

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/30/2018

Reviewed on 10/30/2018

1 Identification

- **Product identifier**
- **Trade name:** PROPYLENE OXIDE, ACS REAGENT
- **Article number:** 20401, 20411, 20412, 20414
- **CAS Number:**
75-56-9
- **EC number:**
200-879-2
- **Index number:**
603-055-00-4
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 1 H224 Extremely flammable liquid and vapor.

.....



GHS06 Skull and crossbones

Acute Tox. 3 H311 Toxic in contact with skin.

Acute Tox. 3 H331 Toxic if inhaled.

.....



GHS08 Health hazard

Muta. 1B H340 May cause genetic defects.

Carc. 1B H350 May cause cancer.

.....



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

(Contd. on page 2)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/30/2018

Reviewed on 10/30/2018

Trade name: PROPYLENE OXIDE, ACS REAGENT

(Contd. of page 1)

· **Label elements**

· **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

propylene oxide

· **Hazard statements**

Extremely flammable liquid and vapor.

Harmful if swallowed.

Toxic in contact with skin or if inhaled.

Causes serious eye irritation.

May cause genetic defects.

May cause cancer.

May cause respiratory irritation.

· **Precautionary statements**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Call a poison center/doctor if you feel unwell.

Rinse mouth.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

IF exposed or concerned: Get medical advice/attention.

Specific treatment (see on this label).

Take off immediately all contaminated clothing and wash it before reuse.

If eye irritation persists: Get medical advice/attention.

In case of fire: Use for extinction: CO₂, powder or water spray.

Store in a well-ventilated place. Keep container tightly closed.

Store in a well-ventilated place. Keep cool.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 3

Fire = 4

Reactivity = 0

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/30/2018

Reviewed on 10/30/2018

Trade name: PROPYLENE OXIDE, ACS REAGENT

(Contd. of page 2)

· **HMIS-ratings (scale 0 - 4)**

HEALTH	3	Health = 3
FIRE	4	Fire = 4
REACTIVITY	0	Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**
75-56-9 propylene oxide
- **Identification number(s)**
- **EC number:** 200-879-2
- **Index number:** 603-055-00-4

4 First-aid measures

- **Description of first aid measures**
- **General information:**
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Remove breathing apparatus only after contaminated clothing have been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.
- **After inhalation:**
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Immediately call a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

US

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/30/2018

Reviewed on 10/30/2018

Trade name: PROPYLENE OXIDE, ACS REAGENT

(Contd. of page 3)

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· **PAC-1:**

73 ppm

· **PAC-2:**

290 ppm

· **PAC-3:**

870 ppm

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect from heat.
Protect against electrostatic charges.
Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Do not gas tight seal receptacle.
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/30/2018

Reviewed on 10/30/2018

Trade name: PROPYLENE OXIDE, ACS REAGENT

(Contd. of page 4)

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

75-56-9 propylene oxide

PEL	Long-term value: 240 mg/m ³ , 100 ppm
REL	See Pocket Guide App. A
TLV	Long-term value: 4.8 mg/m ³ , 2 ppm
DSEN	

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing.
- Wash hands before breaks and at the end of work.
- Store protective clothing separately.
- Avoid contact with the eyes.
- Avoid contact with the eyes and skin.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Liquid
Color:	Colorless
Odor:	Characteristic

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/30/2018

Reviewed on 10/30/2018

Trade name: PROPYLENE OXIDE, ACS REAGENT

(Contd. of page 5)

· Odor threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition Melting point/Melting range: Boiling point/Boiling range:	-111.9 °C (-169.4 °F) 34.3 °C (93.7 °F)
· Flash point:	-37 °C (-34.6 °F)
· Flammability (solid, gaseous):	Not flammable.
· Ignition temperature:	430 °C (806 °F)
· Decomposition temperature:	Not determined.
· Auto igniting:	Not determined.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Explosion limits: Lower: Upper:	1.9 Vol % 15 Vol %
· Vapor pressure at 20 °C (68 °F):	590 hPa (442.5 mm Hg)
· Density at 20 °C (68 °F): · Relative density · Vapor density · Evaporation rate	0.8313 g/cm ³ (6.9372 lbs/gal) Not determined. Not determined. Not determined.
· Solubility in / Miscibility with Water at 20 °C (68 °F):	405 g/l
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity: Dynamic: Kinematic: VOC content:	Not determined. Not determined. 0.00 % 0.0 g/l / 0.00 lb/gal
· Solids content: · Other information	0.0 % No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

US

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/30/2018

Reviewed on 10/30/2018

Trade name: **PROPYLENE OXIDE, ACS REAGENT**

(Contd. of page 6)

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

75-56-9 propylene oxide

Oral	LD50	380 mg/kg (rat)
Dermal	LD50	1,245 mg/kg (rabbit)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

2B

- **NTP (National Toxicology Program)**

R

- **OSHA-Ca (Occupational Safety Health Administration)**

Substance is not listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**

- **General notes:**

Water hazard class 3 (Assessment by list): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/30/2018

Reviewed on 10/30/2018

Trade name: PROPYLENE OXIDE, ACS REAGENT

(Contd. of page 7)

· Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

· UN-Number

· DOT, ADR, IMDG, IATA UN1280

· UN proper shipping name

· DOT Propylene oxide
 · ADR 1280 PROPYLENE OXIDE
 · IMDG, IATA PROPYLENE OXIDE

· Transport hazard class(es)

· DOT



· Class 3 Flammable liquids
 · Label 3

· ADR, IMDG, IATA



· Class 3 Flammable liquids
 · Label 3

· Packing group

· DOT, ADR, IMDG, IATA I

· Environmental hazards: Not applicable.

· Special precautions for user

Warning: Flammable liquids
 · Danger code (Kemler): 339
 · EMS Number: 3-06
 · Stowage Category E
 · Stowage Code SW2 Clear of living quarters.

· Transport in bulk according to Annex II of
 MARPOL73/78 and the IBC Code

Not applicable.

· Transport/Additional information:

· DOT

· Quantity limitations

On passenger aircraft/rail: 1 L
 On cargo aircraft only: 30 L

· Hazardous substance:

100 lbs, 45.4 kg

· ADR

· Excepted quantities (EQ)

Code: E3
 Maximum net quantity per inner packaging: 30 ml
 Maximum net quantity per outer packaging: 300 ml

(Contd. on page 9)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/30/2018

Reviewed on 10/30/2018

Trade name: **PROPYLENE OXIDE, ACS REAGENT**

(Contd. of page 8)

- | | |
|-----------------------------------|--|
| · IMDG | |
| · Limited quantities (LQ) | 0 |
| · Excepted quantities (EQ) | Code: E3 |
| | Maximum net quantity per inner packaging: 30 ml |
| | Maximum net quantity per outer packaging: 300 ml |
| · UN "Model Regulation": | UN 1280 PROPYLENE OXIDE, 3, I |

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

· Section 355 (extremely hazardous substances):
--

Substance is listed.

· Section 313 (Specific toxic chemical listings):
--

Substance is listed.

· TSCA (Toxic Substances Control Act):

Substance is listed.

· Proposition 65

· Chemicals known to cause cancer:

Substance is listed.

· Chemicals known to cause reproductive toxicity for females:
--

Substance is not listed.

· Chemicals known to cause reproductive toxicity for males:
--

Substance is not listed.

· Chemicals known to cause developmental toxicity:

Substance is not listed.

- **Carcinogenic categories**

· EPA (Environmental Protection Agency)
--

B2

· TLV (Threshold Limit Value established by ACGIH)

A3

· NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is listed.

- **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02 GHS06 GHS07 GHS08

- **Signal word** *Danger*

- **Hazard-determining components of labeling:**

propylene oxide

(Contd. on page 10)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/30/2018

Reviewed on 10/30/2018

Trade name: PROPYLENE OXIDE, ACS REAGENT

(Contd. of page 9)

· **Hazard statements**

Extremely flammable liquid and vapor.

Harmful if swallowed.

Toxic in contact with skin or if inhaled.

Causes serious eye irritation.

May cause genetic defects.

May cause cancer.

May cause respiratory irritation.

· **Precautionary statements**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Call a poison center/doctor if you feel unwell.

Rinse mouth.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

IF exposed or concerned: Get medical advice/attention.

Specific treatment (see on this label).

Take off immediately all contaminated clothing and wash it before reuse.

If eye irritation persists: Get medical advice/attention.

In case of fire: Use for extinction: CO2, powder or water spray.

Store in a well-ventilated place. Keep container tightly closed.

Store in a well-ventilated place. Keep cool.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **National regulations:**

· **Information about limitation of use:**

Workers are not allowed to be exposed to this hazardous material. Exceptions can be made by the authorities in certain cases.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Date of preparation / last revision** 10/30/2018 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

(Contd. on page 11)

Safety Data Sheet
acc. to OSHA HCS

Printing date 10/30/2018

Reviewed on 10/30/2018

Trade name: PROPYLENE OXIDE, ACS REAGENT

(Contd. of page 10)

EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
*OSHA: Occupational Safety **Health***
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Flam. Liq. 1: Flammable liquids – Category 1
Acute Tox. 4: Acute toxicity – Category 4
Acute Tox. 3: Acute toxicity – Category 3
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
Muta. 1B: Germ cell mutagenicity – Category 1B
Carc. 1B: Carcinogenicity – Category 1B
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

US

Safety Data Sheet

according to WHS Regulations

Printing date 30.10.2018

Revision: 30.10.2018

1 Identification

· **Product identifier**

· **Trade name:** PROPYLENE OXIDE, ACS REAGENT

· **Article number:** 20401, 20411, 20412, 20414

· **CAS Number:**

75-56-9

· **EC number:**

200-879-2

· **Index number:**

603-055-00-4

· **Relevant identified uses of the substance or mixture and uses advised against**

No further relevant information available.

· **Application of the substance / the mixture** Laboratory chemicals

· **Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

Tel: 215-412-8400 Fax: 215-412-8450

email: sgkcck@aol.com

www.emsdiasum.com

ProSciTech Pty Ltd

11 Carlton Street, Kirwan QLD 4817 Australia

Telephone Number: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)

Emergency Contact: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)

Website: ems.proscitech.com

Emgrid Australia Pty. Ltd.

P.O. Box 118

The Patch VIC 3792

Australia

Tel: 03 9752 1785

Fax: 03 9752 1784

Website: www.emgrid.com.au

· **Further information obtainable from:** Product safety department

· **Emergency telephone number:**

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

2 Hazard(s) Identification

· **Classification of the substance or mixture**



GHS02 flame

Flam. Liq. 1 H224 Extremely flammable liquid and vapour.



GHS06 skull and crossbones

Acute Tox. 3 H311 Toxic in contact with skin.

Acute Tox. 3 H331 Toxic if inhaled.

(Contd. on page 2)

Safety Data Sheet

according to WHS Regulations

Printing date 30.10.2018

Revision: 30.10.2018

Trade name: **PROPYLENE OXIDE, ACS REAGENT**

(Contd. of page 1)



GHS08 health hazard

Muta. 1B H340 May cause genetic defects.

Carc. 1B H350 May cause cancer.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

· **Label elements**

· **GHS label elements**

The substance is classified and labelled according to the Globally Harmonised System (GHS).

· **Hazard pictograms**



GHS02



GHS06



GHS07



GHS08

· **Signal word** *Danger*

· **Hazard-determining components of labelling:**

propylene oxide

· **Hazard statements**

Extremely flammable liquid and vapour.

Harmful if swallowed.

Toxic in contact with skin.

Toxic if inhaled.

Causes serious eye irritation.

May cause genetic defects.

May cause cancer.

May cause respiratory irritation.

· **Precautionary statements**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

Rinse mouth.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

(Contd. on page 3)

Safety Data Sheet according to WHS Regulations

Printing date 30.10.2018

Revision: 30.10.2018

Trade name: PROPYLENE OXIDE, ACS REAGENT

(Contd. of page 2)

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF exposed or concerned: Get medical advice/attention.

Specific treatment (see on this label).

Take off immediately all contaminated clothing and wash it before reuse.

If eye irritation persists: Get medical advice/attention.

In case of fire: Use for extinction: CO₂, powder or water spray.

Store in a well-ventilated place. Keep container tightly closed.

Store in a well-ventilated place. Keep cool.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition and Information on Ingredients

· **Chemical characterisation: Substances**

· **CAS No. Description**

75-56-9 propylene oxide

· **Identification number(s)**

· **EC number:** 200-879-2

· **Index number:** 603-055-00-4

· **SVHC**

75-56-9	propylene oxide
---------	-----------------

4 First Aid Measures

· **Description of first aid measures**

· **General information:**

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Remove breathing equipment only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

· **After inhalation:**

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:** *Immediately wash with water and soap and rinse thoroughly.*

· **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:** *Call for a doctor immediately.*

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed** *No further relevant information available.*

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

AU

(Contd. on page 4)

Safety Data Sheet according to WHS Regulations

Printing date 30.10.2018

Revision: 30.10.2018

Trade name: PROPYLENE OXIDE, ACS REAGENT

(Contd. of page 3)

5 Fire Fighting Measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and Storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect from heat.
Protect against electrostatic charges.
Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Do not seal receptacle gas tight.
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

-AU-

(Contd. on page 5)

Safety Data Sheet

according to WHS Regulations

Printing date 30.10.2018

Revision: 30.10.2018

Trade name: **PROPYLENE OXIDE, ACS REAGENT**

(Contd. of page 4)

8 Exposure controls and personal protection

· **Additional information about design of technical facilities:** No further data; see item 7.

· **Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

75-56-9 propylene oxide

NES Long-term value: 48 mg/m³, 20 ppm

WES Long-term value: 48 mg/m³, 20 ppm

· **Additional information:** The lists valid during the making were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

9 Physical and Chemical Properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Liquid

Colour: Colourless

(Contd. on page 6)

Safety Data Sheet according to WHS Regulations

Printing date 30.10.2018

Revision: 30.10.2018

Trade name: **PROPYLENE OXIDE, ACS REAGENT**

(Contd. of page 5)

· Odour:	Characteristic
· Odour threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/freezing point:	-111.9 °C
Initial boiling point and boiling range:	34.3 °C
· Flash point:	-37 °C
· Flammability (solid, gas):	Not applicable.
· Ignition temperature:	430 °C
· Decomposition temperature:	Not determined.
· Auto-ignition temperature:	Not determined.
· Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
Lower:	1.9 Vol %
Upper:	15 Vol %
· Vapour pressure at 20 °C:	590 hPa
· Density at 20 °C:	0.8313 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water at 20 °C:	405 g/l
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
VOC (EC)	0.00 %
Solids content:	0.0 %
· Other information	No further relevant information available.

10 Stability and Reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

AU

(Contd. on page 7)

Safety Data Sheet

according to WHS Regulations

Printing date 30.10.2018

Revision: 30.10.2018

Trade name: **PROPYLENE OXIDE, ACS REAGENT**

(Contd. of page 6)

11 Toxicological Information

- **Information on toxicological effects**
- **Acute toxicity**

- **LD/LC50 values relevant for classification:**

75-56-9 propylene oxide

Oral	LD50	380 mg/kg (rat)
Dermal	LD50	1,245 mg/kg (rabbit)

- **Primary irritant effect:**
- **Skin corrosion/irritation** No irritant effect.
- **Serious eye damage/irritation** Irritating effect.
- **Respiratory or skin sensitisation** No sensitising effects known.
- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
Muta. 1B, Carc. 1B

12 Ecological Information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 3 (German Regulation) (Assessment by list): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

- | | |
|----------------------------------|----------------------|
| · UN-Number | |
| · ADG, IMDG, IATA | UN1280 |
| · UN proper shipping name | |
| · ADG | 1280 PROPYLENE OXIDE |

(Contd. on page 8)

Safety Data Sheet


according to WHS Regulations

Printing date 30.10.2018

Revision: 30.10.2018

Trade name: PROPYLENE OXIDE, ACS REAGENT

(Contd. of page 7)

· IMDG, IATA	PROPYLENE OXIDE
· Transport hazard class(es)	
· ADG, IMDG, IATA	
	
· Class	3 Flammable liquids.
· Label	3
· Packing group	
· ADG, IMDG, IATA	I
· Environmental hazards:	Not applicable.
· Special precautions for user	Warning: Flammable liquids.
· Danger code (Kemler):	339
· EMS Number:	3-06
· Stowage Category	E
· Stowage Code	SW2 Clear of living quarters.
· Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADG	
· Limited quantities (LQ)	0
· Excepted quantities (EQ)	Code: E3 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 300 ml
· Transport category	1
· Tunnel restriction code	D/E
· IMDG	
· Limited quantities (LQ)	0
· Excepted quantities (EQ)	Code: E3 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 300 ml
· UN "Model Regulation":	UN 1280 PROPYLENE OXIDE, 3, I

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Australian Inventory of Chemical Substances**

Substance is listed.

· **Standard for the Uniform Scheduling of Medicines and Poisons**

S7

· **GHS label elements**

The substance is classified and labelled according to the Globally Harmonised System (GHS).

(Contd. on page 9)

Safety Data Sheet according to WHS Regulations

Printing date 30.10.2018

Revision: 30.10.2018

Trade name: **PROPYLENE OXIDE, ACS REAGENT**

(Contd. of page 8)

· **Hazard pictograms**· **Signal word** *Danger*· **Hazard-determining components of labelling:***propylene oxide*· **Hazard statements***Extremely flammable liquid and vapour.**Harmful if swallowed.**Toxic in contact with skin.**Toxic if inhaled.**Causes serious eye irritation.**May cause genetic defects.**May cause cancer.**May cause respiratory irritation.*· **Precautionary statements***Obtain special instructions before use.**Do not handle until all safety precautions have been read and understood.**Keep away from heat/sparks/open flames/hot surfaces. No smoking.**Ground/bond container and receiving equipment.**Use explosion-proof electrical/ventilating/lighting equipment.**Use only non-sparking tools.**Take precautionary measures against static discharge.**Avoid breathing dust/fume/gas/mist/vapours/spray.**Wash thoroughly after handling.**Do not eat, drink or smoke when using this product.**Use only outdoors or in a well-ventilated area.**Wear protective gloves/protective clothing/eye protection/face protection.**IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.**Rinse mouth.**IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.**IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.**IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.**Continue rinsing.**IF exposed or concerned: Get medical advice/attention.**Specific treatment (see on this label).**Take off immediately all contaminated clothing and wash it before reuse.**If eye irritation persists: Get medical advice/attention.**In case of fire: Use for extinction: CO₂, powder or water spray.**Store in a well-ventilated place. Keep container tightly closed.**Store in a well-ventilated place. Keep cool.**Store locked up.**Dispose of contents/container in accordance with local/regional/national/international regulations.*· **Directive 2012/18/EU**· **Named dangerous substances - ANNEX I** Substance is not listed.· **Seveso category***P5a FLAMMABLE LIQUIDS**H2 ACUTE TOXIC*· **Qualifying quantity (tonnes) for the application of lower-tier requirements** *10 t*

(Contd. on page 10)

Safety Data Sheet

according to WHS Regulations

Printing date 30.10.2018

Revision: 30.10.2018

Trade name: PROPYLENE OXIDE, ACS REAGENT

(Contd. of page 9)

· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50 t

· **National regulations:**

· **Information about limitation of use:**

Workers are not allowed to be exposed to this hazardous material. Exceptions can be made by the authorities in certain cases.

· **Other regulations, limitations and prohibitive regulations**

· **Substances of very high concern (SVHC) according to REACH, Article 57**

75-56-9	propylene oxide
---------	-----------------

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 1: Flammable liquids – Category 1

Acute Tox. 4: Acute toxicity – Category 4

Acute Tox. 3: Acute toxicity – Category 3

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Muta. 1B: Germ cell mutagenicity – Category 1B

Carc. 1B: Carcinogenicity – Category 1B

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

AU

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/30/2018

Reviewed on 10/30/2018

1 Identification

- **Product identifier**
- **Trade name:** PROPYLENE OXIDE, ACS REAGENT
- **Article number:** 20401, 20411, 20412, 20414
- **CAS Number:**
75-56-9
- **EC number:**
200-879-2
- **Index number:**
603-055-00-4
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flammable Liquids - Category 1

H224 Extremely flammable liquid and vapour.



GHS06 Skull and crossbones

Acute Toxicity (Dermal) – Category 3

H311 Toxic in contact with skin.

Acute Toxicity (Inhalation) - Category 3

H331 Toxic if inhaled.



GHS08 Health hazard

Germ Cell Mutagenicity - Category 1B

H340 May cause genetic defects.

Carcinogenicity - Category 1B

H350 May cause cancer.



GHS07

Acute Toxicity (Oral) - Category 4

H302 Harmful if swallowed.

Eye Irritation - Category 2A

H319 Causes serious eye irritation.

Specific Target Organ Toxicity - Single Exposure -
Category 3

H335 May cause respiratory irritation.

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/30/2018

Reviewed on 10/30/2018

Trade name: PROPYLENE OXIDE, ACS REAGENT

(Contd. of page 1)

· **Label elements**

· **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS02 GHS06 GHS07 GHS08

· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

propylene oxide

· **Hazard statements**

Extremely flammable liquid and vapour.

Harmful if swallowed.

Toxic in contact with skin or if inhaled.

Causes serious eye irritation.

May cause genetic defects.

May cause cancer.

May cause respiratory irritation.

· **Precautionary statements**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Ground and bond container and receiving equipment.

Use explosion-proof [electrical/ventilating/lighting] equipment.

Use non-sparking tools.

Take actions to prevent static discharges.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Call a poison center/doctor if you feel unwell.

Rinse mouth.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

IF exposed or concerned: Get medical advice/attention.

Specific measures (see on this label).

If eye irritation persists: Get medical advice/attention.

Wash contaminated clothing before reuse.

In case of fire: Use for extinction: CO₂, powder or water spray.

Store in a well-ventilated place. Keep container tightly closed.

Store in a well-ventilated place. Keep cool.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 3

Fire = 4

Reactivity = 0

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/30/2018

Reviewed on 10/30/2018

Trade name: PROPYLENE OXIDE, ACS REAGENT

(Contd. of page 2)

· **HMIS-ratings (scale 0 - 4)**

HEALTH	3	Health = 3
FIRE	4	Fire = 4
REACTIVITY	0	Reactivity = 0

3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**
75-56-9 propylene oxide
- **Identification number(s)**
- **EC number: 200-879-2**
- **Index number: 603-055-00-4**

4 First-aid measures

- **Description of first aid measures**
- **General information:**
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Remove breathing apparatus only after contaminated clothing have been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.
- **After inhalation:**
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Immediately call a doctor.
- **Information for doctor:**
· **Most important symptoms and effects, both acute and delayed** No further relevant information available.
· **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/30/2018

Reviewed on 10/30/2018

Trade name: PROPYLENE OXIDE, ACS REAGENT

(Contd. of page 3)

- **Environmental precautions:**
 - Dilute with plenty of water.*
 - Do not allow to enter sewers/ surface or ground water.*
- **Methods and material for containment and cleaning up:**
 - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).*
 - Dispose contaminated material as waste according to item 13.*
 - Ensure adequate ventilation.*
- **Reference to other sections**
 - See Section 7 for information on safe handling.*
 - See Section 8 for information on personal protection equipment.*
 - See Section 13 for disposal information.*

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
 - Ensure good ventilation/exhaustion at the workplace.*
 - Open and handle receptacle with care.*
 - Prevent formation of aerosols.*
- **Information about protection against explosions and fires:**
 - Keep ignition sources away - Do not smoke.*
 - Protect from heat.*
 - Protect against electrostatic charges.*
 - Keep respiratory protective device available.*
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
 - Requirements to be met by storerooms and receptacles: Store in a cool location.*
 - Information about storage in one common storage facility: Not required.*
 - Further information about storage conditions:**
 - Keep receptacle tightly sealed.*
 - Do not gas tight seal receptacle.*
 - Store in cool, dry conditions in well sealed receptacles.*
 - Protect from heat and direct sunlight.*
- **Specific end use(s)** *No further relevant information available.*

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** *No further data; see item 7.*
- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

75-56-9 propylene oxide

EL	Long-term value: 2 ppm IARC 2B; S(D)
----	---

EV	Long-term value: 2 ppm
----	------------------------

- **Additional information:** *The lists that were valid during the creation were used as basis.*
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 - Keep away from foodstuffs, beverages and feed.*
 - Immediately remove all soiled and contaminated clothing.*

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/30/2018

Reviewed on 10/30/2018

Trade name: PROPYLENE OXIDE, ACS REAGENT

(Contd. of page 4)

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Liquid

Color: Colorless

· **Odor:** Characteristic

· **Odor threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range: -111.9 °C

Boiling point/Boiling range: 34.3 °C

· **Flash point:** -37 °C

· **Flammability (solid, gaseous):** Not flammable.

· **Ignition temperature:** 430 °C

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Not determined.

(Contd. on page 6)

CA

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/30/2018

Reviewed on 10/30/2018

Trade name: PROPYLENE OXIDE, ACS REAGENT

(Contd. of page 5)

· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Explosion limits:	
Lower:	1.9 Vol %
Upper:	15 Vol %
· Vapor pressure at 20 °C:	590 hPa
· Density at 20 °C:	0.8313 g/cm ³
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water at 20 °C:	405 g/l
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
Solids content:	0.0 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

75-56-9 propylene oxide

Oral	LD50	380 mg/kg (rat)
------	------	-----------------

Dermal	LD50	1,245 mg/kg (rabbit)
--------	------	----------------------

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

2B

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/30/2018

Reviewed on 10/30/2018

Trade name: PROPYLENE OXIDE, ACS REAGENT

(Contd. of page 6)

· **NTP (National Toxicology Program)**

R


12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
*Water hazard class 3 (Assessment by list): extremely hazardous for water
 Do not allow product to reach ground water, water course or sewage system, even in small quantities.
 Danger to drinking water if even extremely small quantities leak into the ground.*
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- | | |
|---|----------------------|
| · UN-Number | UN1280 |
| · DOT, TDG, IMDG, IATA | |
| · UN proper shipping name | Propylene oxide |
| · DOT | 1280 PROPYLENE OXIDE |
| · TDG | PROPYLENE OXIDE |
| · IMDG, IATA | |
| · Transport hazard class(es) | |
| · DOT | |
|  | |
| · Class | 3 Flammable liquids |

(Contd. on page 8)

CA

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/30/2018

Reviewed on 10/30/2018

Trade name: PROPYLENE OXIDE, ACS REAGENT

(Contd. of page 7)

· **Label** 3
 · **TDG, IMDG, IATA**



· **Class** 3 Flammable liquids
 · **Label** 3

· **Packing group**
 · **DOT, TDG, IMDG, IATA** I

· **Environmental hazards:** Not applicable.

· **Special precautions for user** Warning: Flammable liquids
 · **Danger code (Kemler):** 339
 · **EMS Number:** 3-06
 · **Stowage Category** E
 · **Stowage Code** SW2 Clear of living quarters.

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

· **Transport/Additional information:**

· **DOT**
 · **Quantity limitations** On passenger aircraft/rail: 1 L
 On cargo aircraft only: 30 L
 · **Hazardous substance:** 100 lbs, 45.4 kg

· **TDG**
 · **Excepted quantities (EQ)** Code: E3
 Maximum net quantity per inner packaging: 30 ml
 Maximum net quantity per outer packaging: 300 ml

· **IMDG**
 · **Limited quantities (LQ)** 0
 · **Excepted quantities (EQ)** Code: E3
 Maximum net quantity per inner packaging: 30 ml
 Maximum net quantity per outer packaging: 300 ml

· **UN "Model Regulation":** UN 1280 PROPYLENE OXIDE, 3, I

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**
 · **Sara**

· **Section 355 (extremely hazardous substances):**

Substance is listed.

· **Section 313 (Specific toxic chemical listings):**

Substance is listed.

· **TSCA (Toxic Substances Control Act):**

Substance is listed.

(Contd. on page 9)

CA

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/30/2018

Reviewed on 10/30/2018

Trade name: PROPYLENE OXIDE, ACS REAGENT

(Contd. of page 8)

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**

Substance is not listed.

· **Canadian Ingredient Disclosure list (limit 0.1%)**

Substance is not listed.

· **Canadian Ingredient Disclosure list (limit 1%)**

Substance is listed.

· **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS02 GHS06 GHS07 GHS08

· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

propylene oxide

· **Hazard statements**

Extremely flammable liquid and vapour.

Harmful if swallowed.

Toxic in contact with skin or if inhaled.

Causes serious eye irritation.

May cause genetic defects.

May cause cancer.

May cause respiratory irritation.

· **Precautionary statements**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Ground and bond container and receiving equipment.

Use explosion-proof [electrical/ventilating/lighting] equipment.

Use non-sparking tools.

Take actions to prevent static discharges.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Call a poison center/doctor if you feel unwell.

Rinse mouth.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

IF exposed or concerned: Get medical advice/attention.

Specific measures (see on this label).

If eye irritation persists: Get medical advice/attention.

Wash contaminated clothing before reuse.

In case of fire: Use for extinction: CO2, powder or water spray.

Store in a well-ventilated place. Keep container tightly closed.

Store in a well-ventilated place. Keep cool.

(Contd. on page 10)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/30/2018

Reviewed on 10/30/2018

Trade name: PROPYLENE OXIDE, ACS REAGENT

(Contd. of page 9)

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **National regulations:**

· **Information about limitation of use:**

Workers are not allowed to be exposed to this hazardous material. Exceptions can be made by the authorities in certain cases.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Date of the latest revision of the safety data sheet** 10/30/2018 / -

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

CA

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 30.10.2018

Revision: 30.10.2018

1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name:** PROPYLENE OXIDE, ACS REAGENT
- **Article number:** 20401, 20411, 20412, 20414
- **CAS Number:**
75-56-9
- **EC number:**
200-879-2
- **Index number:**
603-055-00-4
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Further information obtainable from:** Product safety department
- **Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Hazards identification

- **Classification of the substance or mixture**



flame

Flam. Liq. 1 H224 Extremely flammable liquid and vapour.



skull and crossbones

Acute Tox. 3 H311 Toxic in contact with skin.

Acute Tox. 3 H331 Toxic if inhaled.



health hazard

Muta. 1B H340 May cause genetic defects.

Carc. 1B H350 May cause cancer.



Acute Tox. 4 H302 Harmful if swallowed.

Eye Irrit. 2 H319 Causes serious eye irritation.

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 30.10.2018

Revision: 30.10.2018

Trade name: PROPYLENE OXIDE, ACS REAGENT

(Contd. of page 1)

STOT SE 3 H335 May cause respiratory irritation.

- **Label elements**
- **GHS label elements**
- **Hazard pictograms**



GHS02 GHS06 GHS08

- **Signal word** *Danger*
- **Hazard-determining components of labelling:**
propylene oxide
- **Hazard statements**
Extremely flammable liquid and vapour.
Harmful if swallowed.
Toxic in contact with skin or if inhaled.
Causes serious eye irritation.
May cause genetic defects.
May cause cancer.
May cause respiratory irritation.

- **Precautionary statements**
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Use explosion-proof electrical/ventilating/lighting equipment.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterisation: Substances**
- **CAS No. Description**
75-56-9 propylene oxide
- **Identification number(s)**
- **EC number:** 200-879-2
- **Index number:** 603-055-00-4

- **SVHC**

75-56-9	propylene oxide
---------	-----------------

(Contd. on page 3)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 30.10.2018

Revision: 30.10.2018

Trade name: PROPYLENE OXIDE, ACS REAGENT

(Contd. of page 2)

4 First aid measures

- **Description of first aid measures**

- **General information:**

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Remove breathing equipment only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

- **After inhalation:**

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

- **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- **After swallowing:** Call for a doctor immediately.

- **Information for doctor:**

- **Most important symptoms and effects, both acute and delayed** No further relevant information available.

- **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

5 Firefighting measures

- **Extinguishing media**

- **Suitable extinguishing agents:**

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- **Special hazards arising from the substance or mixture** No further relevant information available.

- **Advice for firefighters**

- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:**

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

- **Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

- **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

- **Handling:**

- **Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

(Contd. on page 4)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 30.10.2018

Revision: 30.10.2018

Trade name: PROPYLENE OXIDE, ACS REAGENT

(Contd. of page 3)

Open and handle receptacle with care.

Prevent formation of aerosols.

· Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect from heat.

Protect against electrostatic charges.

Keep respiratory protective device available.

· Conditions for safe storage, including any incompatibilities

· Storage:

· Requirements to be met by storerooms and receptacles: *Store in a cool location.*

· Information about storage in one common storage facility: *Not required.*

· Further information about storage conditions:

Keep container tightly sealed.

Do not seal receptacle gas tight.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

· Specific end use(s) *No further relevant information available.*

8 Exposure controls/personal protection

· Additional information about design of technical facilities: *No further data; see item 7.*

· Control parameters

· Ingredients with limit values that require monitoring at the workplace: *Not required.*

· Additional information: *The lists valid during the making were used as basis.*

· Exposure controls

· Personal protective equipment:

· General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 30.10.2018

Revision: 30.10.2018

Trade name: **PROPYLENE OXIDE, ACS REAGENT**

(Contd. of page 4)

· **Eye protection:**

Tightly sealed goggles

9 Physical and chemical properties

· **Information on basic physical and chemical properties**· **General Information**· **Appearance:**

· Form:	Liquid
· Colour:	Colourless
· Odour:	Characteristic
· Odour threshold:	Not determined.

· **pH-value:** Not determined.· **Change in condition**

· Melting point/freezing point:	-111.9 °C
· Initial boiling point and boiling range:	34.3 °C

· **Flash point:** -37 °C· **Flammability (solid, gas):** Not applicable.· **Ignition temperature:** 430 °C· **Decomposition temperature:** Not determined.· **Auto-ignition temperature:** Not determined.· **Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.· **Explosion limits:**

· Lower:	1.9 Vol %
· Upper:	15 Vol %

· **Vapour pressure at 20 °C:** 590 hPa

· Density at 20 °C:	0.8313 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.

· **Solubility in / Miscibility with water at 20 °C:** 405 g/l· **Partition coefficient: n-octanol/water:** Not determined.· **Viscosity:**

· Dynamic:	Not determined.
· Kinematic:	Not determined.

· **Solvent content:**· **VOC (EC)** 0.00 %· **Solids content:** 0.0 %

(Contd. on page 6)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 30.10.2018

Revision: 30.10.2018

Trade name: **PROPYLENE OXIDE, ACS REAGENT**

(Contd. of page 5)

· **Other information** No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity**

· **LD/LC50 values relevant for classification:**

75-56-9 propylene oxide

Oral	LD50	380 mg/kg (rat)
Dermal	LD50	1,245 mg/kg (rabbit)

- **Primary irritant effect:**
- **Skin corrosion/irritation** No irritant effect.
- **Serious eye damage/irritation** Irritating effect.
- **Respiratory or skin sensitisation** No sensitising effects known.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
Muta. 1B, Carc. 1B

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 3 (German Regulation) (Assessment by list): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

IL

(Contd. on page 7)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 30.10.2018

Revision: 30.10.2018


Trade name: **PROPYLENE OXIDE, ACS REAGENT**

(Contd. of page 6)

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

· UN-Number · ADR, IMDG, IATA	UN1280
· UN proper shipping name · ADR · IMDG, IATA	1280 PROPYLENE OXIDE PROPYLENE OXIDE
· Transport hazard class(es) · ADR, IMDG, IATA	
· Class · Label	3 Flammable liquids. 3
· Packing group · ADR, IMDG, IATA	I
· Environmental hazards:	Not applicable.
· Special precautions for user · Danger code (Kemler): · EMS Number: · Stowage Category · Stowage Code	Warning: Flammable liquids. 339 3-06 E SW2 Clear of living quarters.
· Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR · Limited quantities (LQ) · Excepted quantities (EQ)	0 Code: E3 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 300 ml
· Transport category · Tunnel restriction code	1 D/E
· IMDG · Limited quantities (LQ)	0

(Contd. on page 8)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 30.10.2018

Revision: 30.10.2018

Trade name: **PROPYLENE OXIDE, ACS REAGENT**

(Contd. of page 7)

· Excepted quantities (EQ)	Code: E3 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 300 ml
· UN "Model Regulation":	UN 1280 PROPYLENE OXIDE, 3, I

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **GHS label elements**
The substance is classified and labelled according to the Globally Harmonised System (GHS).
- **Hazard pictograms**



GHS02 GHS06 GHS08

- **Signal word** *Danger*
- **Hazard-determining components of labelling:**
propylene oxide
- **Hazard statements**
Extremely flammable liquid and vapour.
Harmful if swallowed.
Toxic in contact with skin or if inhaled.
Causes serious eye irritation.
May cause genetic defects.
May cause cancer.
May cause respiratory irritation.
- **Precautionary statements**
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Use explosion-proof electrical/ventilating/lighting equipment.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** *Substance is not listed.*
- **Seveso category**
P5a FLAMMABLE LIQUIDS
H2 ACUTE TOXIC
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** *10 t*
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** *50 t*
- **National regulations:**
- **Information about limitation of use:**
Workers are not allowed to be exposed to this hazardous material. Exceptions can be made by the authorities in certain cases.

(Contd. on page 9)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 30.10.2018

Revision: 30.10.2018

Trade name: PROPYLENE OXIDE, ACS REAGENT

(Contd. of page 8)

· **Other regulations, limitations and prohibitive regulations**

· **Substances of very high concern (SVHC) according to REACH, Article 57**

75-56-9 | propylene oxide

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 1: Flammable liquids – Category 1

Acute Tox. 4: Acute toxicity – Category 4

Acute Tox. 3: Acute toxicity – Category 3

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Muta. 1B: Germ cell mutagenicity – Category 1B

Carc. 1B: Carcinogenicity – Category 1B

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

IL

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 30.10.2018

Revision: 30.10.2018

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** PROPYLENE OXIDE, ACS REAGENT
- **Article number:** 20401, 20411, 20412, 20414
- **CAS Number:**
75-56-9
- **EC number:**
200-879-2
- **Index number:**
603-055-00-4
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Further information obtainable from:** Product safety department
- **1.4 Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Liq. 1 H224 Extremely flammable liquid and vapour.



GHS06 skull and crossbones

Acute Tox. 3 H311 Toxic in contact with skin.

Acute Tox. 3 H331 Toxic if inhaled.



GHS08 health hazard

Muta. 1B H340 May cause genetic defects.

Carc. 1B H350 May cause cancer.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

(Contd. on page 2)

GB

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 30.10.2018

Revision: 30.10.2018

Trade name: **PROPYLENE OXIDE, ACS REAGENT**

(Contd. of page 1)

Eye Irrit. 2 H319 Causes serious eye irritation.
STOT SE 3 H335 May cause respiratory irritation.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The substance is classified and labelled according to the CLP regulation.

· **Hazard pictograms**



GHS02 GHS06 GHS08

· **Signal word** *Danger*

· **Hazard-determining components of labelling:**

propylene oxide

· **Hazard statements**

H224 Extremely flammable liquid and vapour.

H302 Harmful if swallowed.

H311+H331 Toxic in contact with skin or if inhaled.

H319 Causes serious eye irritation.

H340 May cause genetic defects.

H350 May cause cancer.

H335 May cause respiratory irritation.

· **Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P241 Use explosion-proof electrical/ventilating/lighting equipment.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **3.1 Chemical characterisation: Substances**

· **CAS No. Description**

75-56-9 propylene oxide

· **Identification number(s)**

· **EC number:** 200-879-2

· **Index number:** 603-055-00-4

· **SVHC**

75-56-9	propylene oxide
---------	-----------------

GB

(Contd. on page 3)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 30.10.2018

Revision: 30.10.2018

Trade name: **PROPYLENE OXIDE, ACS REAGENT**

(Contd. of page 2)

SECTION 4: First aid measures· **4.1 Description of first aid measures**· **General information:***Immediately remove any clothing soiled by the product.**Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.**Remove breathing equipment only after contaminated clothing have been completely removed.**In case of irregular breathing or respiratory arrest provide artificial respiration.*· **After inhalation:***Supply fresh air or oxygen; call for doctor.**In case of unconsciousness place patient stably in side position for transportation.*· **After skin contact:** *Immediately wash with water and soap and rinse thoroughly.*· **After eye contact:***Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.*· **After swallowing:** *Call for a doctor immediately.*· **4.2 Most important symptoms and effects, both acute and delayed** *No further relevant information available.*· **4.3 Indication of any immediate medical attention and special treatment needed***No further relevant information available.***SECTION 5: Firefighting measures**· **5.1 Extinguishing media**· **Suitable extinguishing agents:***CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.*· **5.2 Special hazards arising from the substance or mixture** *No further relevant information available.*· **5.3 Advice for firefighters**· **Protective equipment:** *Mouth respiratory protective device.***SECTION 6: Accidental release measures**· **6.1 Personal precautions, protective equipment and emergency procedures***Wear protective equipment. Keep unprotected persons away.*· **6.2 Environmental precautions:***Dilute with plenty of water.**Do not allow to enter sewers/ surface or ground water.*· **6.3 Methods and material for containment and cleaning up:***Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).**Dispose contaminated material as waste according to item 13.**Ensure adequate ventilation.*· **6.4 Reference to other sections***See Section 7 for information on safe handling.**See Section 8 for information on personal protection equipment.**See Section 13 for disposal information.***SECTION 7: Handling and storage**· **7.1 Precautions for safe handling***Ensure good ventilation/exhaustion at the workplace.**Open and handle receptacle with care.**Prevent formation of aerosols.*

(Contd. on page 4)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 30.10.2018

Revision: 30.10.2018

Trade name: **PROPYLENE OXIDE, ACS REAGENT**

(Contd. of page 3)

- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect from heat.
Protect against electrostatic charges.
Keep respiratory protective device available.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Do not seal receptacle gas tight.
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

75-56-9 propylene oxide

WEL	Long-term value: 12 mg/m ³ , 5 ppm
	Carc

- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.
- **Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**



Protective gloves

- The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

(Contd. on page 5)

GB

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 30.10.2018

Revision: 30.10.2018

Trade name: **PROPYLENE OXIDE, ACS REAGENT**

(Contd. of page 4)

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

· Form:	Liquid
· Colour:	Colourless
· Odour:	Characteristic
· Odour threshold:	Not determined.

- **pH-value:** Not determined.

- **Change in condition**

· Melting point/freezing point:	-111.9 °C
· Initial boiling point and boiling range:	34.3 °C

- **Flash point:** -37 °C

- **Flammability (solid, gas):** Not applicable.

- **Ignition temperature:** 430 °C

- **Decomposition temperature:** Not determined.

- **Auto-ignition temperature:** Not determined.

- **Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

- **Explosion limits:**

· Lower:	1.9 Vol %
· Upper:	15 Vol %

- **Vapour pressure at 20 °C:** 590 hPa

· Density at 20 °C:	0.8313 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.

- **Solubility in / Miscibility with water at 20 °C:** 405 g/l

- **Partition coefficient: n-octanol/water:** Not determined.

- **Viscosity:**

· Dynamic:	Not determined.
· Kinematic:	Not determined.

(Contd. on page 6)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 30.10.2018

Revision: 30.10.2018

Trade name: **PROPYLENE OXIDE, ACS REAGENT**

(Contd. of page 5)

· Solvent content: VOC (EC)	0.00 %
· Solids content:	0.0 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**
Harmful if swallowed.
Toxic in contact with skin or if inhaled.

- **LD/LC50 values relevant for classification:**

75-56-9 propylene oxide

Oral	LD50	380 mg/kg (rat)
Dermal	LD50	1,245 mg/kg (rabbit)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**
Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity**
May cause genetic defects.
- **Carcinogenicity**
May cause cancer.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure**
May cause respiratory irritation.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.

(Contd. on page 7)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 30.10.2018

Revision: 30.10.2018

Trade name: **PROPYLENE OXIDE, ACS REAGENT**


(Contd. of page 6)

- **Additional ecological information:**
- **General notes:**
Water hazard class 3 (German Regulation) (Assessment by list): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- | | |
|--|--|
| · 14.1 UN-Number
· ADR, IMDG, IATA | UN1280 |
| · 14.2 UN proper shipping name
· ADR
· IMDG, IATA | 1280 PROPYLENE OXIDE
PROPYLENE OXIDE |
| · 14.3 Transport hazard class(es)
· ADR, IMDG, IATA | |
|  | |
| · Class
· Label | 3 Flammable liquids.
3 |
| · 14.4 Packing group
· ADR, IMDG, IATA | I |
| · 14.5 Environmental hazards: | Not applicable. |
| · 14.6 Special precautions for user
· Danger code (Kemler):
· EMS Number:
· Stowage Category
· Stowage Code | Warning: Flammable liquids.
339
3-06
E
SW2 Clear of living quarters. |
| · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |

(Contd. on page 8)

GB

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 30.10.2018

Revision: 30.10.2018

Trade name: **PROPYLENE OXIDE, ACS REAGENT**

(Contd. of page 7)

· **Transport/Additional information:**· **ADR**

- **Limited quantities (LQ)** 0
- **Excepted quantities (EQ)** Code: E3
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 300 ml
- **Transport category** 1
- **Tunnel restriction code** D/E

· **IMDG**

- **Limited quantities (LQ)** 0
- **Excepted quantities (EQ)** Code: E3
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 300 ml

· **UN "Model Regulation":**

UN 1280 PROPYLENE OXIDE, 3, I

SECTION 15: Regulatory information· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **Seveso category**
P5a FLAMMABLE LIQUIDS
H2 ACUTE TOXIC
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 10 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 28, 29

· **National regulations:**· **Information about limitation of use:**

Workers are not allowed to be exposed to this hazardous material. Exceptions can be made by the authorities in certain cases.

· **Other regulations, limitations and prohibitive regulations**· **Substances of very high concern (SVHC) according to REACH, Article 57**

75-56-9 propylene oxide

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

(Contd. on page 9)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 30.10.2018

Revision: 30.10.2018

Trade name: PROPYLENE OXIDE, ACS REAGENT

(Contd. of page 8)

LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 1: Flammable liquids – Category 1
Acute Tox. 4: Acute toxicity – Category 4
Acute Tox. 3: Acute toxicity – Category 3
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Muta. 1B: Germ cell mutagenicity – Category 1B
Carc. 1B: Carcinogenicity – Category 1B
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

GB

化学品安全技术说明书

根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2018.10.30

在 2018.10.30 审核

1 化学品及企业标识

- 产品识别者
- 化学品中文(英文)名称, 化学品俗名或商品名: PROPYLENE OXIDE, ACS REAGENT
- 商品编号: 20401, 20411, 20412, 20414
- CAS 编号:
75-56-9
- 欧盟编号:
200-879-2
- 欧盟编号:
603-055-00-4
- 相应纯物质或者混合物的相关下位用途及禁止用途 无相关详细资料。
- 原材料的应用/准备工作进行 实验室化学物
- 安全技术说明书内供应商详细信息
- 企业名称:
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- 可获取更多资料的部门: Product safety department
- 紧急联系电话号码:
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 危险性概述

· 紧急情况概述:

无色的, 液体, 极端易燃液体和蒸气。吞咽有害。皮肤接触或吸入可致中毒。造成严重眼刺激。可能导致遗传性缺陷。可能致癌。可引起呼吸道刺激。

· GHS危险性类别



火焰

易燃液体 第1类

H224 极端易燃液体和蒸气



骷髅和交叉骨

急性毒性(经皮肤) 第3类

H311 皮肤接触会中毒

急性毒性(吸入) 第3类

H331 吸入会中毒



健康危害

生殖细胞致突变性 第1B类

H340 可能导致遗传性缺陷

致癌性 第1B类

H350 可能致癌



(在 2 页继续)

化学品安全技术说明书

根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2018.10.30

在 2018.10.30 审核

化学品中文(英文)名称, 化学品俗名或商品名 : PROPYLENE OXIDE, ACS REAGENT

(在 1 页继续)

急性毒性(经口) 第4类 H302 吞咽有害
 严重眼睛损伤/眼睛刺激性 第2类 H319 造成严重眼刺激
 特定靶器官系统毒性(单次接触) 第3类 H335 可引起呼吸道刺激

· 标签因素

· **GHS卷标元素** 本化学物质根据化学物质分类及标记全球协调制度(GHS)进行了分类及标记。

· 图示



GHS02 GHS06 GHS08

· 名称 危险

· 标签上辨别危险的成份:

甲基环氧乙烷

· 危险字句

极端易燃液体和蒸气

吞咽有害

皮肤接触或吸入可致中毒

造成严重眼刺激

可能导致遗传性缺陷

可能致癌

可引起呼吸道刺激

· 警戒字句

· 预防措施

远离热源/火花/明火/热表面。禁止吸烟

使用防爆的电气/通风/照明/设备

· 事故响应

如皮肤(或头发)沾染:立即脱掉所有沾染的衣服。用水清洗皮肤/淋浴

如进入眼睛:用水小心冲洗几分钟。如戴隐形眼镜并可方便地取出,取出隐形眼镜。继续冲洗

· 安全储存

存放处须加锁

· 废弃处置

处置内装物/容器按照地方/区域/国家/国际规章

· 其他有害性

· PBT(残留性、生物浓缩性、毒性物质) 及 vPvB(高残留性、高生物浓缩性物质)评价结果

· PBT(残留性、生物浓缩性、毒性物质) 不适用的

· vPvB(高残留性、高生物浓缩性物质): 不适用的

3 成分/组成信息

· 纯品

· CAS号 化学名, 通用名

75-56-9 甲基环氧乙烷

· 鉴别编号:

· 欧盟编号: 200-879-2

· 欧盟编号: 603-055-00-4

-CN

(在 3 页继续)

化学品安全技术说明书

根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2018.10.30

在 2018.10.30 审核

化学品中文(英文)名称, 化学品俗名或商品名 : PROPYLENE OXIDE, ACS REAGENT

(在 2 页继续)

4 急救措施

· 应急措施要领

· 总说明:

马上脱下染有该产品的衣服.

中毒的症状可能会在几个小时以后才出现;因此在发生事故之后起码要有 48 小时的医疗观察.

只在彻底地脱去了已被污染的衣服之后才能移走呼吸仪器.

万一出现了不规则的呼吸或呼吸的阻碍,请为病人提供人工呼吸.

· 吸入:

供给新鲜空气或氧气;叫医生.

万一病人不清醒时,请让病人侧躺以便移动.

· 皮肤接触: 马上用水和肥皂进行彻底的冲洗.

· 眼睛接触: 张开眼睛在流水下冲洗数分钟. 如果症状仍然持续,请咨询医生.

· 食入: 马上召唤医生.

· 给医生的资料:

· **最重要的急慢性症状及其影响** 无相关详细资料.

· **需要及时的医疗处理及特别处理的症状** 无相关详细资料.

5 消防措施

· 灭火方法

· **灭火的方法和灭火剂:** 二氧化碳 (CO₂)、灭火粉末或洒水. 使用洒水或抗酒精泡沫灭火剂扑灭较大的火种.

· **特别危险性** 无相关详细资料.

· 特殊灭火方法

· **消防人员特殊的防护装备:** 口腔呼吸保护装置.

6 泄漏应急处理

· **保护措施** 带上保护仪器. 让未受到保护的人们远离.

· 环境保护措施:

用大量的水进行稀释.

切勿让其进入下水道/水面或地下水.

· 密封及净化方法和材料:

吸收液体粘合原料 (沙粒、硅藻土、酸性粘合剂、通用粘合剂、锯屑).

根据第 13 条条款弃置受污染物.

确保有足够的通风装置.

· 参照其他部分

有关安全处理的资料请参阅第 7 节.

有关个人防护装备的资料请参阅第 8 节.

有关弃置的资料请参阅第 13 节.

7 操作处置与储存

· 操作处置

· 储存

确保工作间有良好的通风/排气装置.

小心打开及处理贮藏器.

防止气溶胶的形成.

· 有关火灾及防止爆炸的资料:

远离火源 - 切勿吸烟.

防热.

(在 4 页继续)

化学品安全技术说明书

根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2018.10.30

在 2018.10.30 审核

化学品中文(英文)名称, 化学品俗名或商品名 : PROPYLENE OXIDE, ACS REAGENT

(在 3 页继续)

防静电.
提供呼吸保护装置.

· **混合危险性等安全储存条件**

· **储存:**

- **储存库和容器须要达到的要求:** 储存在阴凉的位置.
- **有关使用一个普通的储存设施来储存的资料:** 不需要.
- **有关储存条件的更多资料:**
 - 将容器密封.
 - 切勿将贮藏器气密式封上.
 - 储存密封的贮藏器内,并放在阴凉、干爽的位置.
 - 免受接触热力和直接受阳光照射.
- **具体的最终用户** 无相关详细资料.

8 接触控制和个体防护

- **工程控制方法:** 没有进一步数据;见第 7 项.

· **控制变数**

· **在工作场需要监控的限值成分**

75-56-9 甲基环氧乙烷

OEL (CN)	PC-TWA: 5 mg/m ³
PEL (TW)	PC-TWA: 48 mg/m ³ , 20 ppm

- **额外的资料:** 制作期间有效的清单将作为基础来使用.

· **泄漏控制**

· **个人防护设备:**

· **一般保护和卫生措施:**

- 远离食品、饮料和饲料.
- 立即除去所有的不洁的和被污染的衣服.
- 在休息之前和工作完毕后请清洗双手.
- 分开储存保护性衣服.
- 避免和眼睛接触.
- 避免和眼睛及皮肤接触.

· **呼吸系统防护:**

如果曾短暂接触或在低污染的情况下,请使用呼吸过滤装置. 如果曾深入或较长时间接触,请使用独立的呼吸保护装置.

· **手防护:**



保护手套

手套的物料必须是不渗透性的,且能抵抗该产品/物质/添加剂.

基于缺乏测试,对于产品/制剂/化学混合物,并不会提供手套材料的建议

选择手套材料时,请注意材料的渗透时间,渗透率和降解参数

- **手套材料** 选择合适的手套不单取决于材料,亦取决于质量特征,以及来自哪一间生产厂家
- **渗入手套材料的时间** 请向劳保手套生产厂家获取准确的破裂时间并观察实际的破裂时间

(在 5 页继续)

-CN-

化学品安全技术说明书

根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2018.10.30

在 2018.10.30 审核

化学品中文(英文)名称, 化学品俗名或商品名 : PROPYLENE OXIDE, ACS REAGENT

· 眼睛防护:

(在 4 页继续)



密封的护目镜

9 理化特性

· 有关基本物理及化学特性的信息

· 一般说明

· 外观:

· 形状: 液体

· 颜色: 无色的

· 气味: 有特性的

· 嗅觉阈限: 未决定.

· pH值: 未决定.

· 条件的更改

· 熔点: -111.9 °C

· 沸点/初沸点和沸程: 34.3 °C

· 闪点: -37 °C

· 可燃性(固体、气体): 不适用的

· 点火温度: 430 °C

· 分解温度: 未决定.

· 自燃温度: 未决定.

· 爆炸的危险性: 该产品并非爆炸性的然而有可能形成可爆炸性的空气/蒸汽混合物

· 爆炸极限:

· 较低: 1.9 Vol %

· 较高: 15 Vol %

· 蒸气压 在 20 °C: 590 hPa

· 密度 在 20 °C: 0.8313 g/cm³

· 相对密度: 未决定.

· 蒸气密度: 未决定.

· 蒸发速率: 未决定.

· 溶解性

· 水 在 20 °C: 405 g/l

· n-辛醇/水分配系数: 未决定.

· 黏性:

· 动态: 未决定.

· 运动学的: 未决定.

· 固体成份: 0.0 %

· 其他信息: 无相关详细资料。

CN

(在 6 页继续)

化学品安全技术说明书

根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2018.10.30

在 2018.10.30 审核

化学品中文(英文)名称, 化学品俗名或商品名 : PROPYLENE OXIDE, ACS REAGENT

(在 5 页继续)

10 稳定性和反应性

- **反应性** 无相关详细资料。
- **稳定性**
- **热分解/要避免的情况**: 如果遵照规格使用则不会分解。
- **有害反应可能性** 未有已知的危险反应。
- **应避免的条件** 无相关详细资料。
- **不相容的物质**: 无相关详细资料。
- **危险的分解产物**: 未知有危险的分解产品。

11 毒理学信息

- **对毒性学影响的信息**
- **急性毒性**:

- **与分类相关的 LD/LC50 值:**

75-56-9 甲基环氧乙烷

口腔	LD50	380 mg/kg (rat)
皮肤	LD50	1,245 mg/kg (rabbit)

- **主要的刺激性影响**:
- **皮肤**: 没有刺激性影响。
- **在眼睛上面**: 刺激的影响。
- **致敏作用**: 没有已知的敏化影响。
- **对以下组别可能产生影响的数据**:
- **CMR作用 (致癌、导致基因突变、对生殖系统有害)**
生殖细胞致突变性 第1B类, 致癌性 第1B类

12 生态学信息

- **生态毒性**
- **水生毒性**: 无相关详细资料。
- **持久性和降解性** 无相关详细资料。
- **环境系统习性**:
- **潜在的生物累积性** 无相关详细资料。
- **土壤内移动性** 无相关详细资料。
- **额外的生态学资料**:
- **总括注解**:
水危害级别 3 (德国规例) (评估): 对水是极其危险的
即使是小量, 不要让该产品接触地下水、水道或污水系统。
即使是极其小量的产品渗入地下也会对饮用水造成危险。
- **PBT(残留性、生物浓缩性、毒性物质) 及 vPvB(高残留性、高生物浓缩性物质)评价结果**
- **PBT(残留性、生物浓缩性、毒性物质)** 不适用的
- **vPvB(高残留性、高生物浓缩性物质)**: 不适用的
- **其他副作用** 无相关详细资料。

13 废弃处置

- **废弃处置方法**
- **建议**: 不能将该产品和家居垃圾一起丢弃. 不要让该产品接触污水系统。

(在 7 页继续)

化学品安全技术说明书

根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2018.10.30

在 2018.10.30 审核

化学品中文(英文)名称, 化学品俗名或商品名 : PROPYLENE OXIDE, ACS REAGENT

(在 6 页继续)

- 受污染的容器和包装:
- 建议: 必须根据官方的规章来丢弃.
- 建议的清洗剂: 如有必要请使用水及清洁剂进行清洁.

14 运输信息

· 联合国危险货物编号(UN号)

· ADR, IMDG, IATA UN1280

· UN适当装船名

· ADR 1280 氧化丙烯
· IMDG, IATA PROPYLENE OXIDE

· 运输危险等级

· ADR, IMDG, IATA



· 级别 3 易燃液体
· 标签 3

· 包装组别

· ADR, IMDG, IATA I

· 危害环境: 不适用的

· 用户特别预防措施

警告: 易燃液体

· 危险编码:

339

· EMS 号码:

3-06

· Stowage Category

E

· Stowage Code

SW2 Clear of living quarters.

· MARPOL73/78(针对船舶引起的海洋污染预防协约)
附件书2及根据IBC Code(国际装船货物编码)的大量
运送

不适用的

· 运输/额外的资料:

· ADR

· Excepted quantities (EQ)

Code: E3

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 300 ml

· IMDG

· Limited quantities (LQ)

0

· Excepted quantities (EQ)

Code: E3

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 300 ml

· UN "标准规定":

UN 1280 氧化丙烯, 3, I

CN

(在 8 页继续)

化学品安全技术说明书

根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2018.10.30

在 2018.10.30 审核

化学品中文(英文)名称, 化学品俗名或商品名: PROPYLENE OXIDE, ACS REAGENT

(在 7 页继续)

15 法规信息

- 对相应纯物质或者混合物的安全、保健及环境法规/法律
- 危险化学品安全管理条例

- 危险化学品目录

75-56-9	甲基环氧乙烷
---------	--------

- 新化学物质环境管理办法

- 中国现有化学物质名录

有列出物质.

- GHS卷标元素 本化学物质根据化学物质分类及标记全球协调制度(GHS)进行了分类及标记。

- 图示



GHS02 GHS06 GHS08

- 名称 危险

- 标签上辨别危险的成份:

甲基环氧乙烷

- 危险字句

极端易燃液体和蒸气

吞咽有害

皮肤接触或吸入可致中毒

造成严重眼刺激

可能导致遗传性缺陷

可能致癌

可引起呼吸道刺激

- 警戒字句

- 预防措施

远离热源/火花/明火/热表面。禁止吸烟

使用防爆的电气/通风/照明/设备

- 事故响应

如皮肤(或头发)沾染:立即脱掉所有沾染的衣服。用水清洗皮肤/淋浴

如进入眼睛:用水小心冲洗几分钟。如戴隐形眼镜并可方便地取出,取出隐形眼镜。继续冲洗

- 安全储存

存放处须加锁

- 废弃处置

处置内装物/容器按照地方/区域/国家/国际规章

- 国家的规章:

- 有关使用限制的资料: 禁止员工接触该危险物料. 在某些情况可由当局作出例外决定.

- 化学物质安全性评价: 尚未进行化学物质安全性评价

16 其他信息

该资料是基于我们目前的知识。然而,这并不构成对任何特定产品特性的担保并且不建立一个法律上有效的合同关系。

- 缩写:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

(在 9 页继续)

化学品安全技术说明书

根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2018.10.30

在 2018.10.30 审核

化学品中文(英文)名称, 化学品俗名或商品名 : PROPYLENE OXIDE, ACS REAGENT

(在 8 页继续)

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: 持久性生物累积性有毒物质

vPvB: very Persistent and very Bioaccumulative

易燃液体 第1类: Flammable liquids – Category 1

急性毒性(经口) 第4类: Acute toxicity – Category 4

急性毒性(经皮肤) 第3类: Acute toxicity – Category 3

严重眼睛损伤/眼睛刺激性 第2类: Serious eye damage/eye irritation – Category 2

生殖细胞致突变性 第1B类: Germ cell mutagenicity – Category 1B

致癌性 第1B类: Carcinogenicity – Category 1B

特定靶器官系统毒性 (单次接触) 第3类: Specific target organ toxicity (single exposure) – Category 3

CN

Bezpečnostní list

podle 1907/2006/ES, Článek 31

Datum vydání: 30.10.2018

Revize: 30.10.2018

ODDÍL 1: Identifikace látky/směsi a společnosti/podniku

- **1.1 Identifikátor výrobku**
- **Obchodní označení:** PROPYLENE OXIDE, ACS REAGENT
- **Číslo výrobku:** 20401, 20411, 20412, 20414
- **Číslo CAS:**
75-56-9
- **Číslo ES:**
200-879-2
- **Indexové číslo:**
603-055-00-4
- **1.2 Příslušná určená použití látky nebo směsi a nedoporučená použití**
Další relevantní informace nejsou k dispozici.
- **Použití látky / přípravku** Laboratorní chemikálie
- **1.3 Podrobné údaje o dodavateli bezpečnostního listu**
- **Identifikace výrobce/dovozce:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Obor poskytující informace:** Product safety department
- **1.4 Telefonní číslo pro naléhavé situace:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

ODDÍL 2: Identifikace nebezpečnosti

- **2.1 Klasifikace látky nebo směsi**
- **Klasifikace v souladu s nařízením (ES) č. 1272/2008**



GHS02 plamen

Flam. Liq. 1 H224 Extrémně hořlavá kapalina a páry.



GHS06 lebka se zkříženými hnáty

Acute Tox. 3 H311 Toxický při styku s kůží.

Acute Tox. 3 H331 Toxický při vdechování.



GHS08 nebezpečnost pro zdraví

Muta. 1B H340 Může vyvolat genetické poškození.

Carc. 1B H350 Může vyvolat rakovinu.



GHS07

Acute Tox. 4 H302 Zdraví škodlivý při požití.

(pokračování na straně 2)

Bezpečnostní list

podle 1907/2006/ES, Článek 31

Datum vydání: 30.10.2018

Revize: 30.10.2018

Obchodní označení: PROPYLENE OXIDE, ACS REAGENT

(pokračování strany 1)

Eye Irrit. 2 H319 Způsobuje vážné podráždění očí.
 STOT SE 3 H335 Může způsobit podráždění dýchacích cest.

2.2 Prvky označení

- **Označování v souladu s nařízením (ES) č. 1272/2008** Látka je klasifikována a označena podle nařízení CLP.
- **Výstražné symboly nebezpečnosti**



GHS02 GHS06 GHS08

- **Signální slovo** Nebezpečí

- **Nebezpečné komponenty k etiketování:**
propylenoxid

Standardní věty o nebezpečnosti

- H224 Extrémně hořlavá kapalina a páry.
 H302 Zdraví škodlivý při požití.
 H311+H331 Toxický při styku s kůží a při vdechování.
 H319 Způsobuje vážné podráždění očí.
 H340 Může vyvolat genetické poškození.
 H350 Může vyvolat rakovinu.
 H335 Může způsobit podráždění dýchacích cest.

Pokyny pro bezpečné zacházení

- P210 Chraňte před teplem, horkými povrchy, jiskrami, otevřeným ohněm a jinými zdroji zapálení. Zákaz kouření.
 P241 Používejte elektrické/ventilační/osvětlovací/zařízení do výbušného prostředí.
 P303+P361+P353 PŘI STYKU S KŮŽÍ (nebo s vlasy): Veškeré kontaminované části oděvu okamžitě svlékněte. Opláchněte kůži vodou/osprchujte.
 P305+P351+P338 PŘI ZASAŽENÍ OČÍ: Několik minut opatrně vyplachujte vodou. Vyjměte kontaktní čočky, jsou-li nasazeny a pokud je lze vyjmout snadno. Pokračujte ve vyplachování.
 P405 Skladujte uzamčené.
 P501 Obsah/nádobu likvidujte v souladu s místními/regionálními/národními/mezinárodními předpisy.

2.3 Další nebezpečnost

- **Výsledky posouzení PBT a vPvB**
- **PBT:** Nedá se použít.
- **vPvB:** Nedá se použít.

ODDÍL 3: Složení/informace o složkách

- **3.1 Chemická charakteristika: Látky**
- **Číslo CAS:**
75-56-9 propylenoxid
- **Identifikační číslo(číslo)**
- **Číslo ES:** 200-879-2
- **Indexové číslo:** 603-055-00-4

SVHC

75-56-9	propylenoxid
---------	--------------

cz

(pokračování na straně 3)

Bezpečnostní list

podle 1907/2006/ES, Článek 31

Datum vydání: 30.10.2018

Revize: 30.10.2018

Obchodní označení: PROPYLENE OXIDE, ACS REAGENT

(pokračování strany 2)

ODDÍL 4: Pokyny pro první pomoc

- **4.1 Popis první pomoci**
- **Všeobecné pokyny:**
*Neprodlleň odstranit části oděvu znečištěné produktem.
 Příznaky otravy se mohou projevit až po mnoha hodinách, proto je nutný lékařský dohled nejméně 48 hodin po nehodě.
 Ochranu dýchání odstranit teprve po odstranění znečištěných částí oděvu.
 Při nepravidelném dechu nebo zástavě dechu provést umělé dýchání.*
- **Při nadýchání:**
*Přívod čerstvého vzduchu nebo kyslíku; vyhledat lékařskou pomoc.
 Při bezvědomí uložit a přepravit ve stabilní poloze na boku.*
- **Při styku s kůží:** *Ihned omýt vodou a mýdlem a dobře opláchnout.*
- **Při zasažení očí:**
Oči s otevřenými víčky vyplachovat po více minut proudem tekoucí vody. Při přetrvávajících potížích se poradit s lékařem.
- **Při požití:** *Ihned vyhledat lékaře.*
- **4.2 Nejdůležitější akutní a opožděné symptomy a účinky** *Další relevantní informace nejsou k dispozici.*
- **4.3 Pokyn týkající se okamžité lékařské pomoci a zvláštního ošetření**
Další relevantní informace nejsou k dispozici.

ODDÍL 5: Opatření pro hašení požáru

- **5.1 Hasiva**
- **Vhodná hasiva:**
CO₂, hasící prášek nebo rozstříkované vodní paprsky. Větší ohně zdotat rozstříkovanými vodními paprsky nebo pěnou odolnou vůči alkoholu.
- **5.2 Zvláštní nebezpečnost vyplývající z látky nebo směsi** *Další relevantní informace nejsou k dispozici.*
- **5.3 Pokyny pro hasiče**
- **Zvláštní ochranné prostředky pro hasiče:** *Použít ochranný dýchací přístroj.*

ODDÍL 6: Opatření v případě náhodného úniku

- **6.1 Opatření na ochranu osob, ochranné prostředky a nouzové postupy**
Nosit ochrannou výstroj. Nechráněné osoby se nesmí přibližovat.
- **6.2 Opatření na ochranu životního prostředí:**
*Zředit velkým množstvím vody.
 Nenechat proniknout do kanalizace/povrchových vod/podzemních vod.*
- **6.3 Metody a materiál pro omezení úniku a pro čištění:**
*Sebrat s materiály, vážícími kapaliny (písek, šterkový písek, pojidla kyselin, univerzální pojidla, piliny).
 Kontaminovaný materiál odstranit jako odpad podle bodu 13.
 Zajistit dostatečné větrání.*
- **6.4 Odkaz na jiné oddíly**
*Informace o bezpečnému zacházení viz kapitola 7.
 Informace o osobní ochranné výstroji viz kapitola 8.
 Informace k odstranění viz kapitola 13.*

ODDÍL 7: Zacházení a skladování

- **7.1 Opatření pro bezpečné zacházení**
Na pracovišti zabezpečit dobré větrání a odsávání.

(pokračování na straně 4)

Bezpečnostní list

podle 1907/2006/ES, Článek 31

Datum vydání: 30.10.2018

Revize: 30.10.2018

Obchodní označení: PROPYLENE OXIDE, ACS REAGENT

(pokračování strany 3)

Nádrž opatrně otevřít a zacházet s ní opatrně.

Zamezit vytváření aerosolů.

· **Upozornění k ochraně před ohněm a explozí:**

Nepřibližovat se ze zápalnými zdroji - nekouřit.

Chránit před horkem.

Zajistit proti elektrostatickému náboji.

Mít připravené ochranné dýchací přístroje.

· **7.2 Podmínky pro bezpečné skladování látek a směsí včetně neslučitelných látek a směsí**

· **Pokyny pro skladování:**

· **Požadavky na skladovací prostory a nádoby:** Skladovat na chladném místě.

· **Upozornění k hromadnému skladování:** Není nutné.

· **Další údaje k podmínkám skladování:**

Nádrž držet neprodyšně uzavřenou.

Nádrž neuzavírat vzduchotěsně.

Skladovat v dobře uzavřených nádobách v chladu a suchu.

Chránit před horkem a přímým slunečním světlem.

· **7.3 Specifické konečné / specifická konečná použití** Další relevantní informace nejsou k dispozici.

ODDÍL 8: Omezování expozice / osobní ochranné prostředky

· **Technická opatření:** Žádné další údaje, viz bod 7.

· **8.1 Kontrolní parametry**

· **Kontrolní parametry:** Odpadá

· **Další upozornění:** Jako podklad sloužily při zhotovení platné listiny.

· **8.2 Omezování expozice**

· **Osobní ochranné prostředky:**

· **Všeobecná ochranná a hygienická opatření:**

Zdržovat od potravin, nápojů a krmiv.

Zašpiněné, nasáknuté šaty ihned vysvléci.

Před přestávkami a po práci umýt ruce.

Ochranný oděv odděleně přechovávat.

Zamezit styku se zrakem.

Zamezit styku s pokožkou a zrakem.

· **Ochrana dýchacích orgánů:**

Při krátkodobém nebo nízkém zatížení použít dýchací přístroj s filtrem, při intenzivním nebo delším zatížení se musí použít dýchací přístroj nezávislý na okolním vzduchu.

· **Ochrana rukou:**



Ochranné rukavice

Materiál rukavic musí být nepropustný a odolný proti produktu / látce / směsi.

Vzhledem k tomu, že chybí testy, není možné doporučit materiál rukavic pro produkt / přípravek / chemickou směs.

Výběr materiálu rukavic proveďte podle času průniku, permeability a degradace.

· **Materiál rukavic**

Správný výběr rukavic nezávisí jen na materiálu, ale také na dalších kritériích, která se liší podle výrobce.

· **Doba průniku materiálem rukavic**

Je nutno u výrobce rukavic zjistit a dodržovat přesné časy průniku materiálem ochranných rukavic.

(pokračování na straně 5)

Bezpečnostní list

podle 1907/2006/ES, Článek 31

Datum vydání: 30.10.2018

Revize: 30.10.2018

Obchodní označení: **PROPYLENE OXIDE, ACS REAGENT**· **Ochrana očí:**

(pokračování strany 4)



Uzavřené ochranné brýle

ODDÍL 9: Fyzikální a chemické vlastnosti

· 9.1 Informace o základních fyzikálních a chemických vlastnostech

· Všeobecné údaje

· Vzhled:

Skupenství: Tekutina

Barva: Bezbarvá

· Zápach: Charakteristický

· Prahová hodnota zápachu: *Není určeno.*· Hodnota pH: *Není určeno.*

· Změna stavu

Bod tání/bod tuhnutí: -111,9 °C

Počáteční bod varu a rozmezí bodu varu: 34,3 °C

· Bod vzplanutí: -37 °C

· Hořlavost (pevné látky, plyny): *Nedá se použít.*

· Zápalná teplota: 430 °C

· Teplota rozkladu: *Není určeno.*· Teplota samovznícení: *Není určeno.*

· Výbušné vlastnosti: *I když produktu nehrozí nebezpečí exploze, je přesto možné nebezpečí exploze ve směsi par se vzduchem.*

· Meze výbušnosti:

Dolní mez: 1,9 Vol %

Horní mez: 15 Vol %

· Tlak páry při 20 °C: 590 hPa

· Hustota při 20 °C: 0,8313 g/cm³· Relativní hustota: *Není určeno.*· Hustota páry: *Není určeno.*· Rychlost odpařování: *Není určeno.*

· Rozpuštnost ve / směsitelnost s vodě při 20 °C: 405 g/l

· Rozdělovací koeficient: n-oktanol/voda: *Není určeno.*

· Viskozita:

Dynamicky: *Není určeno.*Kinematicky: *Není určeno.*

· Obsah ředidel:

VOC (EC) 0,00 %

Obsah netěkavých složek: 0,0 %

(pokračování na straně 6)

Bezpečnostní list

podle 1907/2006/ES, Článek 31

Datum vydání: 30.10.2018

Revize: 30.10.2018

Obchodní označení: PROPYLENE OXIDE, ACS REAGENT

(pokračování strany 5)

· 9.2 Další informace

Další relevantní informace nejsou k dispozici.

ODDÍL 10: Stálost a reaktivita

- 10.1 Reaktivita Další relevantní informace nejsou k dispozici.
- 10.2 Chemická stabilita
- Termický rozklad / Podmínky, kterých je nutno se vyvarovat:
Nedochází k rozkladu při doporučeném způsobu použití.
- 10.3 Možnost nebezpečných reakcí Žádné nebezpečné reakce nejsou známy.
- 10.4 Podmínky, kterým je třeba zabránit Další relevantní informace nejsou k dispozici.
- 10.5 Neslučitelné materiály: Další relevantní informace nejsou k dispozici.
- 10.6 Nebezpečné produkty rozkladu: Nejsou známy žádné nebezpečné produkty při rozkladu.

ODDÍL 11: Toxikologické informace

- 11.1 Informace o toxikologických účincích
 - Akutní toxicita
Zdraví škodlivý při požití.
Toxický při styku s kůží a při vdechování.
- | | | |
|---|------|----------------------|
| · Zařazení relevantní hodnoty LD/LC 50: | | |
| 75-56-9 propylenoxid | | |
| Orálně | LD50 | 380 mg/kg (rat) |
| Pokožkou | LD50 | 1.245 mg/kg (rabbit) |
- Primární dráždivé účinky:
 - Žíravost/dráždivost pro kůži Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
 - Vážné poškození očí / podráždění očí
Způsobuje vážné podráždění očí.
 - Senzibilizace dýchacích cest / senzibilizace kůže
Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
 - Účinky CMR (karcinogenita, mutagenita a toxicita pro reprodukci)
 - Mutagenita v zárodečných buňkách
Může vyvolat genetické poškození.
 - Karcinogenita
Může vyvolat rakovinu.
 - Toxicita pro reprodukci Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
 - Toxicita pro specifické cílové orgány – jednorázová expozice
Může způsobit podráždění dýchacích cest.
 - Toxicita pro specifické cílové orgány – opakovaná expozice
Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
 - Nebezpečnost při vdechnutí Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.

ODDÍL 12: Ekologické informace

- 12.1 Toxicita
- Aquatická toxicita: Další relevantní informace nejsou k dispozici.
- 12.2 Perzistence a rozložitelnost Další relevantní informace nejsou k dispozici.
- 12.3 Bioakumulační potenciál Další relevantní informace nejsou k dispozici.
- 12.4 Mobilita v půdě Další relevantní informace nejsou k dispozici.

(pokračování na straně 7)

CZ

Bezpečnostní list

podle 1907/2006/ES, Článek 31

Datum vydání: 30.10.2018

Revize: 30.10.2018

Obchodní označení: PROPYLENE OXIDE, ACS REAGENT


(pokračování strany 6)

- **Další ekologické údaje:**
- **Všeobecná upozornění:**
Třída ohrožení vody 3 (zařazení v listině): silně ohrožuje vodu
Nesmí vniknout do spodní vody, povodí nebo do kanalizace, ani v malých množstvích.
Ohrožuje pitnou vodu už při proniknutí nepatrného množství do zeminy.
- **12.5 Výsledky posouzení PBT a vPvB**
- **PBT:** Nedá se použít.
- **vPvB:** Nedá se použít.
- **12.6 Jiné nepříznivé účinky** Další relevantní informace nejsou k dispozici.

ODDÍL 13: Pokyny pro odstraňování

- **13.1 Metody nakládání s odpady**
- **Doporučení:** Nesmí se odstraňovat společně s odpady z domácnosti. Nepřipustit únik do kanalizace.
- **Kontaminované obaly:**
- **Doporučení:** Odstranění podle příslušných předpisů.
- **Doporučený čisticí prostředek:** Voda, případně s přísadami čisticích prostředků.

ODDÍL 14: Informace pro přepravu

- | | |
|--|---|
| <ul style="list-style-type: none"> · 14.1 UN číslo · ADR, IMDG, IATA | UN1280 |
| <ul style="list-style-type: none"> · 14.2 Oficiální (OSN) pojmenování pro přepravu · ADR · IMDG, IATA | 1280 PROPYLENOXID
PROPYLENE OXIDE |
| <ul style="list-style-type: none"> · 14.3 Třída/třídy nebezpečnosti pro přepravu · ADR, IMDG, IATA | 3 Hořlavé kapaliny
3 |
|  | |
| <ul style="list-style-type: none"> · třída · Etiketa | 3 Hořlavé kapaliny
3 |
| <ul style="list-style-type: none"> · 14.4 Obalová skupina · ADR, IMDG, IATA | I |
| <ul style="list-style-type: none"> · 14.5 Nebezpečnost pro životní prostředí: | Nedá se použít. |
| <ul style="list-style-type: none"> · 14.6 Zvláštní bezpečnostní opatření pro uživatele · Kemlerovo číslo: · EMS-skupina: · Stowage Category · Stowage Code | Varování: Hořlavé kapaliny
339
3-06
E
SW2 Clear of living quarters. |
| <ul style="list-style-type: none"> · 14.7 Hromadná přeprava podle přílohy II úmluvy MARPOL a předpisu IBC | Nedá se použít. |

(pokračování na straně 8)

Bezpečnostní list

podle 1907/2006/ES, Článek 31

Datum vydání: 30.10.2018

Revize: 30.10.2018

Obchodní označení: PROPYLENE OXIDE, ACS REAGENT

(pokračování strany 7)

· Přeprava/další údaje:
· ADR
· Omezené množství (LQ)

0

· Vyňatá množství (EQ)

Kód: E3

Nejvyšší čisté množství na vnitřní obal: 30 ml

Nejvyšší čisté množství na vnější obal: 300 ml

· Přepavní kategorie

1

· Kód omezení pro tunely:

D/E

· IMDG
· Limited quantities (LQ)

0

· Excepted quantities (EQ)

Code: E3

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 300 ml

· UN "Model Regulation":

UN 1280 PROPYLENOXID, 3, I

ODDÍL 15: Informace o předpisech

· **15.1 Předpisy týkající se bezpečnosti, zdraví a životního prostředí/specifické právní předpisy týkající se látky nebo směsi**

· **Rady 2012/18/EU**

· **Nebezpečné látky jmenovitě uvedené - PŘÍLOHA I** Látka neobsažena.

· **Kategorie Seveso**

P5a HOŘLAVÉ KAPALINY

H2 AKUTNÍ TOXICITA

· **Kvalifikační množství (v tunách) při uplatnění požadavků pro podlimitní množství 10 t**

· **Kvalifikační množství (v tunách) při uplatnění požadavků pro nadlimitní množství 50 t**

· **Rady (ES) č. 1907/2006 PŘÍLOHA XVII** Omezující podmínky: 3, 28, 29

· **Národní předpisy:**

· **Upozornění na omezení práce:**

Pracovníci nesmí přijít do styku s touto nebezpečnou látkou. V jednotlivých případech se mohou úřady povolit vyjímku.

· **Jiná ustanovení, omezení a zákazy**

· **Látky vzbuzující mimořádné obavy (SVHC) podle REACH, čl. 57**

75-56-9	propylenoxid
---------	--------------

· **15.2 Posouzení chemické bezpečnosti:** Posouzení chemické bezpečnosti nebylo provedeno.

ODDÍL 16: Další informace

Údaje se opírají o dnešní stav našich vědomostí, nepředstavují však záruku vlastností produktu a nevznikají tak žádné smluvní právní vztahy.

· **Zkratky a akronymy:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

(pokračování na straně 9)

Bezpečnostní list
podle 1907/2006/ES, Článek 31

Datum vydání: 30.10.2018

Revize: 30.10.2018

Obchodní označení: PROPYLENE OXIDE, ACS REAGENT*VOC: Volatile Organic Compounds (USA, EU)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**SVHC: Substances of Very High Concern**vPvB: very Persistent and very Bioaccumulative**Flam. Liq. 1: Hořlavé kapaliny – Kategorie 1**Acute Tox. 4: Akutní toxicita – Kategorie 4**Acute Tox. 3: Akutní toxicita – Kategorie 3**Eye Irrit. 2: Vážné poškození očí / podráždění očí – Kategorie 2**Muta. 1B: Mutagenita v zárodečných buňkách – Kategorie 1B**Carc. 1B: Karcinogenita – Kategorie 1B**STOT SE 3: Toxicita pro specifické cílové orgány (jednorázová expozice) – Kategorie 3*

(pokračování strany 8)

CZ

Sikkerhedsdatablad
ifølge 1907/2006/EF, Artikel 31

Trykdato: 30.10.2018

Revision: 30.10.2018

PUNKT 1: Identifikation af stoffet/blandingen og af selskabet/virksomheden

- **1.1 Produktidentifikator**
- **Handelsnavn: PROPYLENE OXIDE, ACS REAGENT**
- **Artikelnummer: 20401, 20411, 20412, 20414**
- **CAS-nummer:**
75-56-9
- **EC-nummer:**
200-879-2
- **Indeksnummer:**
603-055-00-4
- **1.2 Relevante identificerede anvendelser for stoffet eller blandingen samt anvendelser, der frarådes**
Der står ingen yderligere, relevante informationer til rådighed.
- **Stoffets/præparatets anvendelse** Laboratoriekemikalier
- **1.3 Nærmere oplysninger om leverandøren af sikkerhedsdatabladet**
- **Producent/leverandør**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **For yderligere information: Product safety department**
- **1.4 Nødtelefon:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

PUNKT 2: Fareidentifikation

- **2.1 Klassificering af stoffet eller blandingen**
- **Klassificering i henhold til forordning (EF) nr. 1272/2008**



GHS02 flamme

Flam. Liq. 1 H224 Yderst brandfarlig væske og damp.



GHS06 dødningshoved og korslagte knogler

Acute Tox. 3 H311 Giftig ved hudkontakt.

Acute Tox. 3 H331 Giftig ved indånding.



GHS08 sundhedsfarer

Muta. 1B H340 Kan forårsage genetiske defekter.

Carc. 1B H350 Kan fremkalde kræft.



GHS07

Acute Tox. 4 H302 Farlig ved indtagelse.

(Fortsættes på side 2)

Sikkerhedsdatablad

ifølge 1907/2006/EF, Artikel 31

Trykdato: 30.10.2018

Revision: 30.10.2018

Handelsnavn: PROPYLENE OXIDE, ACS REAGENT

(Fortsat fra side 1)

Eye Irrit. 2 H319 Forårsager alvorlig øjenirritation.
STOT SE 3 H335 Kan forårsage irritation af luftvejene.

2.2 Mærkningselementer

Mærkning i henhold til forordning (EF) nr. 1272/2008

Denne substans er klassificeret og mærket iht. CLP-forordningen.

Farepiktogrammer



GHS02 GHS06 GHS08

Signalord Fare

Farebestemmende komponent(er) til etikettering:

propylenoxid

Faresætninger

- H224 Yderst brandfarlig væske og damp.
- H302 Farlig ved indtagelse.
- H311+H331 Livsfarlig ved hudkontakt eller indånding.
- H319 Forårsager alvorlig øjenirritation.
- H340 Kan forårsage genetiske defekter.
- H350 Kan fremkalde kræft.
- H335 Kan forårsage irritation af luftvejene.

Sikkerhedssætninger

- P210 Holdes væk fra varme, varme overflader, gnister, åben ild og andre antændelseskilder. Rygning forbudt.
- P241 Anvend eksplosionssikkert elektrisk/ventilations-/lys-/udstyr.
- P303+P361+P353 VED KONTAKT MED HUDEN (eller håret): Alt tilsmudset tøj tages straks af. Skyl/brus huden med vand.
- P305+P351+P338 VED KONTAKT MED ØJNENE: Skyl forsigtigt med vand i flere minutter. Fjern eventuelle kontaktlinser, hvis dette kan gøres let. Fortsæt skylning.
- P405 Opbevares under lås.
- P501 Bortskaffelse af indholdet/beholderen i henhold til de lokale/regionale/nationale/internationale forskrifter.

2.3 Andre farer

Resultater af PBT- og vPvB-vurdering

- **PBT:** Ikke relevant.
- **vPvB:** Ikke relevant.

PUNKT 3: Sammensætning af/oplysning om indholdsstoffer

3.1 Kemisk betegnelse: Stoffer

CAS-nr. betegnelse

75-56-9 propylenoxid

Identifikationsnummer (-numre)

· **EC-nummer:** 200-879-2

· **Indeksnummer:** 603-055-00-4

SVHC

75-56-9 propylenoxid

DK

(Fortsættes på side 3)

Sikkerhedsdatablad

ifølge 1907/2006/EF, Artikel 31

Trykdato: 30.10.2018

Revision: 30.10.2018

Handelsnavn: PROPYLENE OXIDE, ACS REAGENT

(Fortsat fra side 2)

PUNKT 4: Førstehjælpsforanstaltninger

· 4.1 Beskrivelse af førstehjælpsforanstaltninger

· **Generelle anvisninger:**

Tøj, der er forurenet med produktet, skal tages af med det samme.

Forgiftningssymptomer kan optræde med mange timers forsinkelse, derfor skal lægeovervågningen vare mindst 48 timer efter et uheld.

Åndedrætsværnet må først tages af, efter at det forurenede tøj er blevet fjernet.

I tilfælde af uregelmæssigt åndedræt eller hvis åndedrættet ophører, skal der gives kunstigt åndedræt.

· **Efter indånding:**

Tilførsel af frisk luft eller ilt. Søg lægehjælp.

I tilfælde af bevidstløshed skal den tilskadekomne lægges ned og transporteres i stabilt sideleje.

· **Efter hudkontakt:** Skal omgående vaskes af med vand og sæbe, skyl godt efter.

· **Efter øjenkontakt:**

Skyl øjnene med åbent øjenlåg i flere minutter under rindende vand. Søg læge, hvis problemerne er vedvarende.

· **Efter indtagelse:** Søg læge.

· 4.2 Vigtigste symptomer og virkninger, både akutte og forsinkede

Der står ingen yderligere, relevante informationer til rådighed.

· 4.3 Angivelse af om øjeblikkelig lægehjælp og særlig behandling er nødvendig

Der står ingen yderligere, relevante informationer til rådighed.

PUNKT 5: Brandbekæmpelse

· 5.1 Slukningsmidler

· **Egnede slukningsmidler:**

CO₂, slukningspulver eller vandspraystråle. Større brande bekæmpes med vandspraystråle eller alkoholbestandigt skum.

· 5.2 Særlige farer i forbindelse med stoffet eller blandingen

Der står ingen yderligere, relevante informationer til rådighed.

· 5.3 Anvisninger for brandmandskab

· **Særlige værnemidler:** Bær åndedrætsværn.

PUNKT 6: Forholdsregler over for udslip ved uheld

· 6.1 Personlige sikkerhedsforanstaltninger, personlige værnemidler og nødprocedurer

Bær beskyttelsesudstyr. Hold ubeskyttede personer borte.

· 6.2 Miljøbeskyttelsesforanstaltninger:

Fortynd med rigeligt vand.

Må ikke udledes i kloaksystemet/overfladevand/grundvand.

· 6.3 Metoder og udstyr til inddæmning og oprensning:

Opsamles med væskebindende materiale (sand, kiselgur, syrebindemiddel, universalbindemiddel, savsmuld).

Kontamineret materiale skal bortskaffes som affald ifølge punkt 13.

Sørg for tilstrækkelig udluftning.

· 6.4 Henvielse til andre punkter

Information om sikker håndtering se kapitel 7.

Informationer vedrørende personlige værnemidler se kapitel 8.

Informationer om bortskaffelse se kapitel 13.

DK

(Fortsættes på side 4)

Sikkerhedsdatablad

ifølge 1907/2006/EF, Artikel 31

Trykdato: 30.10.2018

Revision: 30.10.2018

Handelsnavn: PROPYLENE OXIDE, ACS REAGENT

(Fortsat fra side 3)

PUNKT 7: Håndtering og opbevaring

· 7.1 Forholdsregler for sikker håndtering

Sørg for god udluftning/udsugning på arbejdspladsen.

Beholdere skal åbnes og håndteres med forsigtighed.

Undgå aerosoldannelse.

· Anvisninger vedrørende brand- og eksplosionsbeskyttelse:

Hold antændelige kilder borte – ingen rygning.

Beskyttes mod varme.

Træf forholdsregler mod elektrostatiske opladninger.

Hold åndedrætsværn i beredskab.

· 7.2 Betingelser for sikker opbevaring, herunder eventuel uforenelighed

· Opbevaring:

· **Krav til opbevaringsrum og beholdere:** Opbevares på et køligt sted.

· **Henvisninger vedrørende opbevaring med andre stoffer:** Ikke påkrævet.

· Yderligere oplysninger vedrørende opbevaringsbetingelserne:

Hold beholderen tætsluttende lukket.

Luk ikke beholderen gastæt.

Opbevares køligt og tørt i tætsluttende beholdere.

Beskyttes mod varme og direkte sollys.

· 7.3 Særlige anvendelser Der står ingen yderligere, relevante informationer til rådighed.

PUNKT 8: Eksponeringskontrol/personlige værnemidler

· **Yderligere anvisninger vedrørende udformning af tekniske anlæg:** Ingen yderligere oplysninger, se punkt 7.

· 8.1 Kontrolparametre

· **Indholdsstoffer med arbejdspladsrelaterede grænseværdier, der skal overvåges:**

75-56-9 propylenoxid

GV Langtidsværdi: 12 mg/m³, 5 ppm

HK

· **Yderligere anvisninger:** Baseret på de lister, der var gældende på tidspunktet for udarbejdelsen.

· 8.2 Eksponeringskontrol

· Personlige værnemidler:

· Generelle forholdsregler vedrørende beskyttelse og hygiejne:

Skal holdes borte fra føde- og drikkevarer og foderstoffer.

Forurennet, gennemvædet tøj skal det tages af med det samme.

Vask hænder inden der holdes pause og ved arbejdsophør.

Adskilt opbevaring af beskyttelsesklædning.

Undgå kontakt med øjnene.

Undgå kontakt med øjne og hud.

· Åndedrætsværn:

Ved kortvarig eller ringe belastning skal der benyttes åndedrætsværn med filter, ved intensiv eller længere eksponering skal der benyttes luftforsynet åndedrætsværn.

· Håndbeskyttelse:



Beskyttelseshandsker

Handskematerialet skal være uigennemtrængeligt og kunne tåle produktet/stoffet/præparatet.

(Fortsættes på side 5)

Sikkerhedsdatablad

ifølge 1907/2006/EF, Artikel 31

Trykdato: 30.10.2018

Revision: 30.10.2018

Handelsnavn: PROPYLENE OXIDE, ACS REAGENT

(Fortsat fra side 4)

På grund af manglende tests kan der ikke anbefales noget handskemateriale til produktet/præparatet/kemikalieblandingen.

Ved valg af handskematerialet skal der tages højde for gennemtrængningstider, permeabilitetstal og nedbrydning.

· **Handskemateriale:**

Valg af en egnet handske afhænger ikke blot af materialet, men også af yderligere kvalitetskriterier og er forskelligt fra den ene fabrikant til den anden.

· **Handskematerialets gennemtrængningstid**

Hos handskefabrikanten skal man forespørge om den nøjagtige gennemtrængningstid og overholde denne.

· **Øjenbeskyttelse:**



Tætsluttende beskyttelsesbriller

PUNKT 9: Fysiske og kemiske egenskaber

· **9.1 Oplysninger om grundlæggende fysiske og kemiske egenskaber**

· **Generelle oplysninger**

· **Udseende:**

· Form:	Væske
· Farve:	Farveløs
· Lugt:	Karakteristisk
· Lugttærskel:	Ikke bestemt.

· **pH-værdi:** Ikke bestemt.

· **Tilstandsændring**

· Smeltepunkt/frysepunkt:	-111,9 °C
· Begyndelseskogepunkt og kogepunktsinterval:	34,3 °C

· **Flammepunkt:** -37 °C

· **Antændelighed (fast stof, luftart):** Ikke relevant.

· **Antændelsepunkt:** 430 °C

· **Dekomponeringstemperatur:** Ikke bestemt.

· **Selvantændelsestemperatur:** Ikke bestemt.

· **Eksplorative egenskaber:** Produktet er ikke eksplosivt, der kan dog dannes eksplosive damp-/luftblandinger.

· **Eksplisionsgrænser:**

· Nedre:	1,9 Vol %
· Øvre:	15 Vol %

· **Damptryk ved 20 °C:** 590 hPa

· **Densitet ved 20 °C:** 0,8313 g/cm³

· **Relativ massefylde:** Ikke bestemt.

· **Dampmassefylde:** Ikke bestemt.

· **Fordampningshastighed** Ikke bestemt.

· **Opløselighed i/blandbarhed med vand ved 20 °C:** 405 g/l

· **Fordelingskoefficient: n-oktanol/vand:** Ikke bestemt.

(Fortsættes på side 6)

Sikkerhedsdatablad

ifølge 1907/2006/EF, Artikel 31

Trykdato: 30.10.2018

Revision: 30.10.2018

Handelsnavn: PROPYLENE OXIDE, ACS REAGENT

(Fortsat fra side 5)

· Viskositet:	
dynamisk:	Ikke bestemt.
kinematisk:	Ikke bestemt.
· Opløsningsmiddelindhold:	
VOC (EU)	0,00 %
· Tørstofindhold:	0,0 %
· 9.2 Andre oplysninger	Der står ingen yderligere, relevante informationer til rådighed.

PUNKT 10: Stabilitet og reaktivitet

- **10.1 Reaktivitet** Der står ingen yderligere, relevante informationer til rådighed.
- **10.2 Kemisk stabilitet**
- **Termisk nedbrydning/forhold, der bør undgås** Ingen nedbrydning ved formålsbestemt brug.
- **10.3 Risiko for farlige reaktioner** Der er ikke kendskab til nogen farlige reaktioner.
- **10.4 Forhold, der skal undgås** Der står ingen yderligere, relevante informationer til rådighed.
- **10.5 Materialer, der skal undgås:** Der står ingen yderligere, relevante informationer til rådighed.
- **10.6 Farlige nedbrydningsprodukter:** Der er ikke kendskab til nogen farlige nedbrydningsprodukter.

PUNKT 11: Toksikologiske oplysninger

- **11.1 Oplysninger om toksikologiske virkninger**

- **Akut toksicitet**

Farlig ved indtagelse.

Livsfarlig ved hudkontakt eller indånding.

- **Klassificeringsrelevante LD/LC50-værdier:**

75-56-9 propylenoxid

Oral	LD50	380 mg/kg (rat)
Dermal	LD50	1.245 mg/kg (rabbit)

- **Primær irritationsvirkning:**

- **Hudætsning/-irritation**

Kriterierne for klassificering kan på grundlag af de foreliggende data ikke anses for at være opfyldt.

- **Alvorlig øjenskade/øjenirritation**

Forårsager alvorlig øjenirritation.

- **Respiratorisk sensibilisering eller hudsensibilisering**

Kriterierne for klassificering kan på grundlag af de foreliggende data ikke anses for at være opfyldt.

- **CMR-virkninger (kræftfremkaldende egenskaber, mutagenicitet og reproduktionstoksicitet)**

- **Kimcellemutagenicitet**

Kan forårsage genetiske defekter.

- **Kræftfremkaldende egenskaber**

Kan fremkalde kræft.

- **Reproduktionstoksicitet**

Kriterierne for klassificering kan på grundlag af de foreliggende data ikke anses for at være opfyldt.

- **Enkel STOT-eksponering**

Kan forårsage irritation af luftvejene.

- **Gentagne STOT-eksponeringer**

Kriterierne for klassificering kan på grundlag af de foreliggende data ikke anses for at være opfyldt.

(Fortsættes på side 7)

Sikkerhedsdatablad

ifølge 1907/2006/EF, Artikel 31

Trykdato: 30.10.2018

Revision: 30.10.2018

Handelsnavn: PROPYLENE OXIDE, ACS REAGENT

(Fortsat fra side 6)

- **Aspirationsfare**
Kriterierne for klassificering kan på grundlag af de foreliggende data ikke anses for at være opfyldt.


PUNKT 12: Miljøoplysninger

- **12.1 Toksicitet**
- **Toksicitet i vand:** Der står ingen yderligere, relevante informationer til rådighed.
- **12.2 Persistens og nedbrydelighed** Der står ingen yderligere, relevante informationer til rådighed.
- **12.3 Bioakkumuleringspotentiale** Der står ingen yderligere, relevante informationer til rådighed.
- **12.4 Mobilitet i jord** Der står ingen yderligere, relevante informationer til rådighed.
- **Yderligere økologiske oplysninger:**
- **Generelle anvisninger:**
Fareklasse for vand 3 (klassificering ifølge listen): stærkt vandforurenende
Må ikke udledes i grundvandet, vandløb eller kloaksystemet, heller ikke i små mængder.
Risiko for forurening af drikkevandet allerede ved udslip af ganske små mængder i undergrunden.
- **12.5 Resultater af PBT- og vPvB-vurdering**
- **PBT:** Ikke relevant.
- **vPvB:** Ikke relevant.
- **12.6 Andre negative virkninger** Der står ingen yderligere, relevante informationer til rådighed.

PUNKT 13: Bortskaffelse

- **13.1 Metoder til affaldsbehandling**
- **Anbefaling:** Må ikke bortskaffes sammen med husholdningsaffald. Må ikke udledes i kloaksystemet.
- **Urensede emballager:**
- **Anbefaling:** Bortskaffes i overensstemmelse med myndighedernes forskrifter.
- **Anbefalet rengøringsmiddel:** Vand, eventuelt tilsat rengøringsmidler.

PUNKT 14: Transportoplysninger

- | | |
|---|---|
| · 14.1 UN-nummer | |
| · ADR, IMDG, IATA | UN1280 |
| · 14.2 UN-forsendelsesbetegnelse (UN proper shipping name) | |
| · ADR | 1280 PROPYLENOXID |
| · IMDG, IATA | PROPYLENE OXIDE |
| · 14.3 Transportfareklasse(r) | |
| · ADR, IMDG, IATA | |
| |  |
| · klasse | 3 Brandfarlige væsker |
| · Faremærkat | 3 |
| · 14.4 Emballagegruppe | |
| · ADR, IMDG, IATA | I |
| · 14.5 Miljøfarer: | Ikke relevant. |

(Fortsættes på side 8)

Sikkerhedsdatablad

ifølge 1907/2006/EF, Artikel 31

Trykdato: 30.10.2018

Revision: 30.10.2018

Handelsnavn: PROPYLENE OXIDE, ACS REAGENT

(Fortsat fra side 7)

· 14.6 Særlige forsigtighedsregler for brugeren	Advarsel: Brandfarlige væsker
· Kemler-tal:	339
· EMS-nummer:	3-06
· Stowage Category	E
· Stowage Code	SW2 Clear of living quarters.

· 14.7 Bulktransport i henhold til bilag II til MARPOL og IBC-koden	Ikke relevant.
--	----------------

· **Transport/yderligere oplysninger:**

· ADR	0
· Begrænsede mængder (LQ)	Kode: E3
· Undtagne mængder (EQ)	Største tilladte nettomængde pr. indvendig emballage: 30 ml
	Største tilladte nettomængde pr. ydre emballage: 300 ml
· Transportkategori	1
· Tunnelrestriktionskode	D/E

· IMDG	0
· Limited quantities (LQ)	Code: E3
· Excepted quantities (EQ)	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 300 ml

· UN "Model Regulation":	UN 1280 PROPYLENOXID, 3, I
---------------------------------	----------------------------

PUNKT 15: Oplysninger om regulering

· **15.1 Særlige bestemmelser/særlig lovgivning for stoffet eller blandingen med hensyn til sikkerhed, sundhed og miljø**

- **Direktiv 2012/18/EU**
- **Navngivne farlige stoffer - BILAG I** Stoffet er ikke optaget i listen.
- **Seveso-bestemmelser**
P5a BRANDFARLIGE VÆSKER
H2 AKUT TOKSISK
- **Tærskelmængde (tons) for anvendelse af Kolonne 2-krav 10 t**
- **Tærskelmængde (tons) for anvendelse af Kolonne 3-krav 50 t**
- **Forordning (EF) nr. 1907/2006 BILAG XVII** Begrænsninger: 3, 28, 29

· **Nationale forskrifter:**

· **Oplysninger vedrørende beskæftigelsesbegrænsning:**
Arbejdstagere må ikke udsættes for dette farestof. I enkelte tilfælde kan myndighederne bevillige undtagelser.

· **Øvrige forskrifter, restriktioner og forbudsforordninger**

· **Særligt problematiske stoffer (SVHC) ifølge REACH, artikel 57**

75-56-9	propylenoxid
---------	--------------

· **MAL-Code:** 5-6

· **15.2 Kemikaliesikkerhedsvurdering:** Der er ikke udført kemikaliesikkerhedsvurdering.

DK

(Fortsættes på side 9)

Sikkerhedsdatablad
ifølge 1907/2006/EF, Artikel 31

Trykdato: 30.10.2018

Revision: 30.10.2018

Handelsnavn: PROPYLENE OXIDE, ACS REAGENT

(Fortsat fra side 8)

PUNKT 16: Andre oplysninger

Alle ovenstående angivelser er baseret på vores aktuelle viden, udgør dog ikke nogen tilsikring af produktegenskaber og stifter heller ikke noget kontraktligt retsforhold.

Forkortelser og akronymer:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

Måleteknisk Arbejdshygiejnisk Luftbehov

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 1: Brandfarlige væsker – Kategori 1

Acute Tox. 4: Akut toksicitet – Kategori 4

Acute Tox. 3: Akut toksicitet – Kategori 3

Eye Irrit. 2: Alvorlige øjenskader/øjenirritation – Kategori 2

Muta. 1B: Kimcellemutagenicitet – Kategori 1B

Carc. 1B: Carcinogenicitet – Kategori 1B

STOT SE 3: Specifik målorgantoksicitet (enkelt eksponering) – Kategori 3

DK

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 30.10.2018

Herziening van: 30.10.2018

RUBRIEK 1: Identificatie van de stof of het mengsel en van de vennootschap/onderneming

· 1.1 Productidentificatie

· **Handelsnaam:** PROPYLENE OXIDE, ACS REAGENT

· **Artikelnummer:** 20401, 20411, 20412, 20414

· **CAS-nummer:**

75-56-9

· **EC-nummer:**

200-879-2

· **Catalogusnummer:**

603-055-00-4

· **1.2 Relevant geïdentificeerd gebruik van de stof of het mengsel en ontraden gebruik**

Geen verdere relevante informatie verkrijgbaar.

· **Toepassing van de stof / van de bereiding** Laboratoriumchemicaliën

· **1.3 Details betreffende de verstrekker van het veiligheidsinformatieblad**

· **Fabrikant/leverancier:**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

Tel: 215-412-8400 Fax: 215-412-8450

email: sgkcck@aol.com

www.emsdiasum.com

Aurion

Binnenhaven 5

6709 PD Wageningen

The Netherlands

Tel: 31 317 415094

Fax: 31 317 415955

email: info@aurion.nl

· **Inlichtingengevende sector:** Product safety department

· **1.4 Telefoonnummer voor noodgevallen:**

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

RUBRIEK 2: Identificatie van de gevaren

· **2.1 Indeling van de stof of het mengsel**

· **Indeling overeenkomstig Verordening (EG) nr. 1272/2008**



GHS02 vlam

Flam. Liq. 1 H224 Zeer licht ontvlambare vloeistof en damp.



GHS06 doodshoofd met gekruiste beenderen

Acute Tox. 3 H311 Giftig bij contact met de huid.

Acute Tox. 3 H331 Giftig bij inademing.



GHS08 gezondheidsgevaar

(Vervolg op blz. 2)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 30.10.2018

Herziening van: 30.10.2018

Handelsnaam: PROPYLENE OXIDE, ACS REAGENT

(Vervolg van blz. 1)

Muta. 1B H340 Kan genetische schade veroorzaken.

Carc. 1B H350 Kan kanker veroorzaken.



GHS07

Acute Tox. 4 H302 Schadelijk bij inslikken.

Eye Irrit. 2 H319 Veroorzaakt ernstige oogirritatie.

STOT SE 3 H335 Kan irritatie van de luchtwegen veroorzaken.

· 2.2 Etiketteringselementen

· Etikettering overeenkomstig Verordening (EG) nr. 1272/2008

De stof/product is geclassificeerd en geëtiketteerd volgens de CLP-verordening.

· Gevarenpictogrammen



GHS02

GHS06

GHS08

· Signaalwoord Gevaar

· Gevaaraanduidende componenten voor de etikettering:

propyleenoxide

· Gevarenaanduidingen

H224 Zeer licht ontvlambare vloeistof en damp.

H302 Schadelijk bij inslikken.

H311+H331 Giftig bij contact met de huid en bij inademing.

H319 Veroorzaakt ernstige oogirritatie.

H340 Kan genetische schade veroorzaken.

H350 Kan kanker veroorzaken.

H335 Kan irritatie van de luchtwegen veroorzaken.

· Veiligheidsaanbevelingen

P210 Verwijderd houden van warmte, hete oppervlakken, vonken, open vuur en andere ontstekingsbronnen. Niet roken.

P241 Explosieveilige elektrische/ventilatie-/verlichtings-apparatuur gebruiken.

P303+P361+P353 BIJ CONTACT MET DE HUID (of het haar): verontreinigde kleding onmiddellijk uittrekken. Huid met water afspoelen/afdouchen.

P305+P351+P338 BIJ CONTACT MET DE OGEN: voorzichtig afspoelen met water gedurende een aantal minuten; contactlenzen verwijderen, indien mogelijk; blijven spoelen.

P405 Achter slot bewaren.

P501 De inhoud en de verpakking verwerken volgens de plaatselijke/regionale/nationale/internationale voorschriften.

· 2.3 Andere gevaren

· Resultaten van PBT- en zPzB-beoordeling

· PBT: Niet bruikbaar.

· zPzB: Niet bruikbaar.

RUBRIEK 3: Samenstelling en informatie over de bestanddelen

· 3.1 Chemische karakterisering: Stoffen

· CAS-Nr. omschrijving

75-56-9 propyleenoxide

(Vervolg op blz. 3)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 30.10.2018

Herziening van: 30.10.2018

Handelsnaam: PROPYLENE OXIDE, ACS REAGENT

(Vervolg van blz. 2)

- **Identificatienummer(s)**
- **EC-nummer:** 200-879-2
- **Catalogusnummer:** 603-055-00-4

- **SVHC**

75-56-9	propyleenoxide
---------	----------------

RUBRIEK 4: Eerstehulpmaatregelen

- **4.1 Beschrijving van de eerstehulpmaatregelen**
- **Algemene informatie:**
Verontreinigde kleding onmiddellijk uittrekken.
Het is mogelijk dat vergiftigingssymptomen pas na vele uren optreden. Om deze reden is medische controle gedurende minstens 48 uur na een ongeval noodzakelijk.
Ademhalingstoestel pas afnemen nadat de verontreinigde kleding verwijderd is.
Bij onregelmatige ademhaling of ademstilstand kunstmatige ademhaling toepassen.
- **Na het inademen:**
Verse lucht of zuurstof toedienen; deskundige medische hulp invoeren.
Bij bewusteloosheid ligging en vervoer in stabiele zijligging.
- **Na huidcontact:** Onmiddellijk met water en zeep afwassen en goed naspoelen.
- **Na oogcontact:**
De ogen gedurende verscheidene minuten onder stromend water afspoelen terwijl de oogspleet geopend blijft. Bij aanhoudende klachten een dokter raadplegen.
- **Na inslikken:** Onmiddellijk arts raadplegen.
- **4.2 Belangrijkste acute en uitgestelde symptomen en effecten** Geen verdere relevante informatie verkrijgbaar.
- **4.3 Vermelding van de vereiste onmiddellijke medische verzorging en speciale behandeling**
Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 5: Brandbestrijdingsmaatregelen

- **5.1 Blusmiddelen**
- **Geschikte blusmiddelen:**
CO₂, bluspoeder of waterstraal. Grotere brand met waterstraal bestrijden of met schuim, dat tegen alcohol bestand is.
- **5.2 Speciale gevaren die door de stof of het mengsel worden veroorzaakt**
Geen verdere relevante informatie verkrijgbaar.
- **5.3 Advies voor brandweertieners**
- **Speciale beschermende kleding:** Ademhalingstoestel aantrekken.

RUBRIEK 6: Maatregelen bij het accidenteel vrijkomen van de stof of het mengsel

- **6.1 Persoonlijke voorzorgsmaatregelen, beschermde uitrusting en noodprocedures**
Beschermende kleding aantrekken. Niet beschermde personen op afstand houden.
- **6.2 Milieuvoorzorgsmaatregelen:**
Met veel water verdunnen.
Niet in de riolering/het oppervlaktewater/het grondwater laten terechtkomen.
- **6.3 Insluitings- en reinigingsmethoden en -materiaal:**
Met vloeistofbindend materiaal (zand, bergmeel, zuurbinder, universele binder, zaagmeel) opnemen.
Besmet materiaal zoals afval volgens punt 13 verwijderen.
Voor voldoende ventilatie zorgen.
- **6.4 Verwijzing naar andere rubrieken**
Informatie inzake veilig gebruik - zie hoofdstuk 7.

(Vervolg op blz. 4)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 30.10.2018

Herziening van: 30.10.2018

Handelsnaam: PROPYLENE OXIDE, ACS REAGENT

(Vervolg van blz. 3)

Informatie inzake persoonlijke beschermingsuitrusting - zie hoofdstuk 8.
Informatie inzake berging - zie hoofdstuk 13.

RUBRIEK 7: Hantering en opslag

- **7.1 Voorzorgsmaatregelen voor het veilig hanteren van de stof of het mengsel**
Voor goede ventilatie/afzuiging op de werkplaatsen zorgen.
Tanks voorzichtig openen en behandelen.
Aërosolvorming vermijden.
- **Informatie m.b.t. brand- en ontploffingsgevaar:**
Onststekingsbronnen op afstand houden - niet roken.
Beschermen tegen hitte.
Maatregelen treffen tegen ontlading van statische elektriciteit.
Ademhalingsstoestellen gereedhouden.
- **7.2 Voorwaarden voor een veilige opslag, met inbegrip van incompatibele producten**
- **Opslag:**
- **Eisen ten opzichte van opslagruimte en tanks:** Op een koele plaats bewaren.
- **Informatie m.b.t. gezamenlijke opslag:** Niet noodzakelijk.
- **Verdere inlichtingen over eisen m.b.t. de opslag:**
Tanks ondoordringbaar gesloten houden.
Tanks niet gasdicht afsluiten.
Koel en droog bewaren in goed gesloten vaten.
Tegen hitte en directe zonnestralen beschermen.
- **7.3 Specifiek eindgebruik** Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 8: Maatregelen ter beheersing van blootstelling/persoonlijke bescherming

- **Aanvullende gegevens m.b.t. de inrichting van technische installaties:** Geen aanvullende gegevens. Zie 7.

· 8.1 Controleparameters

- **Bestanddelen met grenswaarden die m.b.t. de werkruimte in acht genomen moeten worden:**

75-56-9 propyleenoxide

WGW | Lange termijn waarde: 6 mg/m³, 2,5 ppm

- **Aanvullende gegevens:** Als basis dienden lijsten die bij opstelling geldig waren.

· 8.2 Maatregelen ter beheersing van blootstelling

· **Persoonlijke beschermingsvoorzieningen:**

· **Algemene beschermings- en gezondheidsmaatregelen:**

Verwijderd houden van eet- en drinkwaren.
Verontreinigde kleding onmiddellijk uittrekken.
Vóór de pauze en aan het einde van werktijd handen wassen.
Beschermende kleding afzonderlijk bewaren.
Aanraking met de ogen vermijden.
Aanraking met de ogen en de huid vermijden.

· **Ademhalingsbescherming:**

Bij korte of geringe belasting ademfiltertoestel; bij intensieve resp. langdurige expositie een van de omringende lucht onafhankelijk ademhalingsstoestel gebruiken.

(Vervolg op blz. 5)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 30.10.2018

Herziening van: 30.10.2018

Handelsnaam: PROPYLENE OXIDE, ACS REAGENT

(Vervolg van blz. 4)

· **Handbescherming:**



Veiligheidshandschoenen

Het handschoenmateriaal moet ondoorlatend en bestand zijn tegen het product / de stof / de bereiding.
Op grond van falende testen kan geen aanbeveling voor handschoenmateriaal voor het product / de bereiding / het chemicaliënmengsel afgegeven worden.

Kies handschoenmateriaal rekening houdend met de penetratietijden, de permeatiegraden en de degradatie.

· **Handschoenmateriaal**

De keuze van een geschikte handschoen is niet alleen afhankelijk van het materiaal, maar ook van andere kwaliteitskenmerken en verschilt van fabrikant tot fabrikant.

· **Doordringingstijd van het handschoenmateriaal**

De precieze penetratietijd kunt u te weten komen bij de handschoenfabrikant; houd er rekening mee.

· **Oogbescherming:**



Nauw aansluitende veiligheidsbril

RUBRIEK 9: Fysische en chemische eigenschappen

· **9.1 Informatie over fysische en chemische basiseigenschappen**

· **Algemene gegevens**

· **Voorkomen:**

Vorm:	Vloeistof
Kleur:	Kleurloos
· Geur:	Karakteristiek
· Geurdrempelwaarde:	Niet bepaald.

· **pH-waarde:** Niet bepaald.

· **Toestandsverandering**

Smelt-/vriespunt:	-111,9 °C
Beginkookpunt en kooktraject:	34,3 °C

· **Vlampunt:** -37 °C

· **Ontvlambaarheid (vast, gas):** Niet bruikbaar.

· **Ontstekingstemperatuur:** 430 °C

· **Ontledingstemperatuur:** Niet bepaald.

· **Zelfontbrandingstemperatuur:** Niet bepaald.

· **Ontploffingseigenschappen:** Het produkt is niet ontploffingsgevaarlijk, maar de vorming van ontploffingsgevaarlijke damp-/luchtmengsels is mogelijk.

· **Ontploffingsgrenzen:**

Onderste:	1,9 Vol %
Bovenste:	15 Vol %

· **Dampspanning bij 20 °C:** 590 hPa

· **Dichtheid bij 20 °C:** 0,8313 g/cm³

· **Relatieve dichtheid** Niet bepaald.

(Vervolg op blz. 6)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 30.10.2018

Herziening van: 30.10.2018

Handelsnaam: PROPYLENE OXIDE, ACS REAGENT

(Vervolg van blz. 5)

· Dampdichtheid	Niet bepaald.
· Verdampingssnelheid	Niet bepaald.
· Oplosbaarheid in/mengbaarheid met Water bij 20 °C:	405 g/l
· Verdelingscoëfficiënt: n-octanol/water:	Niet bepaald.
· Viscositeit	
Dynamisch:	Niet bepaald.
Kinematisch:	Niet bepaald.
· Oplosmiddelgehalte:	
VOC (EG)	0,00 %
Gehalte aan vaste bestanddelen:	0,0 %
· 9.2 Overige informatie	Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 10: Stabiliteit en reactiviteit

- **10.1 Reactiviteit** Geen verdere relevante informatie verkrijgbaar.
- **10.2 Chemische stabiliteit**
- **Thermische afbraak / te vermijden omstandigheden:** Geen afbraak bij gebruik volgens voorschrift.
- **10.3 Mogelijke gevaarlijke reacties** Geen gevaarlijke reacties bekend.
- **10.4 Te vermijden omstandigheden** Geen verdere relevante informatie verkrijgbaar.
- **10.5 Chemisch op elkaar inwerkende materialen:** Geen verdere relevante informatie verkrijgbaar.
- **10.6 Gevaarlijke ontledingsproducten:** Geen gevaarlijke ontbindingsproducten bekend.

RUBRIEK 11: Toxicologische informatie

- **11.1 Informatie over toxicologische effecten**
- **Acute toxiciteit**
Schadelijk bij inslikken.
Giftig bij contact met de huid en bij inademing.

· Indelingsrelevantie LD/LC50-waarden:

75-56-9 propyleenoxide

Oraal	LD50	380 mg/kg (rat)
Dermaal	LD50	1.245 mg/kg (rabbiet)

- **Primaire aandoening:**
- **Huidcorrosie/-irritatie** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Ernstig oogletsel/oogirritatie**
Veroorzaakt ernstige oogirritatie.
- **Sensibilisatie van de luchtwegen/de huid**
Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **CMR-effecten (kankerverwekkendheid, mutageniteit en giftigheid voor de voortplanting)**
- **Mutageniteit in geslachtscellen**
Kan genetische schade veroorzaken.
- **Kankerverwekkendheid**
Kan kanker veroorzaken.
- **Giftigheid voor de voortplanting** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **STOT bij eenmalige blootstelling**
Kan irritatie van de luchtwegen veroorzaken.
- **STOT bij herhaalde blootstelling** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

(Vervolg op blz. 7)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 30.10.2018

Herziening van: 30.10.2018

Handelsnaam: PROPYLENE OXIDE, ACS REAGENT

(Vervolg van blz. 6)

· **Gevaar bij inademing** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.


RUBRIEK 12: Ecologische informatie

- **12.1 Toxiciteit**
- **Aquatische toxiciteit:** Geen verdere relevante informatie verkrijgbaar.
- **12.2 Persistentie en afbreekbaarheid** Geen verdere relevante informatie verkrijgbaar.
- **12.3 Bioaccumulatie** Geen verdere relevante informatie verkrijgbaar.
- **12.4 Mobiliteit in de bodem** Geen verdere relevante informatie verkrijgbaar.
- **Verdere ecologische informatie:**
- **Algemene informatie:**
Waterbezwaarlijkheid (NL): Z(1) niet afbreekbare stoffen met gevaarlijke eigenschappen voor mens en milieu (carcinogeniteit/mutageniteit/ reprotoxiciteit/bioaccumulerend vermogen/ toxiciteit of persistentie)
Gevaar voor water klasse 3 (D) (Lijstclassificatie): gevaar voor water groot
Niet lozen in grondwater, oppervlaktewater of riolering, ook niet in kleine hoeveelheden.
Gevaar voor drinkwater zelfs bij het uitlopen van zeer geringe hoeveelheden in de ondergrond.
- **12.5 Resultaten van PBT- en zPzB-beoordeling**
- **PBT:** Niet bruikbaar.
- **zPzB:** Niet bruikbaar.
- **12.6 Andere schadelijke effecten** Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 13: Instructies voor verwijdering

- **13.1 Afvalverwerkingsmethoden**
- **Aanbeveling:** Mag niet tesamen met huisvuil gestort worden of in de riolering terechtkomen.
- **Niet gereinigde verpakkingen:**
- **Aanbeveling:** Afvalverwijdering volgens overheidsbepalingen.
- **Aanbevolen reinigingsmiddel:** Water, eventueel met toevoeging van reinigingsmiddelen.

RUBRIEK 14: Informatie met betrekking tot het vervoer

- **14.1 VN-nummer**
- **ADR, IMDG, IATA** UN1280
- **14.2 Juiste ladingnaam overeenkomstig de modelreglementen van de VN**
- **ADR** 1280 PROPYLEENOXIDE
- **IMDG, IATA** PROPYLENE OXIDE
- **14.3 Transportgevarenklasse(n)**
- **ADR, IMDG, IATA**
- 
- **klasse** 3 Brandbare vloeistoffen
- **Etiket** 3
- **14.4 Verpakkingsgroep:**
- **ADR, IMDG, IATA** I

(Vervolg op blz. 8)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 30.10.2018

Herziening van: 30.10.2018

Handelsnaam: PROPYLENE OXIDE, ACS REAGENT

(Vervolg van blz. 7)

· 14.5 Milieugevaren:	Niet bruikbaar.
· 14.6 Bijzondere voorzorgen voor de gebruiker	Waarschuwing: Brandbare vloeistoffen
· Kemler-getal:	339
· EMS-nummer:	3-06
· Stowage Category	E
· Stowage Code	SW2 Clear of living quarters.
· 14.7 Vervoer in bulk overeenkomstig bijlage II bij Marpol en de IBC-code	Niet bruikbaar.
· Transport/verdere gegevens:	

· ADR	
· Beperkte hoeveelheden (LQ)	0
· Uitgezonderde hoeveelheden (EQ)	Code: E3 Grootste netto hoeveelheid per binnenverpakking: 30 ml Grootste netto hoeveelheid per buitenverpakking: 300 ml
· Vervoerscategorie	1
· Tunnelbeperkingscode	D/E

· IMDG	
· Limited quantities (LQ)	0
· Excepted quantities (EQ)	Code: E3 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 300 ml
· VN "Model Regulation":	UN 1280 PROPYLEENOXIDE, 3, I

RUBRIEK 15: Regelgeving

 · **15.1 Specifieke veiligheids-, gezondheids- en milieureglementen en -wetgeving voor de stof of het mengsel**

 · **SZW-lijst van kankerverwekkende stoffen**

De stof is aanwezig.

 · **SZW-lijst van mutagene stoffen**

De stof is aanwezig.

 · **NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Vruchtbaarheid**

De stof is niet aanwezig.

 · **NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Ontwikkeling**

De stof is niet aanwezig.

 · **NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Borstvoeding**

De stof is niet aanwezig.

 · **Richtlijn 2012/18/EU**

 · **Gevaarlijke stoffen die met naam genoemd worden - BIJLAGE I** De stof is niet aanwezig.

 · **Seveso-categorie**

P5a ONTVLAMBARE VLOEISTOFFEN

H2 ACUUT TOXISCH

 · **Drempelwaarde (ton) voor toepassing van voorschriften voor lagedrempelinrichtingen 10 t**

 · **Drempelwaarde (ton) voor toepassing van voorschriften voor hogedrempelinrichtingen 50 t**

 · **Verordening (EG) nr. 1907/2006 BIJLAGE XVII Beperkingsvoorwaarden: 3, 28, 29**

(Vervolg op blz. 9)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 30.10.2018

Herziening van: 30.10.2018

Handelsnaam: PROPYLENE OXIDE, ACS REAGENT

(Vervolg van blz. 8)

· **Nationale voorschriften:**

· **Aanwijzingen m.b.t. tewerkstellingsbeperking:**

Werknemers mogen aan deze gevaarlijke stof niet blootgesteld worden. In uitzonderingsgevallen kan de overheid speciale vergunningen afgeven.

· **Gevaarklasse v. water:**

Waterbezwaarlijkheid (NL): Z(1) niet afbreekbare stoffen met gevaarlijke eigenschappen voor mens en milieu (carcinogeniteit/mutageniteit/ reprotoxiciteit/bioaccumulerend vermogen/ toxiciteit of persistentie)

· **Aanvullende voorschriften, beperkingen en verbodsverordeningen**

· **Zeer zorgwekkende stoffen (SVHC) volgens REACH, artikel 57**

75-56-9 propyleenoxide

· **15.2 Chemischeveiligheidsbeoordeling:** Een chemische veiligheidsbeoordeling is niet uitgevoerd.

RUBRIEK 16: Overige informatie

Deze gegevens zijn gebaseerd op de huidige stand van onze kennis. Zij beschrijven echter geen garantie van produkteigenschappen en vestigen geen contractuele rechtsbetrekking.

· **Afkortingen en acroniemen:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 1: Ontvlambare vloeistoffen – Categorie 1

Acute Tox. 4: Acute toxiciteit – Categorie 4

Acute Tox. 3: Acute toxiciteit – Categorie 3

Eye Irrit. 2: Ernstig oogletsel/oogirritatie – Categorie 2

Muta. 1B: Mutageniteit in geslachtscellen – Categorie 1B

Carc. 1B: Kankerverwekkendheid – Categorie 1B

STOT SE 3: Specifieke doelorgaantoxiciteit bij eenmalige blootstelling – Categorie 3

Käyttöturvallisuustiedote

1907/2006/EY, 31 artikla mukainen

Painatuspäivämäärä 30.10.2018

Tarkistus: 30.10.2018

KOHTA 1: Aineen tai seoksen ja yhtiön tai yrityksen tunnistetiedot

- **1.1 Tuotetunniste**
- **Kauppanimike:** PROPYLENE OXIDE, ACS REAGENT
- **Artikkelinumero:** 20401, 20411, 20412, 20414
- **CAS-numero:**
75-56-9
- **EY-numero:**
200-879-2
- **Indeksinumero:**
603-055-00-4
- **1.2 Aineen tai seoksen merkitykselliset tunnistetut käytöt ja käytöt, joita ei suositella**
Merkittäviä lisätietoja ei ole saatavilla.
- **Aineen / valmisteiden käyttö** Laboratoriokemikaalit
- **1.3 Käyttöturvallisuustiedotteen toimittajan tiedot**
- **Valmistaja/toimittaja:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Tietoja antaa:** Product safety department
- **1.4 Häät puhelinnumero:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

KOHTA 2: Vaaran yksilöinti

- **2.1 Aineen tai seoksen luokitus**
- **Luokitus asetuksen (EY) N:o 1272/2008 mukaisesti**



GHS02 liekki

Flam. Liq. 1 H224 Erittäin helposti syttyvä neste ja höyry.



GHS06 pääkallo ja ristikkäiset luut

Acute Tox. 3 H311 Myrkyllistä joutuessaan iholle.

Acute Tox. 3 H331 Myrkyllistä hengitettynä.



GHS08 terveysvaara

Muta. 1B H340 Saattaa aiheuttaa perimävaurioita.

Carc. 1B H350 Saattaa aiheuttaa syöpää.



GHS07

Acute Tox. 4 H302 Haitallista nieltynä.

(jatkuu sivulla 2)

Käyttöturvallisuustiedote

1907/2006/EY, 31 artikla mukainen

Painatuspäivämäärä 30.10.2018

Tarkistus: 30.10.2018

Kauppanimike: PROPYLENE OXIDE, ACS REAGENT

(jatkuu sivulla 1)

Eye Irrit. 2 H319 Ärsyttää voimakkaasti silmiä.

STOT SE 3 H335 Saattaa aiheuttaa hengitysteiden ärsytystä.

· 2.2 Merkinnät

· **Merkinnät asetuksen (EY) N:o 1272/2008 mukaisesti** Aine on luokiteltu ja merkitty CLP-asetuksen mukaan.

· **Varoitusmerkit**



GHS02 GHS06 GHS08

· **Huomiosana** Vaara

· **Vaaran määräävät komponentit etiketeissä:**

Propyleenioksidi

· **Vaaralausekkeet**

H224 Erittäin helposti syttyvä neste ja höyry.

H302 Haitallista nieltynä.

H311+H331 Myrkyllistä joutuessaan iholle tai hengitettynä.

H319 Ärsyttää voimakkaasti silmiä.

H340 Saattaa aiheuttaa perimävaurioita.

H350 Saattaa aiheuttaa syöpää.

H335 Saattaa aiheuttaa hengitysteiden ärsytystä.

· **Turvausekkeet**

P210 Suojaa lämmöltä, kuumilta pinnoilta, kipinöiltä, avotulelta ja muilta sytytyslähteiltä. Tupakointi kielletty.

P241 Käytä räjähdysturvallisia sähkö/ilmanvaihto/valaisin/laitteita.

P303+P361+P353 JOS KEMIKAALIA JOUTUU IHOLLE (tai hiuksiin): Riisu saastunut vaatetus välittömästi. Huuhto/suihkuta iho vedellä.

P305+P351+P338 JOS KEMIKAALIA JOUTUU SILMIIN: Huuhdo huolellisesti vedellä usean minuutin ajan. Poista mahdolliset piilolinssit, jos sen voi tehdä helposti. Jatka huuhtomista.

P405 Varastoi lukitussa tilassa.

P501 Säilytä säiliö(t) noudattaen paikallisia/alueellisia/kansallisia/kansainvälisiä määräyksiä.

· **2.3 Muut vaarat**

· **PBT- ja vPvB-arvioinnin tulokset**

· **PBT:** Ei voida käyttää.

· **vPvB:** Ei voida käyttää.

KOHTA 3: Koostumus ja tiedot aineosista

· **3.1 Kemialliset ominaisuudet: Aineet**

· **CAS-nro. nimike**

75-56-9 Propyleenioksidi

· **Tunnistusnumero(t)**

· **EY-numero:** 200-879-2

· **Indeksinumero:** 603-055-00-4

· **SVHC**

75-56-9 Propyleenioksidi

FI

(jatkuu sivulla 3)

Käyttöturvallisuustiedote

1907/2006/EY, 31 artikla mukainen

Painatuspäivämäärä 30.10.2018

Tarkistus: 30.10.2018

Kauppanimike: PROPYLENE OXIDE, ACS REAGENT

(jatkuu sivulla 2)

KOHTA 4: Ensiaputoimenpiteet

· 4.1 Ensiaputoimenpiteiden kuvaus

· Yleisohjeet:

Aineen saastuttamat vaatekappaleet on riisuttava välittömästi.

Myrkytysoireet voivat ilmaantua vasta useiden tuntien kuluttua. Tästä syystä henkilöt on pidettävä lääkärin tarkkailun alaisena ainakin 48 tuntia onnettomuuden jälkeen.

Hengityssuojain saadaan poistaa vasta kun saastuneet vaatteet on riisuttu.

Annettava tekohengitystä hengityksen ollessa epätasainen tai pysähtynyt.

· Hengitettynä:

Huolehdittava raittiin ilman saannista tai annettava hapetta; pyydettyä lääkärin apua.

Tajuton pidettävä ja kuljetettava kyljellään.

· Ihokosketuksessa: Pestävä heti vedellä ja saippualla ja huuhdottava hyvin.

· Aineen päästyä silmiin:

Silmiä huuhdotaan luomet auki juoksevan veden alla useita minuutteja. Oireiden kestäessä käännetään lääkärin puoleen.

· Nieltyä: Saatettava lääkärin hoitoon.

· 4.2 Tärkeimmät oireet ja vaikutukset, sekä välittömät että viivästyneet Merkittävistä lisätietoja ei ole saatavilla.

· 4.3 Mahdollisesti tarvittavaa välitöntä lääketieteellistä apua ja erityishoitoa koskevat ohjeet

Merkittävistä lisätietoja ei ole saatavilla.

KOHTA 5: Palontorjuntatoimenpiteet

· 5.1 Sammutusaineet

· Sopivat sammutusaineet:

CO₂, kuivakemikaalisammutin tai vesisuihku. Suuremmat palot torjutaan vesisuihukilla tai alkoholeja kestäväällä vaahdolla.

· 5.2 Aineesta tai seoksesta johtuvat erityiset vaarat Merkittävistä lisätietoja ei ole saatavilla.

· 5.3 Palontorjuntaa koskevat ohjeet

· Erityinen suojavarustus: Käytettävä hengityssuojainta.

KOHTA 6: Toimenpiteet onnettomuuspäästöissä

· 6.1 Varotoimenpiteet, henkilönsuojaimet ja menettely hätätilanteessa

Käytettävä suojavarustusta. Suojautumattomat henkilöt pidettävä loitolla.

· 6.2 Ympäristöön kohdistuvat varotoimet:

Ohennettava runsaalla vedellä.

Estettävä pääsy viemäriin/pintavesiin/pohjaveteen.

· 6.3 Suojarakenteita ja puhdistusta koskevat menetelmät ja -välineet:

Imettävä nestettä sitovalla aineella (hiekkä, piimaa, hapon sidosaaine, yleisidosaine, sahajauho).

Saastunut aine on jätteenä hävitettävä kohdan 13 mukaisesti.

Huolehdittava riittävästä tuuleutuksesta.

· 6.4 Viittaukset muihin kohtiin

Turvallista käsittelyä koskevia ohjeita kappaleessa 7.

Henkilökohtaista suojavarustusta koskevia ohjeita kappaleessa 8.

Aineen hävitystä koskevia ohjeita kappaleessa 13.

KOHTA 7: Käsittely ja varastointi

· 7.1 Turvallisen käsittelyn edellyttämät toimenpiteet

Huolehdittava hyvästä tuuleutuksesta/imusta työpaikalla.

(jatkuu sivulla 4)

Käyttöturvallisuustiedote

1907/2006/EY, 31 artikla mukainen

Painatuspäivämäärä 30.10.2018

Tarkistus: 30.10.2018

Kauppanimike: PROPYLENE OXIDE, ACS REAGENT

(jatkuu sivulla 3)

Säiliöt avattava ja käsiteltävä varovasti.

Vältettävä aerosolin muodostusta.

· **Palo- ja räjähdysvaaroitukset:**

Eristettävä sytytysläheteistä - tupakanpolto kielletty.

Suoritettava toimenpiteet sähköstaattista latausta vastaan.

Vältettävä iskuja ja hankautumista.

Pidettävä hengityssuojain käyttövalmiina.

· **7.2 Turvallisen varastoinnin edellyttämät olosuhteet, mukaan luettuina yhteensopimattomuudet**

· **Varastointi:**

· **Varastotiloille ja säiliöille asetettavat vaatimukset:** Säilytettävä viileässä paikassa.

· **Yhteisvarastointiohjeet:** Ei tarvita.

· **Lisätietoja varastointiehtoihin:**

Astiat on pidettävä tiiviisti suljettuina.

Astioita ei saa sulkea kaasutiiviisti.

Varastoitava hyvin suljetuissa astioissa viileässä ja kuivassa paikassa.

Suojattava kuumuudelta ja välittömältä auringonpaisteelta.

· **7.3 Erityinen loppukäyttö** Merkittäviä lisätietoja ei ole saatavilla.

KOHTA 8: Altistumisen ehkäiseminen ja henkilönsuojaimet

· **Lisäohjeita teknisten laitteiden varustukseen:** Ei muita tietoja, ks. kohta 7.

· **8.1 Valvontaa koskevat muuttujat**

· **Aineosat työpaikkakohtaisin valvottavin raja-arvoin:**

75-56-9 Propyleenioksidi

HTP	Pitkäaikaisarvo: 2,4 mg/m ³ , 1 ppm iho
-----	---

· **Lisäohjeet:** Tiedot perustuvat valmistushetkellä voimassaoleviin luetteloihin.

· **8.2 Altistumisen ehkäiseminen**

· **Henkilökohtainen suojavarustus:**

· **Yleiset suoja- ja hygieniatoimenpiteet:**

Pidettävä loitolla elintarvikkeista, juomista ja rehuista.

Likaantuneet, aineen saastuttamat vaatekappaleet on riisuttava välittömästi.

Kädet on pestävä ennen taukoja ja työn päätyttyä.

Suojavaatetus on säilytettävä erikseen.

Vältettävä kosketusta silmiin.

Vältettävä ihokosketusta ja kosketusta silmiin.

· **Hengityssuoja:**

Lyhytaikaisessa tai vähäisessä altistuksessa hengityssuojasuodin; intensiivisessä tai pitkäaikaisessa rasituksessa ulkoilmasta riippumaton hengityssuojain.

· **Käsisuojus:**



Suojakäsineet

Käsin materiaalin tulee olla tuotetta/ainetta/valmistetta kestävä ja läpäisemätöntä.

Puuttuvien testien vuoksi suositusta soveltuvasta suojakäsine materiaalista tuotteelle/ valmisteelle / kemikaalikohteelle ei voida antaa.

Suojakäsine materiaalin valinnassa on otettava huomioon läpäisyajat, läpäisevyyskerroin ja kuluminen.

(jatkuu sivulla 5)

Käyttöturvallisuustiedote

1907/2006/EY, 31 artikla mukainen

Painatuspäivämäärä 30.10.2018

Tarkistus: 30.10.2018

Kauppanimike: PROPYLENE OXIDE, ACS REAGENT

(jatkuu sivulla 4)

· Käsinemateriaali

Soveltuvan käsinetyypin valikoima ei riipu yksinomaan materiaalista vaan myös muista laatuominaisuuksista ja vaihtelee eri valmistajilla.

· Käsinemateriaalin läpäisy aika

Tarkka läpäisy aika on selvitettävä suojakäsinevalmistajalta ja sitä on noudatettava.

· Silmäsuojus:


Tiiviit suojalasit

KOHTA 9: Fysikaaliset ja kemialliset ominaisuudet

· 9.1 Fysikaalisia ja kemiallisia perusominaisuuksia koskevat tiedot
· Yleiset ohjeet
· Olomuoto:

Muoto: Neste

Väri: Väritön

· Haju: Tyypillinen

· Hajukynnys: Ei määritetty.

· pH-arvo: Ei määritetty.

· Tilanmuutos

Sulamis- tai jäätymispiste: -111,9 °C

Kiehumispiste ja kiehumisalue: 34,3 °C

· Leimahduspiste: -37 °C

· Syttyvyys (kiinteät aineet, kaasut): Ei voida käyttää.

· Syttymislämpötila: 430 °C

· Hajoamislämpötila: Ei määritetty.

· Itsesyttymislämpötila: Ei määritetty.

· Räjähätvyys: Tuote ei ole räjähdysvaarallinen, kuitenkin räjähdysvaarallisten höyry-/ilmaseosten muodostuminen mahdollista.

· Räjähdyksrajat:

Alempi: 1,9 Vol %

Ylempi: 15 Vol %

· Höyrypaine 20 °C lämpötilassa: 590 hPa

· Tiheys 20 °C lämpötilassa: 0,8313 g/cm³

· Suhteellinen tiheys: Ei määritetty.

· Höyryntiheys: Ei määritetty.

· Haihtumisnopeus: Ei määritetty.

· Liukenevuus/sekoittuvuus

veteen 20 °C lämpötilassa: 405 g/l

· Jakautumiskerroin: n-oktanolivesi: Ei määritetty.

· Viskositeetti:

Dynaaminen: Ei määritetty.

(jatkuu sivulla 6)

Käyttöturvallisuustiedote

1907/2006/EY, 31 artikla mukainen

Painatuspäivämäärä 30.10.2018

Tarkistus: 30.10.2018

Kauppanimike: PROPYLENE OXIDE, ACS REAGENT

(jatkuu sivulla 5)

Kinemaattinen:	Ei määrätty.
· Liuotainepitoisuus: VOC (EY)	0,00 %
Kiinnainepitoisuus:	0,0 %
· 9.2 Muut tiedot	Merkittäviä lisätietoja ei ole saatavilla.

KOHTA 10: Stabiilisuus ja reaktiivisuus

- **10.1 Reaktiivisuus** Merkittäviä lisätietoja ei ole saatavilla.
- **10.2 Kemiallinen stabiilisuus**
- **Terminen hajoavuus / vältettävät olosuhteet:** Ei hajaantumista määräystenmukaisessa käytössä.
- **10.3 Vaarallisten reaktioiden mahdollisuus** Ei tiedossa vaarallisia reaktioita.
- **10.4 Vältettävät olosuhteet** Merkittäviä lisätietoja ei ole saatavilla.
- **10.5 Yhteensopimattomat materiaalit:** Merkittäviä lisätietoja ei ole saatavilla.
- **10.6 Vaaralliset hajoamistuotteet:** Tiedossa ei ole vaarallisia hajoamistuotteita.

KOHTA 11: Myrkyllisyyteen liittyvät tiedot

- **11.1 Tiedot myrkyllisistä vaikutuksista**
- **Välitön myrkyllisyys**
Haitallista nieltynä.
Myrkyllistä joutuessaan iholle tai hengitettynä.

· Luokittelurelevantti LD/LC50-arvot:		
75-56-9 Propyleenioksidi		
Oraali	LD50	380 mg/kg (rat)
Dermaali	LD50	1.245 mg/kg (rabbit)

- **Ensisijainen ärsyttävä vaikutus:**
- **Ihosyövyttävyyksihoärsytys** Saatavilla olevien tietojen perusteella luokituskriteerit eivät täyty.
- **Vakava silmävaurio/silmä-ärsytys**
Ärsyttää voimakkaasti silmiä.
- **Hengitysteiden tai ihon herkistyminen** Saatavilla olevien tietojen perusteella luokituskriteerit eivät täyty.
- **CMR-vaikutukset eli syöpää aiheuttavat, perimää vaurioittavat ja lisääntymiselle vaaralliset vaikutukset**
- **Sukusolujen perimää vaurioittavat vaikutukset**
Saattaa aiheuttaa perimävaurioita.
- **Syöpää aiheuttavat vaikutukset**
Saattaa aiheuttaa syöpää.
- **Lisääntymiselle vaaralliset vaikutukset** Saatavilla olevien tietojen perusteella luokituskriteerit eivät täyty.
- **Elinkohtainen myrkyllisyys – kerta-altistuminen**
Saattaa aiheuttaa hengitysteiden ärsytystä.
- **Elinkohtainen myrkyllisyys – toistuva altistuminen**
Saatavilla olevien tietojen perusteella luokituskriteerit eivät täyty.
- **Aspiraatiovaara** Saatavilla olevien tietojen perusteella luokituskriteerit eivät täyty.

KOHTA 12: Tiedot vaarallisuudesta ympäristölle

- **12.1 Myrkyllisyys**
- **Vesimyrkyllisyys:** Merkittäviä lisätietoja ei ole saatavilla.
- **12.2 Pysyvyys ja hajoavuus** Merkittäviä lisätietoja ei ole saatavilla.

(jatkuu sivulla 7)

Käyttöturvallisuustiedote

1907/2006/EY, 31 artikla mukainen

Painatuspäivämäärä 30.10.2018

Tarkistus: 30.10.2018

Kauppanimike: PROPYLENE OXIDE, ACS REAGENT


(jatkuu sivulla 6)

- **12.3 Biokertyvyys** Merkittäviä lisätietoja ei ole saatavilla.
- **12.4 Liikkuvuus maaperässä** Merkittäviä lisätietoja ei ole saatavilla.
- **Ekologisia lisätietoja:**
- **Yleisohjeita:**
Vesistövaarallisuusluokka 3 (listaluokitus): voimakkaasti vesistöä vaarantava
Estetään pääsy pohjaveteen, vesistöihin, viemäristöön; myöskin pieninä määrinä.
Juomavesi vaaraantuu jo pieninten määrien päästessä maaperään.
- **12.5 PBT- ja vPvB-arvioinnin tulokset**
- **PBT:** Ei voida käyttää.
- **vPvB:** Ei voida käyttää.
- **12.6 Muut haitalliset vaikutukset** Merkittäviä lisätietoja ei ole saatavilla.

KOHTA 13: Jätteiden käsittelyyn liittyvät näkökohdat

- **13.1 Jätteiden käsittelymenetelmät**
- **Suositus:** Ei voida hävittää yhdessä talousjätteiden kanssa. Ei saa päästää viemäristöön.
- **Puhdistamattomat pakkaukset:**
- **Suositus:** Hävitettävä virallisten määräysten mukaisesti.
- **Suosittelava puhdistusaine:** Vesi, johon tarvittaessa lisätään puhdistusaineita.

KOHTA 14: Kuljetustiedot

- | | |
|---|--|
| · 14.1 YK-numero
· ADR, IMDG, IATA | UN1280 |
| · 14.2 Kuljetuksessa käytettävä virallinen nimi
· ADR
· IMDG, IATA | 1280 PROPYLEENIOKSIDI
PROPYLENE OXIDE |
| · 14.3 Kuljetuksen vaaraluokka
· ADR, IMDG, IATA | |
|  | |
| · luokka
· Lipuke | 3 Palavat nesteet
3 |
| · 14.4 Pakkausryhmä
· ADR, IMDG, IATA | I |
| · 14.5 Ympäristövaarat: | Ei voida käyttää. |
| · 14.6 Erityiset varotoimet käyttäjälle
· Kemler-luku:
· EMS-numero:
· Stowage Category
· Stowage Code | Varoitus: Palavat nesteet
339
3-06
E
SW2 Clear of living quarters. |
| · 14.7 Kuljetus irtolastina Marpol-sopimuksen II liitteen ja IBC-säännösten mukaisesti | Ei voida käyttää. |

(jatkuu sivulla 8)

Käyttöturvallisuustiedote

1907/2006/EY, 31 artikla mukainen

Painatuspäivämäärä 30.10.2018

Tarkistus: 30.10.2018

Kauppanimike: PROPYLENE OXIDE, ACS REAGENT

(jatkuu sivulla 7)

· Kuljetus/lisätietoja:
· ADR
· Rajoitetut määrät (LQ)

0

· Poikkeusmäärät (EQ)

Koodi: E3

Enimmäisnettomäärä sisäpakkausta kohti: 30 ml

Enimmäisnettomäärä ulkopakkausta kohti: 300 ml

· Kuljetuskategoria

1

· Tunnelirajoituskoodi:

D/E

· IMDG
· Limited quantities (LQ)

0

· Excepted quantities (EQ)

Code: E3

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 300 ml

· UN "Model Regulation":

UN 1280 PROPYLEENIOKSIDI, 3, I

KOHTA 15: Lainsäädäntöä koskevat tiedot

· 15.1 Nimenomaisesti ainetta tai seosta koskevat turvallisuus-, terveyst- ja ympäristösäännökset tai -lainsäädäntö
· Direktiivi 2012/18/EU
· Nimetyt vaaralliset aineet - LIITE I Aine ei sisälly

· Seveso-luokka

P5a SYTTYVÄT NESTEET

H2 VÄLITÖN MYRKYLLISYYS

· Soveltamisen vähimmäismäärät (tonneina) alemman tason vaatimukset 10 t
· Soveltamisen vähimmäismäärät (tonneina) ylemmän tason vaatimukset 50 t
· NEUVOSTON ASETUS (EY) N:o 1907/2006 LIITE XVII Rajoitusehdot: 3, 28, 29

· Kansalliset määräykset:
· Työskenteleyä rajoittavat huomautukset:

Työntekijöitä ei saa altistaa tälle vaaralliselle aineelle. Virastot voivat erikoistapauksessa antaa poikkeusluvan.

· Muut määräykset, rajoitukset ja kiellot
· Erityistä huolta aiheuttavat aineet (SVHC) mukainen REACH, 57 artiklan

75-56-9 Propyleenioksidi

· 15.2 Kemikaaliturvallisuusarviointi: Kemikaaliturvallisuusarviointia ei ole tehty.

KOHTA 16: Muut tiedot

Annetut tiedot perustuvat tähänhetkisiin tietoihimme. Ne eivät kuitenkaan anna takuuta tuotteen ominaisuuksista eivätkä aikaansaa sopimuksellista oikeussuhdetta.

· Lyhenteet ja lyhennykset:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

(jatkuu sivulla 9)

Käyttöturvallisuustiedote
1907/2006/EY, 31 artikla mukainen

Painatuspäivämäärä 30.10.2018

Tarkistus: 30.10.2018

Kauppanimike: PROPYLENE OXIDE, ACS REAGENT

(jatkuu sivulla 8)

*PBT: Persistent, Bioaccumulative and Toxic**SVHC: Substances of Very High Concern**vPvB: very Persistent and very Bioaccumulative**Flam. Liq. 1: Syttyvät nesteet – Katgoria 1**Acute Tox. 4: Välitön myrkyllisyys – Katgoria 4**Acute Tox. 3: Välitön myrkyllisyys – Katgoria 3**Eye Irrit. 2: Vakava silmävaurio/silmä-ärsytys – Katgoria 2**Muta. 1B: Sukusolujen perimää vaurioittavat vaikutukset – Katgoria 1B**Carc. 1B: Syöpää aiheuttavat vaikutukset – Katgoria 1B**STOT SE 3: Elinkohtainen myrkyllisyys (kerta-altistuminen) – Katgoria 3*

-FI-

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 30.10.2018

Révision: 30.10.2018

RUBRIQUE 1: Identification de la substance/du mélange et de la société/l'entreprise

· 1.1 Identificateur de produit

· **Nom du produit:** PROPYLENE OXIDE, ACS REAGENT

· **Code du produit:** 20401, 20411, 20412, 20414

· **No CAS:**
75-56-9

· **Numéro CE:**
200-879-2

· **Numéro index:**
603-055-00-4

· 1.2 Utilisations identifiées pertinentes de la substance ou du mélange et utilisations déconseillées

Pas d'autres informations importantes disponibles.

· **Emploi de la substance / de la préparation** Produits chimiques pour laboratoires

· 1.3 Renseignements concernant le fournisseur de la fiche de données de sécurité

· **Producteur/fournisseur:**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

Tel: 215-412-8400 Fax: 215-412-8450

email: sgkcck@aol.com

www.emsdiasum.com

· **Service chargé des renseignements:** Product safety department

· 1.4 Numéro d'appel d'urgence:

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

RUBRIQUE 2: Identification des dangers

· 2.1 Classification de la substance ou du mélange

· **Classification selon le règlement (CE) n° 1272/2008**



GHS02 flamme

Flam. Liq. 1 H224 Liquide et vapeurs extrêmement inflammables.



GHS06 tête de mort sur deux tibias

Acute Tox. 3 H311 Toxique par contact cutané.

Acute Tox. 3 H331 Toxique par inhalation.



GHS08 danger pour la santé

Muta. 1B H340 Peut induire des anomalies génétiques.

Carc. 1B H350 Peut provoquer le cancer.



GHS07

Acute Tox. 4 H302 Nocif en cas d'ingestion.

(suite page 2)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 30.10.2018

Révision: 30.10.2018

Nom du produit: PROPYLENE OXIDE, ACS REAGENT

(suite de la page 1)

Eye Irrit. 2 H319 Provoque une sévère irritation des yeux.

STOT SE 3 H335 Peut irriter les voies respiratoires.

· 2.2 Éléments d'étiquetage

· **Étiquetage selon le règlement (CE) n° 1272/2008** La substance est classifiée et étiquetée selon le règlement CLP.

· Pictogrammes de danger



GHS02 GHS06 GHS08

· Mention d'avertissement Danger

· Composants dangereux déterminants pour l'étiquetage:

oxyde de propylène

· Mentions de danger

H224 Liquide et vapeurs extrêmement inflammables.

H302 Nocif en cas d'ingestion.

H311+H331 Toxique par contact cutané ou par inhalation.

H319 Provoque une sévère irritation des yeux.

H340 Peut induire des anomalies génétiques.

H350 Peut provoquer le cancer.

H335 Peut irriter les voies respiratoires.

· Conseils de prudence

P210 Tenir à l'écart de la chaleur, des surfaces chaudes, des étincelles, des flammes nues et de toute autre source d'inflammation. Ne pas fumer.

P241 Utiliser du matériel électrique/de ventilation/d'éclairage antidéflagrant.

P303+P361+P353 EN CAS DE CONTACT AVEC LA PEAU (ou les cheveux): Enlever immédiatement tous les vêtements contaminés. Rincer la peau à l'eau/Se doucher.

P305+P351+P338 EN CAS DE CONTACT AVEC LES YEUX: rincer avec précaution à l'eau pendant plusieurs minutes. Enlever les lentilles de contact si la victime en porte et si elles peuvent être facilement enlevées. Continuer à rincer.

P405 Garder sous clef.

P501 Éliminer le contenu/récipient conformément à la réglementation locale/régionale/nationale/internationale.

· 2.3 Autres dangers

· Résultats des évaluations PBT et vPvB

· **PBT:** Non applicable.

· **vPvB:** Non applicable.

RUBRIQUE 3: Composition/informations sur les composants

· 3.1 Caractérisation chimique: Substances

· No CAS Désignation

75-56-9 oxyde de propylène

· Code(s) d'identification

· Numéro CE: 200-879-2

· Numéro index: 603-055-00-4

· SVHC

75-56-9	oxyde de propylène
---------	--------------------

FR

(suite page 3)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 30.10.2018

Révision: 30.10.2018

Nom du produit: PROPYLENE OXIDE, ACS REAGENT

(suite de la page 2)

RUBRIQUE 4: Premiers secours

· **4.1 Description des premiers secours**

· **Remarques générales:**

Enlever immédiatement les vêtements contaminés par le produit.

Les symptômes d'intoxication peuvent apparaître après de nombreuses heures seulement; une surveillance médicale est donc nécessaire au moins 48 heures après un accident.

Ne retirer la protection respiratoire qu'après avoir retiré les vêtements contaminés.

Respiration artificielle dans le cas d'une respiration irrégulière ou d'un arrêt respiratoire.

· **Après inhalation:**

Donner de l'air frais ou de l'oxygène; demander d'urgence une assistance médicale.

En cas d'inconscience, coucher et transporter la personne en position latérale stable.

· **Après contact avec la peau:** Laver immédiatement à l'eau et au savon et bien rincer.

· **Après contact avec les yeux:**

Rincer les yeux, pendant plusieurs minutes, sous l'eau courante en écartant bien les paupières. Si les troubles persistent, consulter un médecin.

· **Après ingestion:** Consulter immédiatement un médecin.

· **4.2 Principaux symptômes et effets, aigus et différés** Pas d'autres informations importantes disponibles.

· **4.3 Indication des éventuels soins médicaux immédiats et traitements particuliers nécessaires**

Pas d'autres informations importantes disponibles.

RUBRIQUE 5: Mesures de lutte contre l'incendie

· **5.1 Moyens d'extinction**

· **Moyens d'extinction:**

CO₂, poudre d'extinction ou eau pulvérisée. Combattre les foyers importants avec de l'eau pulvérisée ou de la mousse résistant à l'alcool.

· **5.2 Dangers particuliers résultant de la substance ou du mélange**

Pas d'autres informations importantes disponibles.

· **5.3 Conseils aux pompiers**

· **Équipement spécial de sécurité:** Porter un appareil de protection respiratoire.

RUBRIQUE 6: Mesures à prendre en cas de dispersion accidentelle

· **6.1 Précautions individuelles, équipement de protection et procédures d'urgence**

Porter un équipement de sécurité. Eloigner les personnes non protégées.

· **6.2 Précautions pour la protection de l'environnement:**

Diluer avec beaucoup d'eau.

Ne pas rejeter dans les canalisations, dans les eaux de surface et dans les nappes d'eau souterraines.

· **6.3 Méthodes et matériel de confinement et de nettoyage:**

Recueillir les liquides à l'aide d'un produit absorbant (sable, kieselguhr, neutralisant d'acide, liant universel, sciure).

Évacuer les matériaux contaminés en tant que déchets conformément au point 13.

Assurer une aération suffisante.

· **6.4 Référence à d'autres rubriques**

Afin d'obtenir des informations pour une manipulation sûre, consulter le chapitre 7.

Afin d'obtenir des informations sur les équipements de protection personnels, consulter le chapitre 8.

Afin d'obtenir des informations sur l'élimination, consulter le chapitre 13.

FR

(suite page 4)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 30.10.2018

Révision: 30.10.2018

Nom du produit: PROPYLENE OXIDE, ACS REAGENT

(suite de la page 3)

RUBRIQUE 7: Manipulation et stockage

- **7.1 Précautions à prendre pour une manipulation sans danger**
Veiller à une bonne ventilation/aspiration du poste de travail.
Ouvrir et manipuler les récipients avec précaution.
Eviter la formation d'aérosols.
- **Préventions des incendies et des explosions:**
Tenir à l'abri des sources d'inflammation - ne pas fumer.
Tenir à l'abri de la chaleur.
Prendre des mesures contre les charges électrostatiques.
Tenir des appareils de protection respiratoire prêts.
- **7.2 Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités**
- **Stockage:**
- **Exigences concernant les lieux et conteneurs de stockage:** Stocker dans un endroit frais.
- **Indications concernant le stockage commun:** Pas nécessaire.
- **Autres indications sur les conditions de stockage:**
Tenir les emballages hermétiquement fermés.
Ne pas fermer les emballages de telle sorte qu'ils soient hermétiques aux gaz.
Stocker au frais et au sec dans des fûts bien fermés.
Protéger de la forte chaleur et du rayonnement direct du soleil.
- **7.3 Utilisation(s) finale(s) particulière(s)** Pas d'autres informations importantes disponibles.

RUBRIQUE 8: Contrôles de l'exposition/protection individuelle

- **Indications complémentaires pour l'agencement des installations techniques:**
Sans autre indication, voir point 7.

- **8.1 Paramètres de contrôle**

- **Composants présentant des valeurs-seuil à surveiller par poste de travail:**

75-56-9 oxyde de propylène

VME	Valeur à long terme: 50 mg/m ³ , 20 ppm C1B, M1B
-----	--

- **Remarques supplémentaires:**
Le présent document s'appuie sur les listes en vigueur au moment de son élaboration.
- **8.2 Contrôles de l'exposition**
- **Equipement de protection individuel:**
- **Mesures générales de protection et d'hygiène:**
Tenir à l'écart des produits alimentaires, des boissons et de la nourriture pour animaux.
Retirer immédiatement les vêtements souillés ou humectés.
Se laver les mains avant les pauses et en fin de travail.
Conservé à part les vêtements de protection.
Eviter tout contact avec les yeux.
Eviter tout contact avec les yeux et avec la peau.
- **Protection respiratoire:**
En cas d'exposition faible ou de courte durée, utiliser un filtre respiratoire; en cas d'exposition intense ou durable, utiliser un appareil de respiration indépendant de l'air ambiant.
- **Protection des mains:**



Gants de protection

(suite page 5)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 30.10.2018

Révision: 30.10.2018

Nom du produit: PROPYLENE OXIDE, ACS REAGENT

(suite de la page 4)

Le matériau des gants doit être imperméable et résistant au produit / à la substance / à la préparation.
À cause du manque de tests, aucune recommandation pour un matériau de gants pour le produit / la préparation / le mélange de produits chimiques ne peut être donnée.

Choix du matériau des gants en fonction des temps de pénétration, du taux de perméabilité et de la dégradation.

· **Matériau des gants**

Le choix de gants appropriés ne dépend pas seulement du matériau, mais également d'autres critères de qualité qui peuvent varier d'un fabricant à l'autre.

· **Temps de pénétration du matériau des gants**

Le temps de pénétration exact est à déterminer par le fabricant des gants de protection et à respecter.

· **Protection des yeux:**



Lunettes de protection hermétiques

RUBRIQUE 9: Propriétés physiques et chimiques

· **9.1 Informations sur les propriétés physiques et chimiques essentielles**

· **Indications générales**

· **Aspect:**

Forme:	Liquide
Couleur:	Incolore
Odeur:	Caractéristique
Seuil olfactif:	Non déterminé.

· **valeur du pH:** Non déterminé.

· **Changement d'état**

Point de fusion/point de congélation:	-111,9 °C
Point initial d'ébullition et intervalle d'ébullition:	34,3 °C

· **Point d'éclair** -37 °C

· **Inflammabilité (solide, gaz):** Non applicable.

· **Température d'inflammation:** 430 °C

· **Température de décomposition:** Non déterminé.

· **Température d'auto-inflammabilité:** Non déterminé.

· **Propriétés explosives:** Le produit n'est pas explosif; toutefois, des mélanges explosifs vapeur-air peuvent se former.

· **Limites d'explosion:**

Inférieure:	1,9 Vol %
Supérieure:	15 Vol %

· **Pression de vapeur à 20 °C:** 590 hPa

· **Densité à 20 °C:** 0,8313 g/cm³

· **Densité relative** Non déterminé.

· **Densité de vapeur:** Non déterminé.

· **Taux d'évaporation:** Non déterminé.

· **Solubilité dans/miscibilité avec l'eau à 20 °C:** 405 g/l

(suite page 6)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 30.10.2018

Révision: 30.10.2018

Nom du produit: PROPYLENE OXIDE, ACS REAGENT

(suite de la page 5)

· Coefficient de partage: n-octanol/eau:	Non déterminé.
· Viscosité:	
Dynamique:	Non déterminé.
Cinématique:	Non déterminé.
· Teneur en solvants:	
VOC (CE)	0,00 %
· Teneur en substances solides:	0,0 %
· 9.2 Autres informations	Pas d'autres informations importantes disponibles.

RUBRIQUE 10: Stabilité et réactivité

- **10.1 Réactivité** Pas d'autres informations importantes disponibles.
- **10.2 Stabilité chimique**
- **Décomposition thermique/conditions à éviter:** Pas de décomposition en cas d'usage conforme.
- **10.3 Possibilité de réactions dangereuses** Aucune réaction dangereuse connue.
- **10.4 Conditions à éviter** Pas d'autres informations importantes disponibles.
- **10.5 Matières incompatibles:** Pas d'autres informations importantes disponibles.
- **10.6 Produits de décomposition dangereux:** Pas de produits de décomposition dangereux connus

RUBRIQUE 11: Informations toxicologiques

- **11.1 Informations sur les effets toxicologiques**
 - **Toxicité aiguë**
Nocif en cas d'ingestion.
Toxique par contact cutané ou par inhalation.
- | | | |
|--|-------------|---------------------|
| · Valeurs LD/LC50 déterminantes pour la classification: | | |
| 75-56-9 oxyde de propylène | | |
| Oral | LD50 | 380 mg/kg (rat) |
| Dermique | LD50 | 1.245 mg/kg (lapin) |
- **Effet primaire d'irritation:**
 - **Corrosion cutanée/irritation cutanée**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
 - **Lésions oculaires graves/irritation oculaire**
Provoque une sévère irritation des yeux.
 - **Sensibilisation respiratoire ou cutanée**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
 - **Effets CMR (cancérogène, mutagène et toxique pour la reproduction)**
 - **Mutagénicité sur les cellules germinales**
Peut induire des anomalies génétiques.
 - **Cancérogénicité**
Peut provoquer le cancer.
 - **Toxicité pour la reproduction**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
 - **Toxicité spécifique pour certains organes cibles - exposition unique**
Peut irriter les voies respiratoires.
 - **Toxicité spécifique pour certains organes cibles - exposition répétée**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.

(suite page 7)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 30.10.2018

Révision: 30.10.2018

Nom du produit: PROPYLENE OXIDE, ACS REAGENT

(suite de la page 6)

· **Danger par aspiration** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.


RUBRIQUE 12: Informations écologiques

- **12.1 Toxicité**
- **Toxicité aquatique:** Pas d'autres informations importantes disponibles.
- **12.2 Persistance et dégradabilité** Pas d'autres informations importantes disponibles.
- **12.3 Potentiel de bioaccumulation** Pas d'autres informations importantes disponibles.
- **12.4 Mobilité dans le sol** Pas d'autres informations importantes disponibles.
- **Autres indications écologiques:**
- **Indications générales:**
 Catégorie de pollution des eaux 3 (D) (classification selon liste): très polluant
 Ne pas laisser pénétrer dans la nappe phréatique, les eaux ou les canalisations, même pas en petite quantité.
 Danger pour l'eau potable dès fuite d'une quantité minime dans le sous-sol.
- **12.5 Résultats des évaluations PBT et VPVB**
- **PBT:** Non applicable.
- **vPvB:** Non applicable.
- **12.6 Autres effets néfastes** Pas d'autres informations importantes disponibles.

RUBRIQUE 13: Considérations relatives à l'élimination

- **13.1 Méthodes de traitement des déchets**
- **Recommandation:** Ne doit pas être évacué avec les ordures ménagères. Ne pas laisser pénétrer dans les égouts.
- **Emballages non nettoyés:**
- **Recommandation:** Evacuation conformément aux prescriptions légales.
- **Produit de nettoyage recommandé:** Eau, éventuellement avec des produits de nettoyage

RUBRIQUE 14: Informations relatives au transport

- | | |
|---|---|
| <ul style="list-style-type: none"> · 14.1 Numéro ONU · ADR, IMDG, IATA | UN1280 |
| <ul style="list-style-type: none"> · 14.2 Désignation officielle de transport de l'ONU · ADR · IMDG, IATA | 1280 OXYDE DE PROPYLÈNE
PROPYLENE OXIDE |
| <ul style="list-style-type: none"> · 14.3 Classe(s) de danger pour le transport · ADR, IMDG, IATA |  |
| <ul style="list-style-type: none"> · Classe · Étiquette | 3 Liquides inflammables.
3 |
| <ul style="list-style-type: none"> · 14.4 Groupe d'emballage · ADR, IMDG, IATA | I |
| <ul style="list-style-type: none"> · 14.5 Dangers pour l'environnement: | Non applicable. |

(suite page 8)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 30.10.2018

Révision: 30.10.2018

Nom du produit: PROPYLENE OXIDE, ACS REAGENT

(suite de la page 7)

<ul style="list-style-type: none"> · 14.6 Précautions particulières à prendre par l'utilisateur Attention: Liquides inflammables. · Indice Kemler: 339 · No EMS: 3-06 · Stowage Category E · Stowage Code SW2 Clear of living quarters.
<ul style="list-style-type: none"> · 14.7 Transport en vrac conformément à l'annexe II de la convention Marpol et au recueil IBC Non applicable.
<ul style="list-style-type: none"> · Indications complémentaires de transport:
<ul style="list-style-type: none"> · ADR · Quantités limitées (LQ) 0 · Quantités exceptées (EQ) Code: E3 Quantité maximale nette par emballage intérieur: 30 ml Quantité maximale nette par emballage extérieur: 300 ml · Catégorie de transport 1 · Code de restriction en tunnels D/E
<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) 0 · Excepted quantities (EQ) Code: E3 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 300 ml
<ul style="list-style-type: none"> · "Règlement type" de l'ONU: UN 1280 OXYDE DE PROPYLÈNE, 3, I

RUBRIQUE 15: Informations relatives à la réglementation

- **15.1 Réglementations/législation particulières à la substance ou au mélange en matière de sécurité, de santé et d'environnement**
 - **Directive 2012/18/UE**
 - **Substances dangereuses désignées - ANNEXE I** la substance n'est pas comprise
 - **Catégorie SEVESO**
P5a LIQUIDES INFLAMMABLES
H2 TOXICITÉ AIGUË
 - **Quantité seuil (tonnes) pour l'application des exigences relatives au seuil bas 10 t**
 - **Quantité seuil (tonnes) pour l'application des exigences relatives au seuil haut 50 t**
 - **RÈGLEMENT (CE) N° 1907/2006 ANNEXE XVII** Conditions de limitation: 3, 28, 29
 - **Prescriptions nationales:**
 - **Indications sur les restrictions de travail:**
Le personnel ne doit pas être exposé à cette substance dangereuse. Les autorités peuvent autoriser des exceptions dans des cas particuliers.
 - **Autres prescriptions, restrictions et règlements d'interdiction**
 - **Substances extrêmement préoccupantes (SVHC) selon REACH, article 57**
- | | |
|---------|--------------------|
| 75-56-9 | oxyde de propylène |
|---------|--------------------|

- **15.2 Évaluation de la sécurité chimique:** Une évaluation de la sécurité chimique n'a pas été réalisée.

FR

(suite page 9)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 30.10.2018

Révision: 30.10.2018

Nom du produit: PROPYLENE OXIDE, ACS REAGENT

(suite de la page 8)

RUBRIQUE 16: Autres informations

Ces indications sont fondées sur l'état actuel de nos connaissances, mais ne constituent pas une garantie quant aux propriétés du produit et ne donnent pas lieu à un rapport juridique contractuel.

· **Acronymes et abréviations:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 1: Liquides inflammables – Catégorie 1

Acute Tox. 4: Toxicité aiguë – Catégorie 4

Acute Tox. 3: Toxicité aiguë – Catégorie 3

Eye Irrit. 2: Lésions oculaires graves/irritation oculaire – Catégorie 2

Muta. 1B: Mutagénicité sur les cellules germinales – Catégorie 1B

Carc. 1B: Cancérogénicité – Catégorie 1B

STOT SE 3: Toxicité spécifique pour certains organes cibles (exposition unique) – Catégorie 3

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 30.10.2018

überarbeitet am: 30.10.2018

ABSCHNITT 1: Bezeichnung des Stoffs beziehungsweise des Gemischs und des Unternehmens

· **1.1 Produktidentifikator**

· **Handelsname:** **PROPYLENE OXIDE, ACS REAGENT**

· **Artikelnummer:** 20401, 20411, 20412, 20414

· **CAS-Nummer:**

75-56-9

· **EG-Nummer:**

200-879-2

· **Indexnummer:**

603-055-00-4

· **1.2 Relevante identifizierte Verwendungen des Stoffs oder Gemischs und Verwendungen, von denen abgeraten wird**

Keine weiteren relevanten Informationen verfügbar.

· **Verwendung des Stoffes / des Gemisches** Laborchemikalien

· **1.3 Einzelheiten zum Lieferanten, der das Sicherheitsdatenblatt bereitstellt**

· **Hersteller/Lieferant:**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

Tel: 215-412-8400 Fax: 215-412-8450

email: sgkcck@aol.com

www.emsdiasum.com

Science Services GmbH

Unterhachinger Str. 75

81737 München Germany

Tel: +49(0)89 18 93 668-0

safety@scienceservices.de

Deutschland: +49 (0)89 19240, 24h Giftnotruf Munchen, www.toxinfo.org

Osterreich: +43 1406 43 43, Gesundheit Osterreich GmbH, 24 h

· **Auskunftgebender Bereich:** Product safety department

· **1.4 Notrufnummer:**

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

ABSCHNITT 2: Mögliche Gefahren

· **2.1 Einstufung des Stoffs oder Gemischs**

· **Einstufung gemäß Verordnung (EG) Nr. 1272/2008**



GHS02 Flamme

Flam. Liq. 1 H224 Flüssigkeit und Dampf extrem entzündbar.



GHS06 Totenkopf mit gekreuzten Knochen

Acute Tox. 3 H311 Giftig bei Hautkontakt.

Acute Tox. 3 H331 Giftig bei Einatmen.

(Fortsetzung auf Seite 2)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 30.10.2018

überarbeitet am: 30.10.2018

Handelsname: PROPYLENE OXIDE, ACS REAGENT

(Fortsetzung von Seite 1)



GHS08 Gesundheitsgefahr

Muta. 1B H340 Kann genetische Defekte verursachen.

Carc. 1B H350 Kann Krebs erzeugen.



GHS07

Acute Tox. 4 H302 Gesundheitsschädlich bei Verschlucken.

Eye Irrit. 2 H319 Verursacht schwere Augenreizung.

STOT SE 3 H335 Kann die Atemwege reizen.

· 2.2 Kennzeichnungselemente

· Kennzeichnung gemäß Verordnung (EG) Nr. 1272/2008

Der Stoff ist gemäß CLP-Verordnung eingestuft und gekennzeichnet.

· Gefahrenpiktogramme



GHS02



GHS06



GHS08

· Signalwort Gefahr

· Gefahrbestimmende Komponenten zur Etikettierung:

Propylenoxid

· Gefahrenhinweise

H224 Flüssigkeit und Dampf extrem entzündbar.

H302 Gesundheitsschädlich bei Verschlucken.

H311+H331 Giftig bei Hautkontakt oder Einatmen.

H319 Verursacht schwere Augenreizung.

H340 Kann genetische Defekte verursachen.

H350 Kann Krebs erzeugen.

H335 Kann die Atemwege reizen.

· Sicherheitshinweise

P210 Von Hitze, heißen Oberflächen, Funken, offenen Flammen und anderen Zündquellen fernhalten. Nicht rauchen.

P241 Explosionsgeschützte elektrische Geräte/Lüftungsanlagen/Beleuchtungsanlagen verwenden.

P303+P361+P353 BEI BERÜHRUNG MIT DER HAUT (oder dem Haar): Alle kontaminierten Kleidungsstücke sofort ausziehen. Haut mit Wasser abwaschen/duschen.

P305+P351+P338 BEI KONTAKT MIT DEN AUGEN: Einige Minuten lang behutsam mit Wasser spülen. Eventuell vorhandene Kontaktlinsen nach Möglichkeit entfernen. Weiter spülen.

P405 Unter Verschluss aufbewahren.

P501 Entsorgung des Inhalts / des Behälters gemäß den örtlichen / regionalen / nationalen / internationalen Vorschriften.

· Zusätzliche Angaben:

Nur für gewerbliche Anwender.

· 2.3 Sonstige Gefahren

· Ergebnisse der PBT- und vPvB-Beurteilung

· PBT: Nicht anwendbar.

(Fortsetzung auf Seite 3)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 30.10.2018

überarbeitet am: 30.10.2018

Handelsname: PROPYLENE OXIDE, ACS REAGENT

(Fortsetzung von Seite 2)

· **vPvB:** Nicht anwendbar.

ABSCHNITT 3: Zusammensetzung/Angaben zu Bestandteilen

- **3.1 Chemische Charakterisierung: Stoffe**
- **CAS-Nr. Bezeichnung**
75-56-9 Propylenoxid
- **Identifikationsnummer(n)**
- **EG-Nummer:** 200-879-2
- **Indexnummer:** 603-055-00-4

· **SVHC**

75-56-9	Propylenoxid
---------	--------------

ABSCHNITT 4: Erste-Hilfe-Maßnahmen

- **4.1 Beschreibung der Erste-Hilfe-Maßnahmen**
- **Allgemeine Hinweise:**
Mit Produkt verunreinigte Kleidungsstücke unverzüglich entfernen.
Vergiftungssymptome können erst nach vielen Stunden auftreten, deshalb ärztliche Überwachung mindestens 48 Stunden nach einem Unfall.
Atemschutz erst nach Entfernen verunreinigter Kleidungsstücke abnehmen.
Bei unregelmäßiger Atmung oder Atemstillstand künstliche Beatmung.
- **Nach Einatmen:**
Frischluft- oder Sauerstoffzufuhr; ärztliche Hilfe in Anspruch nehmen.
Bei Bewusstlosigkeit Lagerung und Transport in stabiler Seitenlage.
- **Nach Hautkontakt:** Sofort mit Wasser und Seife abwaschen und gut nachspülen.
- **Nach Augenkontakt:**
Augen mehrere Minuten bei geöffnetem Lidspalt unter fließendem Wasser spülen. Bei anhaltenden Beschwerden Arzt konsultieren.
- **Nach Verschlucken:** Sofort Arzt aufsuchen.
- **4.2 Wichtigste akute und verzögert auftretende Symptome und Wirkungen**
Keine weiteren relevanten Informationen verfügbar.
- **4.3 Hinweise auf ärztliche Soforthilfe oder Spezialbehandlung**
Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 5: Maßnahmen zur Brandbekämpfung

- **5.1 Löschmittel**
- **Geeignete Löschmittel:**
CO₂, Löschpulver oder Wassersprühstrahl. Größeren Brand mit Wassersprühstrahl oder alkoholbeständigem Schaum bekämpfen.
- **5.2 Besondere vom Stoff oder Gemisch ausgehende Gefahren**
Keine weiteren relevanten Informationen verfügbar.
- **5.3 Hinweise für die Brandbekämpfung**
- **Besondere Schutzausrüstung:** Atemschutzgerät anlegen.

ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung

- **6.1 Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren**
Schutzausrüstung tragen. Ungeschützte Personen fernhalten.

(Fortsetzung auf Seite 4)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 30.10.2018

überarbeitet am: 30.10.2018

Handelsname: PROPYLENE OXIDE, ACS REAGENT

(Fortsetzung von Seite 3)

- **6.2 Umweltschutzmaßnahmen:**
Mit viel Wasser verdünnen.
Nicht in die Kanalisation/Oberflächenwasser/Grundwasser gelangen lassen.
- **6.3 Methoden und Material für Rückhaltung und Reinigung:**
Mit flüssigkeitsbindendem Material (Sand, Kieselgur, Säurebinder, Universalbinder, Sägemehl) aufnehmen.
Kontaminiertes Material als Abfall nach Abschnitt 13 entsorgen.
Für ausreichende Lüftung sorgen.
- **6.4 Verweis auf andere Abschnitte**
Informationen zur sicheren Handhabung siehe Abschnitt 7.
Informationen zur persönlichen Schutzausrüstung siehe Abschnitt 8.
Informationen zur Entsorgung siehe Abschnitt 13.

ABSCHNITT 7: Handhabung und Lagerung

- **7.1 Schutzmaßnahmen zur sicheren Handhabung**
Für gute Belüftung/Absaugung am Arbeitsplatz sorgen.
Behälter mit Vorsicht öffnen und handhaben.
Aerosolbildung vermeiden.
- **Hinweise zum Brand- und Explosionsschutz:**
Zündquellen fernhalten - nicht rauchen.
Vor Hitze schützen.
Maßnahmen gegen elektrostatische Aufladung treffen.
Atemschutzgeräte bereithalten.
- **7.2 Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten**
- **Lagerung:**
- **Anforderung an Lagerräume und Behälter:** An einem kühlen Ort lagern.
- **Zusammenlagerungshinweise:** Nicht erforderlich.
- **Weitere Angaben zu den Lagerbedingungen:**
Behälter dicht geschlossen halten.
Behälter nicht gasdicht verschließen.
In gut verschlossenen Gebinden kühl und trocken lagern.
Vor Hitze und direkter Sonnenbestrahlung schützen.
- **Lagerklasse:**
- **Klassifizierung nach Betriebssicherheitsverordnung (BetrSichV):** Entzündbare Flüssigkeiten
- **7.3 Spezifische Endanwendungen** Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 8: Begrenzung und Überwachung der Exposition/Persönliche Schutzausrüstungen

- **Zusätzliche Hinweise zur Gestaltung technischer Anlagen:** Keine weiteren Angaben, siehe Abschnitt 7.
- **8.1 Zu überwachende Parameter**

· **Bestandteile mit arbeitsplatzbezogenen, zu überwachenden Grenzwerten:**

75-56-9 Propylenoxid

AGW	Langzeitwert: 2,4 mg/m ³ , 1 ml/m ³ 4 (I);AGS, EU, Sh, X, Y, 28
-----	--

(Fortsetzung auf Seite 5)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 30.10.2018

überarbeitet am: 30.10.2018

Handelsname: PROPYLENE OXIDE, ACS REAGENT

(Fortsetzung von Seite 4)

· Bestandteile mit biologischen Grenzwerten:
75-56-9 Propylenoxid

BGW 2500 pmol/g Globin

Untersuchungsmaterial: Erythrozytenfraktion des Vollblutes

Probennahmezeitpunkt: nach mindestens 3 Monaten Exposition

Parameter: N-(2-Hydroxypropyl)valin

· Zusätzliche Hinweise: Als Grundlage dienen die bei der Erstellung gültigen Listen.

· 8.2 Begrenzung und Überwachung der Exposition
· Persönliche Schutzausrüstung:
· Allgemeine Schutz- und Hygienemaßnahmen:

Von Nahrungsmitteln, Getränken und Futtermitteln fernhalten.

Beschmutzte, getränkte Kleidung sofort ausziehen.

Vor den Pausen und bei Arbeitsende Hände waschen.

Getrennte Aufbewahrung der Schutzkleidung.

Berührung mit den Augen vermeiden.

Berührung mit den Augen und der Haut vermeiden.

· Atemschutz:

Bei kurzzeitiger oder geringer Belastung Atemfiltergerät; bei intensiver bzw. längerer Exposition umluftunabhängiges Atemschutzgerät verwenden.

· Handschutz:


Schutzhandschuhe

Das Handschuhmaterial muss undurchlässig und beständig gegen das Produkt / den Stoff / die Zubereitung sein. Aufgrund fehlender Tests kann keine Empfehlung zum Handschuhmaterial für das Produkt / die Zubereitung / das Chemikaliengemisch abgegeben werden.

Auswahl des Handschuhmaterials unter Beachtung der Durchbruchzeiten, Permeationsraten und der Degradation.

· Handschuhmaterial

Die Auswahl eines geeigneten Handschuhs ist nicht nur vom Material, sondern auch von weiteren Qualitätsmerkmalen abhängig und von Hersteller zu Hersteller unterschiedlich.

· Durchdringungszeit des Handschuhmaterials

Die genaue Durchbruchzeit ist beim Schutzhandschuhhersteller zu erfahren und einzuhalten.

· Augenschutz:


Dichtschließende Schutzbrille

ABSCHNITT 9: Physikalische und chemische Eigenschaften

· 9.1 Angaben zu den grundlegenden physikalischen und chemischen Eigenschaften
· Allgemeine Angaben
· Aussehen:
Form: Flüssigkeit

Farbe: Farblos

· Geruch: Charakteristisch

· Geruchsschwelle: Nicht bestimmt.

(Fortsetzung auf Seite 6)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 30.10.2018

überarbeitet am: 30.10.2018

Handelsname: PROPYLENE OXIDE, ACS REAGENT

(Fortsetzung von Seite 5)

· pH-Wert:	Nicht bestimmt.
· Zustandsänderung Schmelzpunkt/Gefrierpunkt:	-111,9 °C
Siedebeginn und Siedebereich:	34,3 °C
· Flammpunkt:	-37 °C
· Entzündbarkeit (fest, gasförmig):	Nicht anwendbar.
· Zündtemperatur:	430 °C
· Zersetzungstemperatur:	Nicht bestimmt.
· Selbstentzündungstemperatur:	Nicht bestimmt.
· Explosive Eigenschaften:	Das Produkt ist nicht explosionsgefährlich, jedoch ist die Bildung explosionsgefährlicher Dampf-/Luftgemische möglich.
· Explosionsgrenzen: Untere:	1,9 Vol %
Obere:	15 Vol %
· Dampfdruck bei 20 °C:	590 hPa
· Dichte bei 20 °C:	0,8313 g/cm ³
· Relative Dichte	Nicht bestimmt.
· Dampfdichte	Nicht bestimmt.
· Verdampfungsgeschwindigkeit	Nicht bestimmt.
· Löslichkeit in / Mischbarkeit mit Wasser bei 20 °C:	405 g/l
· Verteilungskoeffizient: n-Octanol/Wasser:	Nicht bestimmt.
· Viskosität: Dynamisch:	Nicht bestimmt.
Kinematisch:	Nicht bestimmt.
· Lösemittelgehalt: VOC (EU)	0,00 %
Festkörpergehalt:	0,0 %
· 9.2 Sonstige Angaben	Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 10: Stabilität und Reaktivität

- **10.1 Reaktivität** Keine weiteren relevanten Informationen verfügbar.
- **10.2 Chemische Stabilität**
- **Thermische Zersetzung / zu vermeidende Bedingungen:**
Keine Zersetzung bei bestimmungsgemäßer Verwendung.
- **10.3 Möglichkeit gefährlicher Reaktionen** Keine gefährlichen Reaktionen bekannt.
- **10.4 Zu vermeidende Bedingungen** Keine weiteren relevanten Informationen verfügbar.
- **10.5 Unverträgliche Materialien:** Keine weiteren relevanten Informationen verfügbar.
- **10.6 Gefährliche Zersetzungsprodukte:** Keine gefährlichen Zersetzungsprodukte bekannt.

DE

(Fortsetzung auf Seite 7)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 30.10.2018

überarbeitet am: 30.10.2018

Handelsname: PROPYLENE OXIDE, ACS REAGENT

(Fortsetzung von Seite 6)

ABSCHNITT 11: Toxikologische Angaben

· 11.1 Angaben zu toxikologischen Wirkungen

· Akute Toxizität

Gesundheitsschädlich bei Verschlucken.

Giftig bei Hautkontakt oder Einatmen.

· Einstufungsrelevante LD/LC50-Werte:

75-56-9 Propylenoxid

Oral	LD50	380 mg/kg (rat)
Dermal	LD50	1.245 mg/kg (rabbit)

· Primäre Reizwirkung:

· **Ätz-/Reizwirkung auf die Haut** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

· Schwere Augenschädigung/-reizung

Verursacht schwere Augenreizung.

· **Sensibilisierung der Atemwege/Haut** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

· CMR-Wirkungen (krebserzeugende, erbgutverändernde und fortpflanzungsgefährdende Wirkung)

· Keimzell-Mutagenität

Kann genetische Defekte verursachen.

· Karzinogenität

Kann Krebs erzeugen.

· **Reproduktionstoxizität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

· Spezifische Zielorgan-Toxizität bei einmaliger Exposition

Kann die Atemwege reizen.

· Spezifische Zielorgan-Toxizität bei wiederholter Exposition

Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

· **Aspirationsgefahr** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

ABSCHNITT 12: Umweltbezogene Angaben

· 12.1 Toxizität

· **Aquatische Toxizität:** Keine weiteren relevanten Informationen verfügbar.

· **12.2 Persistenz und Abbaubarkeit** Keine weiteren relevanten Informationen verfügbar.

· **12.3 Bioakkumulationspotenzial** Keine weiteren relevanten Informationen verfügbar.

· **12.4 Mobilität im Boden** Keine weiteren relevanten Informationen verfügbar.

· Weitere ökologische Hinweise:

· Allgemeine Hinweise:

Wassergefährdungsklasse 3 (Listeneinstufung): stark wassergefährdend

Nicht in das Grundwasser, in Gewässer oder in die Kanalisation gelangen lassen, auch nicht in kleinen Mengen.

Trinkwassergefährdung bereits beim Auslaufen geringster Mengen in den Untergrund.

· 12.5 Ergebnisse der PBT- und vPvB-Beurteilung

· **PBT:** Nicht anwendbar.

· **vPvB:** Nicht anwendbar.

· **12.6 Andere schädliche Wirkungen** Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 13: Hinweise zur Entsorgung

· 13.1 Verfahren der Abfallbehandlung

· **Empfehlung:** Darf nicht zusammen mit Hausmüll entsorgt werden. Nicht in die Kanalisation gelangen lassen.

(Fortsetzung auf Seite 8)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 30.10.2018


überarbeitet am: 30.10.2018

Handelsname: PROPYLENE OXIDE, ACS REAGENT

(Fortsetzung von Seite 7)

- **Ungereinigte Verpackungen:**
- **Empfehlung:** Entsorgung gemäß den behördlichen Vorschriften.
- **Empfohlenes Reinigungsmittel:** Wasser, gegebenenfalls mit Zusatz von Reinigungsmitteln.

ABSCHNITT 14: Angaben zum Transport

<ul style="list-style-type: none"> · 14.1 UN-Nummer · ADR, IMDG, IATA 	<p style="text-align: right;">UN1280</p>
<ul style="list-style-type: none"> · 14.2 Ordnungsgemäße UN-Versandbezeichnung · ADR · IMDG, IATA 	<p style="text-align: right;">1280 PROPYLENOXID PROPYLENE OXIDE</p>
<ul style="list-style-type: none"> · 14.3 Transportgefahrenklassen · ADR, IMDG, IATA 	<div style="text-align: center;">  </div> <p style="text-align: right;">3 Entzündbare flüssige Stoffe 3</p>
<ul style="list-style-type: none"> · 14.4 Verpackungsgruppe · ADR, IMDG, IATA 	<p style="text-align: right;">I</p>
<ul style="list-style-type: none"> · 14.5 Umweltgefahren: 	<p style="text-align: right;">Nicht anwendbar.</p>
<ul style="list-style-type: none"> · 14.6 Besondere Vorsichtsmaßnahmen für den Verwender · Kemler-Zahl: · EMS-Nummer: · Stowage Category · Stowage Code 	<p style="text-align: right;">Achtung: Entzündbare flüssige Stoffe 339 3-06 E SW2 Clear of living quarters.</p>
<ul style="list-style-type: none"> · 14.7 Massengutbeförderung gemäß Anhang II des MARPOL-Übereinkommens und gemäß IBC-Code 	<p style="text-align: right;">Nicht anwendbar.</p>
<ul style="list-style-type: none"> · Transport/weitere Angaben: 	
<ul style="list-style-type: none"> · ADR · Begrenzte Menge (LQ) · Freigestellte Mengen (EQ) 	<p style="text-align: right;">0 Code: E3 Höchste Nettomenge je Innenverpackung: 30 ml Höchste Nettomenge je Außenverpackung: 300 ml</p>
<ul style="list-style-type: none"> · Beförderungskategorie · Tunnelbeschränkungscode 	<p style="text-align: right;">1 D/E</p>
<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) 	<p style="text-align: right;">0 Code: E3 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 300 ml</p>

(Fortsetzung auf Seite 9)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 30.10.2018

überarbeitet am: 30.10.2018

Handelsname: PROPYLENE OXIDE, ACS REAGENT

(Fortsetzung von Seite 8)

· UN "Model Regulation":

UN 1280 PROPYLENOXID, 3, I

ABSCHNITT 15: Rechtsvorschriften

· **15.1 Vorschriften zu Sicherheit, Gesundheits- und Umweltschutz/spezifische Rechtsvorschriften für den Stoff oder das Gemisch**

· Richtlinie 2012/18/EU

· Namentlich aufgeführte gefährliche Stoffe - ANHANG I Der Stoff ist nicht enthalten.

· Seveso-Kategorie

P5a ENTZÜNDBARE FLÜSSIGKEITEN

H2 AKUT TOXISCH

· Mengenschwelle (in Tonnen) für die Anwendung in Betrieben der unteren Klasse 10 t

· Mengenschwelle (in Tonnen) für die Anwendung in Betrieben der oberen Klasse 50 t

· VERORDNUNG (EG) Nr. 1907/2006 ANHANG XVII Beschränkungsbedingungen: 3, 28, 29

· Nationale Vorschriften:

· Hinweise zur Beschäftigungsbeschränkung:

Arbeitnehmer dürfen diesem Gefahrstoff nicht ausgesetzt sein. Im Einzelfall kann die Behörde Ausnahmen zulassen.

· Technische Anleitung Luft:

Klasse	Anteil in %
III	100,0

· Wassergefährdungsklasse: WGK 3 (Listeneinstufung): stark wassergefährdend.

· Sonstige Vorschriften, Beschränkungen und Verbotsverordnungen

Das Produkt unterliegt der Anlage 2 der Chemikalienverbotsverordnung (ChemVerbotsV) - Anforderungen in Bezug auf die Abgabe

· Besonders besorgniserregende Stoffe (SVHC) gemäß REACH, Artikel 57

75-56-9	Propylenoxid
---------	--------------

· 15.2 Stoffsicherheitsbeurteilung: Eine Stoffsicherheitsbeurteilung wurde nicht durchgeführt.

ABSCHNITT 16: Sonstige Angaben

Die Angaben stützen sich auf den heutigen Stand unserer Kenntnisse, sie stellen jedoch keine Zusicherung von Produkteigenschaften dar und begründen kein vertragliches Rechtsverhältnis.

· **Abkürzungen und Akronyme:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 1: Entzündbare Flüssigkeiten – Kategorie 1

Acute Tox. 4: Akute Toxizität – Kategorie 4

Acute Tox. 3: Akute Toxizität – Kategorie 3

(Fortsetzung auf Seite 10)

Sicherheitsdatenblatt
gemäß 1907/2006/EG, Artikel 31

Druckdatum: 30.10.2018

überarbeitet am: 30.10.2018

Handelsname: PROPYLENE OXIDE, ACS REAGENT*Eye Irrit. 2: Schwere Augenschädigung/Augenreizung – Kategorie 2**Muta. 1B: Keimzellmutagenität – Kategorie 1B**Carc. 1B: Karzinogenität – Kategorie 1B**STOT SE 3: Spezifische Zielorgan-Toxizität (einmalige Exposition) – Kategorie 3*

(Fortsetzung von Seite 9)

DE

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 30.10.2018

Revisione: 30.10.2018

SEZIONE 1: Identificazione della sostanza o della miscela e della società/impresa

· **1.1 Identificatore del prodotto**

· **Denominazione commerciale:** PROPYLENE OXIDE, ACS REAGENT

· **Articolo numero:** 20401, 20411, 20412, 20414

· **Numero CAS:**

75-56-9

· **Numeri CE:**

200-879-2

· **Numero indice:**

603-055-00-4

· **1.2 Usi identificati pertinenti della sostanza o della miscela e usi sconsigliati**

Non sono disponibili altre informazioni.

· **Utilizzazione della Sostanza / del Preparato** Prodotti chimici per laboratorio

· **1.3 Informazioni sul fornitore della scheda di dati di sicurezza**

· **Produttore/fornitore:**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

Tel: 215-412-8400 Fax: 215-412-8450

email: sgkcck@aol.com

www.emsdiasum.com

Societa Italiana Chimici

Via Rio Nell Ellba 140

00138 Rome, Italy

Tel: 39 06 8800211

Fax: 39 30 06 8815313

Web: www.sichim.com

· **Informazioni fornite da:** Product safety department

· **1.4 Numero telefonico di emergenza:**

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

SEZIONE 2: Identificazione dei pericoli

· **2.1 Classificazione della sostanza o della miscela**

· **Classificazione secondo il regolamento (CE) n. 1272/2008**



GHS02 fiamma

Flam. Liq. 1 H224 Liquido e vapori altamente infiammabili.



GHS06 teschio e tibie incrociate

Acute Tox. 3 H311 Tossico per contatto con la pelle.

Acute Tox. 3 H331 Tossico se inalato.



GHS08 pericolo per la salute

Muta. 1B H340 Può provocare alterazioni genetiche.

Carc. 1B H350 Può provocare il cancro.

(continua a pagina 2)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 30.10.2018

Revisione: 30.10.2018

Denominazione commerciale: PROPYLENE OXIDE, ACS REAGENT

(Segue da pagina 1)



GHS07

Acute Tox. 4 H302 Nocivo se ingerito.
Eye Irrit. 2 H319 Provoca grave irritazione oculare.
STOT SE 3 H335 Può irritare le vie respiratorie.

· **2.2 Elementi dell'etichetta**

· **Etichettatura secondo il regolamento (CE) n. 1272/2008**

La sostanza è classificata ed etichettata conformemente al regolamento CLP.

· **Pittogrammi di pericolo**



GHS02 GHS06 GHS08

· **Avvertenza Pericolo**

· **Componenti pericolosi che ne determinano l'etichettatura:**

ossido di propilene

· **Indicazioni di pericolo**

H224 Liquido e vapori altamente infiammabili.
H302 Nocivo se ingerito.
H311+H331 Tossico a contatto con la pelle o se inalato.
H319 Provoca grave irritazione oculare.
H340 Può provocare alterazioni genetiche.
H350 Può provocare il cancro.
H335 Può irritare le vie respiratorie.

· **Consigli di prudenza**

P210 Tenere lontano da fonti di calore, superfici calde, scintille, fiamme libere o altre fonti di accensione. Non fumare.
P241 Utilizzare impianti elettrici/di ventilazione/d'illuminazione/a prova di esplosione.
P303+P361+P353 IN CASO DI CONTATTO CON LA PELLE (o con i capelli): togliere immediatamente tutti gli indumenti contaminati. Sciacquare la pelle/fare una doccia.
P305+P351+P338 IN CASO DI CONTATTO CON GLI OCCHI: sciacquare accuratamente per parecchi minuti. Togliere le eventuali lenti a contatto se è agevole farlo. Continuare a sciacquare.
P405 Conservare sotto chiave.
P501 Smaltire il prodotto/recipiente in conformità con le disposizioni locali / regionali / nazionali / internazionali.

· **2.3 Altri pericoli**

· **Risultati della valutazione PBT e vPvB**

- **PBT:** Non applicabile.
- **vPvB:** Non applicabile.

SEZIONE 3: Composizione/informazioni sugli ingredienti

· **3.1 Caratteristiche chimiche: Sostanze**

· **Numero CAS**

75-56-9 ossido di propilene

· **Numeri di identificazione**

· **Numeri CE:** 200-879-2

(continua a pagina 3)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 30.10.2018

Revisione: 30.10.2018

Denominazione commerciale: PROPYLENE OXIDE, ACS REAGENT

(Segue da pagina 2)

· **Numero indice:** 603-055-00-4

· **SVHC**

75-56-9 | ossido di propilene

SEZIONE 4: Misure di primo soccorso

· **4.1 Descrizione delle misure di primo soccorso**

· **Indicazioni generali:**

Allontanare immediatamente gli abiti contaminati dal prodotto.

I sintomi di avvelenamento possono comparire dopo molte ore, per tale motivo è necessaria la sorveglianza di un medico nelle 48 ore successive all'incidente.

Levarsi la maschera protettiva solamente dopo aver tolto gli abiti contaminati.

In caso di respirazione irregolare o di blocco respiratorio praticare la respirazione artificiale.

· **Inalazione:**

Portare il soggetto in zona ben areata o somministrare ossigeno; chiedere l'intervento di un medico.

Se il soggetto è svenuto provvedere a tenerlo durante il trasporto in posizione stabile su un fianco.

· **Contatto con la pelle:** Lavare immediatamente con acqua e sapone sciacquando accuratamente.

· **Contatto con gli occhi:**

Lavare con acqua corrente per diversi minuti tenendo le palpebre ben aperte. Se persiste il dolore consultare il medico.

· **Ingestione:** Chiamare subito il medico.

· **4.2 Principali sintomi ed effetti, sia acuti che ritardati** Non sono disponibili altre informazioni.

· **4.3 Indicazione dell'eventuale necessità di consultare immediatamente un medico e di trattamenti speciali**

Non sono disponibili altre informazioni.

SEZIONE 5: Misure antincendio

· **5.1 Mezzi di estinzione**

· **Mezzi di estinzione idonei:**

CO₂, polvere o acqua nebulizzata. Estinguere gli incendi di grosse dimensioni con acqua nebulizzata o con schiuma resistente all'alcool.

· **5.2 Pericoli speciali derivanti dalla sostanza o dalla miscela** Non sono disponibili altre informazioni.

· **5.3 Raccomandazioni per gli addetti all'estinzione degli incendi**

· **Mezzi protettivi specifici:** Indossare il respiratore.

SEZIONE 6: Misure in caso di rilascio accidentale

· **6.1 Precauzioni personali, dispositivi di protezione e procedure in caso di emergenza**

Indossare equipaggiamento protettivo. Allontanare le persone non equipaggiate.

· **6.2 Precauzioni ambientali:**

Diluire abbondantemente con acqua.

Impedire infiltrazioni nella fognatura/nelle acque superficiali/nelle acque freatiche.

· **6.3 Metodi e materiali per il contenimento e per la bonifica:**

Raccogliere il liquido con materiale assorbente (sabbia, tripoli, legante di acidi, legante universale, segatura).

Smaltimento del materiale contaminato conformemente al punto 13.

Provvedere ad una sufficiente areazione.

· **6.4 Riferimento ad altre sezioni**

Per informazioni relative ad un manipolazione sicura, vedere capitolo 7.

Per informazioni relative all'equipaggiamento protettivo ad uso personale vedere Capitolo 8.

(continua a pagina 4)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 30.10.2018

Revisione: 30.10.2018

Denominazione commerciale: PROPYLENE OXIDE, ACS REAGENT

(Segue da pagina 3)

Per informazioni relative allo smaltimento vedere Capitolo 13.

SEZIONE 7: Manipolazione e immagazzinamento

- **7.1 Precauzioni per la manipolazione sicura**
Accurata ventilazione/aspirazione nei luoghi di lavoro.
Aprire e manipolare i recipienti con cautela.
Evitare la formazione di aerosol.
- **Indicazioni in caso di incendio ed esplosione:**
Tenere lontano da fonti di calore, non fumare.
Proteggere dal calore.
Adottare provvedimenti contro cariche elettrostatiche.
Tener pronto il respiratore.
- **7.2 Condizioni per lo stoccaggio sicuro, comprese eventuali incompatibilità**
- **Stoccaggio:**
- **Requisiti dei magazzini e dei recipienti:** Conservare in ambiente fresco.
- **Indicazioni sullo stoccaggio misto:** Non necessario.
- **Ulteriori indicazioni relative alle condizioni di immagazzinamento:**
Mantenere i recipienti ermeticamente chiusi.
Chiudere i recipienti non a tenuta di gas.
Conservare in luogo fresco e asciutto in fusti ben chiusi.
Proteggere dal calore e dai raggi diretti del sole.
- **7.3 Usi finali particolari** Non sono disponibili altre informazioni.

SEZIONE 8: Controllo dell'esposizione/protezione individuale

- **Ulteriori indicazioni sulla struttura di impianti tecnici:** Nessun dato ulteriore, vedere punto 7.

8.1 Parametri di controllo

- **Componenti i cui valori limite devono essere tenuti sotto controllo negli ambienti di lavoro:**

75-56-9 ossido di propilene

TWA	Valore a lungo termine: 4,8 mg/m ³ , 2 ppm
sen, A3	

- **Ulteriori indicazioni:** Le liste valide alla data di compilazione sono state usate come base.

8.2 Controlli dell'esposizione

Mezzi protettivi individuali:

Norme generali protettive e di igiene del lavoro:

- Tenere lontano da cibo, bevande e foraggi.
- Togliere immediatamente gli abiti contaminati.
- Lavarsi le mani prima dell'intervallo o a lavoro terminato.
- Custodire separatamente l'equipaggiamento protettivo.
- Evitare il contatto con gli occhi.
- Evitare il contatto con gli occhi e la pelle.

Maschera protettiva:

- Nelle esposizioni brevi e minime utilizzare la maschera; nelle esposizioni più intense e durature indossare l'autorespiratore.

(continua a pagina 5)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 30.10.2018

Revisione: 30.10.2018

Denominazione commerciale: PROPYLENE OXIDE, ACS REAGENT

(Segue da pagina 4)

· **Guanti protettivi:**



Guanti protettivi

Il materiale dei guanti deve essere impermeabile e stabile contro il prodotto/ la sostanza/ la formulazione.

A causa della mancanza di tests non può essere consigliato alcun tipo di materiale per i guanti con cui manipolare il prodotto / la formulazione / la miscela di sostanze chimiche.

Scelta del materiale dei guanti in considerazione dei tempi di passaggio, dei tassi di permeazione e della degradazione.

· **Materiale dei guanti**

La scelta dei guanti adatti non dipende soltanto dal materiale bensì anche da altre caratteristiche di qualità variabili da un produttore a un altro.

· **Tempo di permeazione del materiale dei guanti**

Richiedere dal fornitore dei guanti il tempo di passaggio preciso il quale deve essere rispettato.

· **Occhiali protettivi:**



Occhiali protettivi a tenuta

SEZIONE 9: Proprietà fisiche e chimiche

· **9.1 Informazioni sulle proprietà fisiche e chimiche fondamentali**

· **Indicazioni generali**

· **Aspetto:**

Forma: Liquido

Colore: Incolore

· **Odore:** Caratteristico

· **Soglia olfattiva:** Non definito.

· **valori di pH:** Non definito.

· **Cambiamento di stato**

Punto di fusione/punto di congelamento: -111,9 °C

Punto di ebollizione iniziale e intervallo di ebollizione: 34,3 °C

· **Punto di infiammabilità:** -37 °C

· **Infiammabilità (solidi, gas):** Non applicabile.

· **Temperatura di accensione:** 430 °C

· **Temperatura di decomposizione:** Non definito.

· **Temperatura di autoaccensione:** Non definito.

· **Proprietà esplosive:** Prodotto non è esplosivo, è tuttavia possibile la formazione di miscele di vapori/aria esplosive.

· **Limiti di infiammabilità:**

Inferiore: 1,9 Vol %

Superiore: 15 Vol %

· **Tensione di vapore a 20 °C:** 590 hPa

(continua a pagina 6)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 30.10.2018

Revisione: 30.10.2018

Denominazione commerciale: PROPYLENE OXIDE, ACS REAGENT

(Segue da pagina 5)

· Densità a 20 °C:	0,8313 g/cm ³
· Densità relativa	Non definito.
· Densità di vapore:	Non definito.
· Velocità di evaporazione	Non definito.
· Solubilità in/Miscibilità con acqua a 20 °C:	405 g/l
· Coefficiente di ripartizione: n-ottanolo/acqua:	Non definito.
· Viscosità:	
Dinamica:	Non definito.
Cinematica:	Non definito.
· Tenore del solvente:	
VOC (CE)	0,00 %
Contenuto solido:	0,0 %
· 9.2 Altre informazioni	Non sono disponibili altre informazioni.

SEZIONE 10: Stabilità e reattività

- **10.1 Reattività** Non sono disponibili altre informazioni.
- **10.2 Stabilità chimica**
- **Decomposizione termica/ condizioni da evitare:** Il prodotto non si decompone se utilizzato secondo le norme.
- **10.3 Possibilità di reazioni pericolose** Non sono note reazioni pericolose.
- **10.4 Condizioni da evitare** Non sono disponibili altre informazioni.
- **10.5 Materiali incompatibili:** Non sono disponibili altre informazioni.
- **10.6 Prodotti di decomposizione pericolosi:** Non sono noti prodotti di decomposizione pericolosi.

SEZIONE 11: Informazioni tossicologiche

- **11.1 Informazioni sugli effetti tossicologici**
 - **Tossicità acuta**
Nocivo se ingerito.
Tossico a contatto con la pelle o se inalato.
 - **Valori LD/LC50 rilevanti per la classificazione:**
- | | | |
|------------------------------------|------|----------------------|
| 75-56-9 ossido di propilene | | |
| Orale | LD50 | 380 mg/kg (rat) |
| Cutaneo | LD50 | 1.245 mg/kg (rabbit) |
- **Irritabilità primaria:**
 - **Corrosione/irritazione cutanea** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
 - **Lesioni oculari gravi/irritazioni oculari gravi**
Provoca grave irritazione oculare.
 - **Sensibilizzazione respiratoria o cutanea**
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
 - **Effetti CMR (cancerogenicità, mutagenicità e tossicità per la riproduzione)**
 - **Mutagenicità delle cellule germinali**
Può provocare alterazioni genetiche.
 - **Cancerogenicità**
Può provocare il cancro.
 - **Tossicità per la riproduzione** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.

(continua a pagina 7)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 30.10.2018

Revisione: 30.10.2018

Denominazione commerciale: PROPYLENE OXIDE, ACS REAGENT

(Segue da pagina 6)

- **Tossicità specifica per organi bersaglio (STOT) - esposizione singola**
Può irritare le vie respiratorie.
- **Tossicità specifica per organi bersaglio (STOT) - esposizione ripetuta**
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Pericolo in caso di aspirazione** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.


SEZIONE 12: Informazioni ecologiche

- **12.1 Tossicità**
- **Tossicità acquatica:** Non sono disponibili altre informazioni.
- **12.2 Persistenza e degradabilità** Non sono disponibili altre informazioni.
- **12.3 Potenziale di bioaccumulo** Non sono disponibili altre informazioni.
- **12.4 Mobilità nel suolo** Non sono disponibili altre informazioni.
- **Ulteriori indicazioni in materia ambientale:**
- **Ulteriori indicazioni:**
Pericolosità per le acque classe 3 (D) (Classif. secondo le liste): molto pericoloso
Non immettere nelle acque freatiche, nei corsi d'acqua o nelle fognature, anche in piccole dosi.
Pericolo per le acque potabili anche in caso di perdite nel sottosuolo di quantità minime di prodotto.
- **12.5 Risultati della valutazione PBT e vPvB**
- **PBT:** Non applicabile.
- **vPvB:** Non applicabile.
- **12.6 Altri effetti avversi** Non sono disponibili altre informazioni.

SEZIONE 13: Considerazioni sullo smaltimento

- **13.1 Metodi di trattamento dei rifiuti**
- **Consigli:** Non smaltire il prodotto insieme ai rifiuti domestici Non immettere nelle fognature.
- **Imballaggi non puliti:**
- **Consigli:** Smaltimento in conformità con le disposizioni amministrative.
- **Detergente consigliato:** Acqua eventualmente con l'aggiunta di detersivi.

SEZIONE 14: Informazioni sul trasporto

- | | |
|---|--------------------------|
| · 14.1 Numero ONU | |
| · ADR, IMDG, IATA | UN1280 |
| · 14.2 Nome di spedizione dell'ONU | |
| · ADR | 1280 OSSIDO DI PROPYLENE |
| · IMDG, IATA | PROPYLENE OXIDE |
| · 14.3 Classi di pericolo connesso al trasporto | |
| · ADR, IMDG, IATA | |
|  | |
| · Classe | 3 Liquidi infiammabili |
| · Etichetta | 3 |

(continua a pagina 8)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 30.10.2018

Revisione: 30.10.2018

Denominazione commerciale: PROPYLENE OXIDE, ACS REAGENT

(Segue da pagina 7)

· 14.4 Gruppo di imballaggio · ADR, IMDG, IATA	I
· 14.5 Pericoli per l'ambiente:	<i>Non applicabile.</i>
· 14.6 Precauzioni speciali per gli utilizzatori · Numero Kemler: · Numero EMS: · Stowage Category · Stowage Code	<i>Attenzione: Liquidi infiammabili</i> 339 3-06 E SW2 Clear of living quarters.
· 14.7 Trasporto di rifiuti secondo l'allegato II di MARPOL ed il codice IBC	<i>Non applicabile.</i>
· Trasporto/ulteriori indicazioni:	
· ADR · Quantità limitate (LQ) · Quantità esenti (EQ)	0 <i>Codice: E3</i> <i>Quantità massima netta per imballaggio interno: 30 ml</i> <i>Quantità massima netta per imballaggio esterno: 300 ml</i>
· Categoria di trasporto · Codice di restrizione in galleria	1 D/E
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	0 <i>Code: E3</i> <i>Maximum net quantity per inner packaging: 30 ml</i> <i>Maximum net quantity per outer packaging: 300 ml</i>
· UN "Model Regulation":	UN 1280 OSSIDO DI PROPYLENE, 3, I

SEZIONE 15: Informazioni sulla regolamentazione

- **15.1 Disposizioni legislative e regolamentari su salute, sicurezza e ambiente specifiche per la sostanza o la miscela**
- **Direttiva 2012/18/UE**
- **Sostanze pericolose specificate - ALLEGATO I** La sostanza non è contenuta
- **Categoria Seveso**
P5a LIQUIDI INFIAMMABILI
H2 TOSSICITÀ ACUTA
- **Quantità limite (tonnellate) ai fini dell'applicazione dei requisiti di soglia inferiore 10 t**
- **Quantità limite (tonnellate) ai fini dell'applicazione dei requisiti di soglia superiore 50 t**
- **REGOLAMENTO (CE) n. 1907/2006 ALLEGATO XVII** Restrizioni: 3, 28, 29
- **Disposizioni nazionali:**
- **Indicazioni relative alla limitazione delle attività lavorative:**
Il personale non deve essere esposto a questa sostanza pericolosa L'autorità può ammettere nei singoli casi delle eccezioni.
- **Ulteriori disposizioni, limitazioni e decreti proibitivi**
- **Sostanze estremamente preoccupanti (SVHC) ai sensi della regolamento REACH, articolo 57**

75-56-9	ossido di propilene
---------	---------------------

(continua a pagina 9)

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 30.10.2018

Revisione: 30.10.2018

Denominazione commerciale: PROPYLENE OXIDE, ACS REAGENT

(Segue da pagina 8)

15.2 Valutazione della sicurezza chimica: Una valutazione della sicurezza chimica non è stata effettuata.**SEZIONE 16: Altre informazioni**

I dati sono riportati sulla base delle nostre conoscenze attuali, non rappresentano tuttavia alcuna garanzia delle caratteristiche del prodotto e non motivano alcun rapporto giuridico contrattuale.

Abbreviazioni e acronimi:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 1: Liquidi infiammabili – Categoria 1

Acute Tox. 4: Tossicità acuta – Categoria 4

Acute Tox. 3: Tossicità acuta – Categoria 3

Eye Irrit. 2: Gravi lesioni oculari/irritazione oculare – Categoria 2

Muta. 1B: Mutagenicità sulle cellule germinali – Categoria 1B

Carc. 1B: Cancerogenicità – Categoria 1B

STOT SE 3: Tossicità specifica per organi bersaglio (esposizione singola) – Categoria 3

물질안전보건자료 GHS에 따라

기압점: 2018.10.30

개정: 2018.10.30

1 화학제품과 회사에 관한 정보

- **제품 식별자**
 - **제품명: PROPYLENE OXIDE, ACS REAGENT**
 - **상품번호:** 20401, 20411, 20412, 20414
 - **CAS-번호**
75-56-9
 - **EC 의번호:**
200-879-2
 - **색인 번호:**
603-055-00-4
 - **해당 순물질이나 혼합물의 관련 하위용도 및 사용금지용도** 추가적인 정보가 존재하지 않습니다.
 - **제품의 권고 용도와 사용상의 제한:** 실험실 화학품
 - **안전데이터표(Safety Data Sheet)내 공급업체 관련 상세 정보**
 - **제조사/수입자/유통업자 정보:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
 - **Samchang Commercial Co., Ltd.**
Yeo Eui Do
PO Box 1110
Seoul, Korea
Tel: 82 2 703 3040
Fax: 82 2 717 3298
-
- **Daedok Science, Co. Ltd.**
34141 E10 Korea Advanced Institute of Science
Guseong-Dong, Yuseong-gu, Daejeon,
Korea
Phone: 82 42 710 2091
Fax: 82 42 367 0005
Website: www.labsmro.com
 - **추가적인 정보 획득 가능:** Product safety department
 - **비상연락 전화번호:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 유해성·위험성

- **순물질 또는 혼합물의 분류**



화염

인화성 액체 - 구분 1

H224 극인화성 액체 및 증기



두개골과 대퇴골

급성 독성 - 경피 - 구분 3

H311 피부와 접촉하면 유독함

급성 독성 - 흡입 - 구분 3

H331 흡입하면 유독함

(2 쪽에 계속)

물질안전보건자료

GHS에 따라

기압점: 2018.10.30

개정: 2018.10.30

제품명: PROPYLENE OXIDE, ACS REAGENT

(1 쪽부터계속)



건강에 위험

생식세포 변이원성 - 구분 1B
발암성 - 구분 1B

H340 유전적인 결함을 일으킬 수 있음
H350 암을 일으킬 수 있음



급성 독성 - 경구 - 구분 4 H302 삼키면 유해함
심한 눈 손상성/눈 자극성 - 구분 2 H319 눈에 심한 자극을 일으킴
특정표적장기 독성 - 1회 노출 - 구분 3 H335 호흡기계 자극을 일으킬 수 있음

- 라벨표기 요소
- GHS 라벨 요소
- 본 화학물질은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.
- 그림문자



GHS02 GHS06 GHS08

- 신호어 위험
- **상표상에명확히위험성이표시된성분:**
산화프로필렌
- **유해.위험 문구**
극산화성 액체 및 증기
삼키면 유해함
피부에 접촉하거나 흡입하면 유독함.
눈에 심한 자극을 일으킴
유전적인 결함을 일으킬 수 있음
암을 일으킬 수 있음
호흡기계 자극을 일으킬 수 있음
- **예방조치 문구**
열·스파크·화염·고열로부터 멀리하시오 - 금연
폭발 방지용 전기·환기·조명·장비를 사용하시오.
피부(또는 머리카락)에 묻으면 오염된 모든 의복은 벗으시오. 피부를 물로 씻으시오/샤워하시오.
눈에 묻으면 몇 분간 물로 조심해서 씻으시오. 가능하면콘택트렌즈를 제거하시오. 계속 씻으시오.
잠금장치가 있는 저장장소에 저장하시오.
현지/지역/국가/국제 규정에 따라서 내용물/용기 노출
- **기타 유해성**
- PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과
- PBT(잔류성, 생물농축성, 독성 물질): 해당사항 없음.
- vPvB(고 잔류성, 고 생물농축성 물질): 해당사항 없음.

3 구성성분의 명칭 및 함유량

- **화 학 적 특 성:** 화학물질
- **CAS-번호표시**
75-56-9 산화프로필렌

(3 쪽에계속)

물질안전보건자료

GHS에 따라

기압점: 2018.10.30

개정: 2018.10.30

제품명: PROPYLENE OXIDE, ACS REAGENT

(2 쪽부터계속)

- 식별 번호
- EC 의번호: 200-879-2
- 색인 번호: 603-055-00-4

4 응급조치 요령

· 응급조치요령 내용

· 일반 적 정보:

이제품에 의해 오염 된 의상은 즉시 제거 한다.

중 독 증 상 은 몇 시 간 이 지 난 뒤 에 발 생 할 수 있 다. 따 라 서 사 고 가 발 생 한 후 에 적 어 도 48 시 간 동 안 은 의 료 진 의 관 찰 을 받 아 야 한 다.

반 드 시 오 염 된 의 상 을 완 전 히 제 거 한 후 에 호 흡 보 호 기 를 떼 어 낸 다.

불 규 칙 적 인 호 흡 이 나 호 흡 정 지 상 태 에 서 는 인 공 호 흡 을 실 시 한 다.

· 흡입했을 때:

신 선 한 공 기 나 산 소 를 공 급 받 고, 의 료 진 의 도 움 을 구 한 다.

환 자 가 의 식 을 잃 었 을 경 우 에 는 안 전 한 자 세 에 서 환 자 를 운 반 한 다.

· 피부에 접촉했을 때:

즉 시 물 과 비 누 로 씻 고 잘 행 군 다.

· 눈에 들어갔을 때:

흐 르 는 물 에 눈 을 몇 분 동 안 씻 어 내 고 나 서, 증 상 이 지 속 될 경 우 에 는 의 사 와 상 담 한 다

· 먹었을 때:

즉 시 의 사 의 도 움 을 구 한 다.

· 기타 의사의 주의사항:

· 가장 중요한 급·만성 증상 및 영향 추가적인 정보가 존재하지 않습니다.

· 즉각적인 의료처치 및 특별치료가 필요함을 시사하는 징후 추가적인 정보가 존재하지 않습니다.

5 폭발·화재시 대처방법

· 소화제

· 적절한 소화제:

이 산 화 탄 소, 진 화 용 석 회 가 루 또는 물 방 사 를 사 용 하 고, 더 큰 화 재 는 물 을 분 사 하 거 나 알 코 올 이 함 유 된 거 품 으 로 끈 다.

· 본 화학물질이나 혼합물에서 발생하는 특별 유해성 추가적인 정보가 존재하지 않습니다.

· 소방관에 대한 권고사항

· 화재 진압 시 착용할 보호구 및 예방조치: 호흡보호장비설치.

6 누출 사고 시 대처방법

· 개인적 예방조치, 보호장비 및 응급처치 절차 안전장비 착용하고, 무방비의 사람은 격리시킨다.

· 환경 관련 예방조치:

많은 물로 희석시킨다.

하수도망/해수면위의물/지하수로도달하지않게한다.

· 밀폐 및 정화 방법과 소재:

액체가 혼합된 물질(모래, 규조토, 산성결합물, 일반결합물, 톱밥)에 흡입되도록 한다.

항목 13에 따라 오염된 물질을 쓰레기로 처분한다.

충분한 환기가 되도록 한다.

· 타 섹션 참조

안 전 관 리 에 대 한 정 보 는 제 7 장 을 참 고 하 시 오.

개 인 보 호 장 비 에 대 한 정 보 는 제 8 장 을 참 고 하 시 오.

쓰 레 기 처 리 에 대 한 정 보 는 제 13 장 을 참 고 하 시 오.

KR

(4 쪽에계속)

물질안전보건자료

GHS에 따라

기압점: 2018.10.30

개정: 2018.10.30

제품명: PROPYLENE OXIDE, ACS REAGENT

(3 쪽부터계속)

7 취급 및 저장방법

- **취급:**
- **안전 취급을 위한 예방조치**
 작업장에서는통풍이잘되고/습기제거가잘 되게주의한다.
 조심스럽게용기를 개봉하거나취급한다.
 연무질이형성되는것을피한다.
- **화재 및 폭발 사고 예방대책에 관한 정보:**
 발 화 요소는 멀리 둔 다.금 연.
 열로부터보호한다.
 정 전 기 의 충 전 으로부터 보호한다.
 호흡보호장비를항상비치한다.
- **혼합위험성 등 안전 저장 조건**
- **보관:**
- **안전한 저장 방법:** 차 가 운 장 소 에 보 관 한 다.
- **하나의 공동 보관 시설에 대한 보관 관련 정보:** 필 요 없 음
- **보 관 조 건 에 관 한 추 가 적 인 정 보:**
 용기를새지않게밀폐한채보관한다.
 요 기 를 가 스 가 새 지 않 게 밀 폐 시 킨 다.
 밀폐된용기속에서늘 하고건 조 하 게 보 관 한 다.
 열이나직사광선으로부터보호한다.
- **구체적 최종 사용자** 추가적인 정보가 존재하지 않습니다.

8 노출방지 및 개인보호구

- **첨단시설 디자인에 대한 추가정보:** 더 이 상 의 자 료 는 없 음. 항 목 7 을 참 고 하 시 오.
- **통제 변수**

· **화학물질의 노출기준, 생물학적 노출기준 등:**

75-56-9 산화프로필렌

TLV (KR)	장기간의값: 2 ppm 발암성1B,생식세포 변이원성1B
BOELV (EU)	장기간의값: 2.4 mg/m ³ , 1 ppm
PEL (US)	장기간의값: 240 mg/m ³ , 100 ppm
REL (US)	See Pocket Guide App. A
TLV (US)	장기간의값: 4.8 mg/m ³ , 2 ppm DSEN

· **추 가 정 보:** 제 조 할 당 시 에 유 효 한 목 록 을 기 초 로 사 용 했 다.

- **노출 통제**
- **개인 보호구**
- **일반적보호조치및위생조치:**
 식 료 품, 음 료 수 와 사 료 로 부 터 멀 리 떨 어 뜨 려 놓 는 다.
 더 러 워 지 거 나 음 료 수 가 물 은 옷 은 즉 시 탈 의 한 다.
 휴 식 전 이 나 작 업 이 끝 날 때 마 다 손 을 씻 는 다.
 방 호 복 은 따 로 보 관 한 다.
 눈 과 의 접 촉 을 피 한 다.
 눈 과 피 부 와 의 접 촉 은 피 한 다.
- **호흡기 보호:**
 단 시 간 또 는 경 미 한 오 염 의 경 우 에 는 호 흡 여 과 기 를 사 용 한 다. 심 각 한 또 는 장 기 간 노 출 시 에 는 호 흡 보 호 장 비 를 사 용 한 다.

(5 쪽에계속)

물질안전보건자료

GHS에 따라

기압점: 2018.10.30

개정: 2018.10.30

제품명: PROPYLENE OXIDE, ACS REAGENT

(4 쪽부터계속)

· 손 보호:



보호용 장갑

장갑재질은제품 / 원료 / 조제를투과시키지않아야하고, 내구성이있어야한다.
테스트를 하지 않았기 때문에 제품 / 조제 / 화학 혼합 물에 적합한 장갑재질에 대한 추천이 없다.
투과 시간, 침투율 과 저하를 고려해서 장갑 재료를 선택한다.

· 장갑의재료

적합한장갑의선정은재질차이뿐아니라품질기준의차이도고려하여이루어져야하고제조업자에따라서도다르게선정되어야한다.

· 장갑 재료 의 투과시 간 정확한관통시간은보호장갑제조자에의하여인지되고, 준수되어야한다.

· 눈 보호:



확조이는보안경

9 물리화학적 특성

· 기본 물리 및 화학적 특성에 대한 정보

· 일반정보

· 외형

· 물리적 상태:	액체
· 색:	색소가없는
· 냄새:	특색있는
· 후각역치	알맞지않다.

· pH: 알맞지않다.

· 상태변화

· 녹는점/어는점:	-111.9 °C
· 초기 끓는점과 끓는점 범위:	34.3 °C

· 인화점: -37 °C

· 인화성(고체, 기체): 해당사항 없음.

· 점화온도: 430 °C

· 분해 온도: 알맞지않다.

· 자기점화: 알맞지않다.

· 폭발위험: 이제품은폭발위험성이없지만, 폭발가능성이있는증기화합물/공기화합물의형성가능성이있다.

· 인화 또는 폭발 범위의 상한/하한

· 아래로:	1.9 Vol %
· 위로:	15 Vol %

· 증기압 의경우 20 °C: 590 hPa

· 밀도 의경우 20 °C: 0.8313 g/cm³

· 비중: 알맞지않다.

· 증기밀도: 알맞지않다.

(6 쪽에계속)

물질안전보건자료

GHS에 따라

기압점: 2018.10.30

개정: 2018.10.30

제품명: PROPYLENE OXIDE, ACS REAGENT

(5 쪽부터계속)

· 증발 속도:	알맞지않다.
· 용해도: 물 의경우 20 °C:	405 g/l
· n 옥탄올/물 분배계수:	알맞지않다.
· 점도: 역학성: 동점성:	알맞지않다. 알맞지않다.
· 용매내용물 VOC (EU)	0.00 %
· 고체의 함량: · 기타 정보	0.0 % 추가적인 정보가 존재하지 않습니다.

10 안정성 및 반응성

- 반응성 추가적인 정보가 존재하지 않습니다.
- 화학적 안정성
- 화학적 안정성 및 유해 반응의 가능성 / 피해야 할 조건: 규정에따라사용할경우해체는없다
- 유해반응 가능성 위험한반응으로는알려지지않았다.
- 피해야 할 조건 추가적인 정보가 존재하지 않습니다.
- 혼합 금지 물질: 추가적인 정보가 존재하지 않습니다.
- 유해분해물질: 위험성있는분해물들은알려지지않았다.

11 독성에 관한 정보

- 독성학적 영향에 대한 정보
- 급성 독성:

· LD/LC50-수치에 따른 분류:		
75-56-9 산화프로필렌		
구강의	LD50	380 mg/kg (rat)
피부의	LD50	1,245 mg/kg (rabbit)

- 일차적 자극 효과:
- 피부 부식성 또는 자극성: 무자극
- 심한 눈 손상 또는 자극성: 자극
- 감각화: 민감한영향이없는것으로알려져있다.
- 다음 종류의 잠재적인 효과에 대한 정보
- CMR-효과 (암 유발, 돌연변이성 그리고 생식 독성)
생식세포 변이원성 - 구분 1B, 발암성 - 구분 1B

12 환경에 미치는 영향

- 독성
- 수생독성: 추가적인 정보가 존재하지 않습니다.
- 지속성 및 분해성 추가적인 정보가 존재하지 않습니다.
- 환경 시스템에서의 행동:
- 생물농축 잠재성 추가적인 정보가 존재하지 않습니다.
- 토양내 이동성 추가적인 정보가 존재하지 않습니다.

(7 쪽에계속)

물질안전보건자료

GHS에 따라

기압점: 2018.10.30

개정: 2018.10.30

제품명: PROPYLENE OXIDE, ACS REAGENT


(6 쪽부터계속)

- **추가적인 생태학 정보:**
- **일반 특징:**
수질오염등급 3 (목록분류): 심하게수질오염이된 지하수나, 하천으로또는 하수도망에도달하지않게한다. 역시극소수의양이라도안된다. 지하수로아주미세한양이유입되었을경우엔이미식수오염상태이다
- **PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과**
- **PBT(잔류성, 생물농축성, 독성 물질):** 해당사항 없음.
- **vPvB(고 잔류성, 고 생물농축성 물질):** 해당사항 없음.
- **기타 부작용** 추가적인 정보가 존재하지 않습니다.

13 폐기시 주의사항

- **폐기물 처리 방법**
- **권고:** 생활쓰레기와함께처리되어서는안된다. 하수도망으로유입되어서는안된다.
- **비위생적 포장:**
- **권고:** 당국의지침에입각한쓰레기처리.
- **추천 세정제:** 경우에따라서세제가첨가된물

14 운송에 필요한 정보

· 유엔 번호	UN1280
· ADR, IMDG, IATA	
· UN 적정 선적명	1280 PROPYLENE OXIDE
· ADR	PROPYLENE OXIDE
· IMDG, IATA	
· 교통 위험 클래스	
· ADR, IMDG, IATA	
	
· 등급	3 발화성용액
· 위험물 라벨	3
· 용기등급	I
· ADR, IMDG, IATA	
· 환경적 유해물질:	해당사항 없음.
· 이용자 특별 예방조치	경고: 발화성용액
· 위험 코드:	339
· EMS-번호:	3-06
· Stowage Category	E
· Stowage Code	SW2 Clear of living quarters.
· MARPOL73/78(선박으로부터의 해양오염방지협약) 부속서2 및 IBC Code(국제선적화물코드)에 따른 벌크(bulk) 운송	해당사항 없음.

(8 쪽에계속)

물질안전보건자료

GHS에 따라

기압점: 2018.10.30

개정: 2018.10.30

제품명: PROPYLENE OXIDE, ACS REAGENT

(7 쪽부터계속)

· 운 송/추가 정보:

· ADR

· 한정 수량 (LQ)

0

· Excepted quantities (EQ)

Code: E3

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 300 ml

· 운송 구분

1

· 터널 제한 코드

D/E

· IMDG

· Limited quantities (LQ)

0

· Excepted quantities (EQ)

Code: E3

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 300 ml

· UN "모범 규제":

UN 1280 PROPYLENE OXIDE, 3, I

15 법적 규제현황

· 산업안전보건법에 의한 규제:

· 제조 등 금지물질:

성분이포함되어있지않다

· 허가대상물질:

성분이포함되어있지않다

· 관리대상유해물질:

성분이포함되어있다

· 해당 순물질 또는 혼합물에 대한 안전, 보건 및 환경 규제/법률

· Korean Existing Chemical Inventory

KE-24565

· 화학물질관리법

· 사고대비물질

성분이포함되어있다

· 금지물질

성분이포함되어있지않다

· 제한물질

성분이포함되어있지않다

· 유독물질

성분이포함되어있다

· 허가물질

성분이포함되어있다

· GHS 라벨 요소

본 화학물질은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.

(9 쪽에계속)

물질안전보건자료

GHS에 따라

기압점: 2018.10.30

개정: 2018.10.30

제품명: PROPYLENE OXIDE, ACS REAGENT

(8 쪽부터계속)

· 그림문자



GHS02 GHS06 GHS08

· 신호어 위험

· 상표상에명확히위험성이표시된성분:

산화프로필렌

· 유해.위험 문구

극인화성 액체 및 증기

삼키면 유해함

피부에 접촉하거나 흡입하면 유독함.

눈에 심한 자극을 일으킴

유전적인 결함을 일으킬 수 있음

압을 일으킬 수 있음

호흡기계 자극을 일으킬 수 있음

· 예방조치 문구

열·스파크·화염·고열로부터 멀리하십시오 - 금연

폭발 방지용 전기·환기·조명·장비를 사용하십시오.

피부(또는 머리카락)에 묻으면 오염된 모든 의복은 벗으십시오. 피부를 물로 씻으십시오/샤워하십시오.

눈에 묻으면 몇 분간 물로 조심해서 씻으십시오. 가능하면콘택트렌즈를 제거하십시오. 계속 씻으십시오.

잠금장치가 있는 저장장소에 저장하십시오.

현지/지역/국가/국제 규정에 따라서 내용물/용기 노출

· 국내규정:

· 사용제한에 대한 정보:

노동자들은이러한위험물 질을 내버리지말아야한다. 개별적인경우에관청은예외를허가할수있다.

· 화학물질 안전성 평가: 화학물질 안전성 평가가 수행되지 않음

16 그 밖의 참고사항

이보고는우리지식에대한오늘날의상태에대하여평가하고있다, 하지만이보고서는생산특성에관한보증은 기술하지않았으며계약적인법률관계에기반을두고있지도않다

· **최초 작성일자:** 2018.10.30

· **개정 횟수 및 최종 개정일자:** 1 / 2018.10.30

· 약어와 두문자어:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Helaiian Data Keselamatan menurut P.U.(A) 310/2013

Tarikh cetak 30.10.2018

Disemak semula pada 30.10.2018

1 Pengenalan bahan kimia berbahaya dan pembekal

- **Pengenal pasti produk**
- **Nama dagang:** *PROPYLENE OXIDE, ACS REAGENT*
- **Nombor artikel:** 20401, 20411, 20412, 20414
- **Nombor CAS:**
75-56-9
- **Nombor EC:**
200-879-2
- **Nombor EU:**
603-055-00-4
- **Kegunaan yang disarankan bagi bahan dan sekatan penggunaan** Tiada maklumat lanjut yang diperoleh.
- **Penggunaan bahan/sediaan** Bahan kimia makmal
- **Perincian pembekal risalah data keselamatan**
- **Pengilang/Pembekal:**
*Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com*
- **Maklumat lanjut dapat diperoleh daripada:** *Product safety department*
- **Nombor telefon kecemasan:**
*ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887*

2 Pengenalan bahaya

- **Pengelasan bahan atau campuran**



Nyalaan

Cec. M. Bkr 1 H224 Cecair dan wap paling mudah terbakar.



Tengkorak dan tulang bersilang

Toks. Akut 3 H311 Toksik jika terkena kulit.

Toks. Akut 3 H331 Toksik jika tertersedut.



Bahaya kesihatan

Muta. 1B H340 Boleh menyebabkan kecacatan genetik..

Kars. 1B H350 Boleh menyebabkan kanser.



Toks. Akut 4 H302 Memudaratkan jika tertelan.

Kreng. Mata 2 H319 Menyebabkan kerengsaan mata yang serius.

STOT SE 3 H335 Boleh menyebabkan kerengsaan pernafasan.

(Bersambung ke halaman 2)

Helaiian Data Keselamatan menurut P.U.(A) 310/2013

Tarikh cetak 30.10.2018

Disemak semula pada 30.10.2018

Nama dagang: PROPYLENE OXIDE, ACS REAGENT

(Sambungan halaman 1)

- **Melabelkan unsur**
- **Unsur label GHS** Bahan ini dikelaskan dan dilabelkan menurut Sistem Terharmoni Global (GHS).
- **Piktogram hazard**



- **Perkataan isyarat Bahaya**
- **Komponen pelabelan yang menentukan bahaya:**
Metiloksirana
- **Pernyataan hazard**
Cecair dan wap paling mudah terbakar.
Memudaratkan jika tertelan.
Toksik jika terkena kulit atau tersedut.
Menyebabkan kerengsaan mata yang serius.
Boleh menyebabkan kecacatan genetik..
Boleh menyebabkan kanser.
Boleh menyebabkan kerengsaan pernafasan.
- **Pernyataan langkah perlindungan**
Jauhkan daripada haba/percikan api/nyalaan terbuka/permukaan panas – Dilarang merokok.
Gunakan kelengkapan elektrik/pengalihudaraan/pencahayaan yang tahan letupan.
JIKA TERKENA KULIT (atau rambut): Segera tanggalkan/buka semua pakaian yang tercemar. Basuh kulit dengan air/pancuran air.
JIKA TERKENA MATA: Bilas berhati-hati dengan air selama beberapa minit. Tanggalkan kanta lekap, jika ada dan dapat dilakukan dengan mudah. Teruskan membilas.
Simpan di tempat berkunci.
Lupuskan kandungan/bekas menurut peraturan tempatan/wilayah/kebangsaan/antarabangsa.
- **Bahaya lain**
- **Keputusan penilaian PBT dan vPvB**
- **PBT:** Tidak berkenaan
- **vPvB:** Tidak berkenaan

3 Komposisi dan maklumat mengenai ramuan bahan kimia berbahaya

- **Ciri kimia: Bahan**
- **Keterangan No. CAS**
75-56-9 Metiloksirana
- **Nombor pengenaltastian**
- **Nombor EC:** 200-879-2
- **Nombor EU:** 603-055-00-4

4 Langkah-langkah pertolongan cemas

- **Keterangan langkah pertolongan cemas**
- **Maklumat am:**
Segera tanggalkan mana-mana pakaian yang terkena produk.
Gejala keracunan boleh berlaku selepas beberapa jam, maka rawatan perubatan hendaklah diberikan sekurang-kurangnya 48 jam selepas kemalangan.
Tanggalkan kelengkapan pernafasan hanya selepas pakaian yang tercemar telah ditanggalkan semuanya.

(Bersambung ke halaman 3)

Helaiian Data Keselamatan menurut P.U.(A) 310/2013

Tarikh cetak 30.10.2018

Disemak semula pada 30.10.2018

Nama dagang: PROPYLENE OXIDE, ACS REAGENT

(Sambungan halaman 2)

- Berikan pernafasan bantuan jika pernafasan tidak tetap atau terhenti.
- **Jika tersedut:**
Berikan udara bersih atau oksigen, dapatkan rawatan doktor.
Jika mangsa tidak sedarkan diri, letakkan pesakit dengan stabil dalam kedudukan mengiring untuk diangkat.
- **Jika terkena kulit:** Segera basuh dengan air dan sabun serta bilas bersih-bersih.
- **Jika terkena mata:**
Bilas mata sambil membukanya di bawah air yang mengalir selama beberapa minit. Jika gejala berterusan, hubungi doktor.
- **Jika tertelan:** Segera hubungi doctor.
- **Maklumat untuk doktor:**
- **Gejala dan kesan paling penting, akut dan lewat** Tiada maklumat lanjut yang diperoleh.
- **Arahan bagi apa-apa rawatan perubatan dan rawatan khas yang diperlukan**
Tiada maklumat lanjut yang diperoleh.

5 Langkah-langkah pamadaman kebakaran

- **Bahan pamadam api**
- **Agen pamadam yang sesuai:**
CO₂, serbuk atau semburan air. Padam kebakaran besar dengan semburan air atau busa rintangan alkohol.
- **Bahaya khusus yang timbul daripada bahan atau campuran** Tiada maklumat lanjut yang diperoleh.
- **Panduan kepada pamadam kebakaran**
- **Kelengkapan perlindungan:** Peralatan perlindungan pernafasan mulut.

6 Langkah-langkah pelepasan tidak sengaja

- **Langkah perlindungan diri, kelengkapan pelindung dan prosedur kecemasan**
Pakai kelengkapan perlindungan. Jauhkan mereka yang tidak dilindung dari kawasan tercemar.
- **Langkah perlindungan alam sekitar:**
Cairkan dengan air yang banyak.
Jangan biarkannya memasuki pembentung/air permukaan atau tanah.
- **Kaedah dan bahan untuk pembendungan dan pembersihan:**
Serap dengan bahan cecair pengikat (pasir, diatomit, pengikat asid, pengikat semesta, habuk papan)
Lupuskan bahan tercemar sebagai sisa mengikut perkara 13.
Pastikan pengalihan udara mencukupi.
- **Rujukan ke bahagian lain**
Lihat Bahagian 7 untuk maklumat pengendalian yang selamat.
Lihat Bahagian 8 untuk maklumat kelengkapan perlindungan diri.
Lihat Bahagian 13 untuk maklumat pelupusan.

7 Pengendalian dan penyimpanan

- **Pengendalian:**
- **Langkah perlindungan untuk pengendalian selamat**
Pastikan pengalihan udara/ekzos yang mencukupi di tempat kerja.
Buka dan kendalikan bekas dengan cermat.
Elakkan pembentukan aerosol.
- **Maklumat kebakaran dan perlindungan daripada letupan:**
Jauhkan dari punca pencucuhan - Dilarang merokok.
Lindungi daripada haba.
Lindungi daripada cas-cas elektrostatik.
Pastikan alat perlindungan pernafasan sentiasa ada.

(Bersambung ke halaman 4)

Helaian Data Keselamatan menurut P.U.(A) 310/2013

Tarikh cetak 30.10.2018

Disemak semula pada 30.10.2018

Nama dagang: PROPYLENE OXIDE, ACS REAGENT

(Sambungan halaman 3)

- **Keadaan untuk penyimpanan selamat, termasuk apa-apa ketakserasian**
- **Penyimpanan:**
- **Keperluan yang mesti dipenuhi oleh bilik stor dan ruang simpanan.** Simpan di tempat sejuk.
- **Maklumat penyimpanan di dalam satu tempat penyimpanan yang biasa:** Tidak diperlukan.
- **Maklumat lanjut tentang syarat penyimpanan:**
 - Pastikan bekas sentiasa bertutup rapat.
 - Jangan tutup bekas kedap gas.
 - Simpan di tempat yang sejuk dan kering di dalam bekas bertutup rapat.
 - Lindungi daripada haba dan pancaran terus cahaya matahari.
- **Kegunaan akhir yang khusus** Tiada maklumat lanjut yang diperolehi.

8 Kawalan pendedahan dan perlindungan diri

- **Maklumat tambahan tentang reka bentuk kemudahan teknikal:** Tiada maklumat lanjut, lihat perkara 7.
- **Parameter kawalan**

· **Ramuan dengan nilai had yang memerlukan pemantauan di tempat kerja:**

75-56-9 Metiloksirana

PEL Nilai jangka panjang: 48 mg/m³, 20 ppm

- **Maklumat tambahan:** Senarai yang sah semasa pembuatan digunakan sebagai asas.
- **Kawalan pendedahan**
- **Kelengkapan perlindungan diri:**
- **Langkah perlindungan dan kebersihan am:**
 - Jauhkan daripada makanan, minuman dan makanan haiwan.
 - Segera tanggalkan semua pakaian yang tercemar dan kotor.
 - Basuh tangan sebelum berhenti rehat dan apabila kerja selesai.
 - Simpan pakaian perlindungan secara berasingan.
 - Elakkan daripada terkena mata.
 - Elakkan daripada terkena mata dan kulit.
- **Perlindungan pernafasan:**
 - Jika berlaku pendedahan sekejap atau sedikit pencemaran, gunakan alat penapis pernafasan. Jika berlaku pendedahan yang intensif atau berpanjangan, gunakan alat pernafasan perlindungan serba lengkap.
- **Perlindungan tangan:**



Sarung tangan pelindung.

Bahan sarung tangan hendaklah telus dan kalis terhadap produk/bahan/sediaan.

Oleh sebab tiada ujian yang dijalankan, maka tiada syor bagi bahan sarung tangan yang boleh diberikan untuk produk/sediaan/campuran kimia.

Pemilihan bahan sarung tangan berdasarkan waktu penembusan, kadar pembauran dan degradasi.

- **Bahan sarung tangan**

Pemilihan sarung tangan yang sesuai bukan hanya bergantung pada bahannya, tetapi juga tanda kualiti lainnya serta perbezaannya daripada satu pengeluaran dengan pengeluaran yang lain.

- **Jangka masa penyerapan bahan sarung tangan**

Waktu kemunculan yang tepat hendaklah diperolehi pengeluaran sarung tangan pelindung dan hendaklah dipatuhi.

(Bersambung ke halaman 5)

Helaiian Data Keselamatan menurut P.U.(A) 310/2013

Tarikh cetak 30.10.2018

Disemak semula pada 30.10.2018

Nama dagang: PROPYLENE OXIDE, ACS REAGENT

(Sambungan halaman 4)

· **Perlindungan mata:**



Gogal bertutup rapat

9 Sifat fizikal dan kimia

· **Maklumat tentang ciri fizik dan kimia**

· **Maklumat Am**

· **Rupa:**

· **Bentuk:**

Cecair

· **Warna:**

Tidak berwarna

· **Bau:**

Ciri

· **Ambang bau**

Tidak ditentukan.

· **Nilai pH:**

Tidak ditentukan.

· **Perubahan pada keadaan**

· **Takat lebur/takat beku**

-111.9 °C

· **Takat didih awal dan julat didih**

34.3 °C

· **Takat kilat:**

-37 °C

· **Kemudahbakaran (pepejal, gas)**

Tidak berkenaan

· **Suhu pencucuhan:**

430 °C

· **Suhu penguraian:**

Tidak ditentukan.

· **Suhu pengautocucuhan**

Tidak ditentukan.

· **Bahaya letupan:**

Produk tidak mudah meletup. Walau bagaimanapun, pembentukan campuran udara/wap mungkin berlaku.

· **Had letupan :**

· **Bawah:**

1.9 Vol %

· **Atas:**

15 Vol %

· **Tekanan wap pada 20 °C:**

590 hPa

· **Ketumpatan pada 20 °C:**

0.8313 g/cm³

· **Ketumpatan bandingan**

Tidak ditentukan.

· **Ketumpatan wap**

Tidak ditentukan.

· **Kadar penyejatan**

Tidak ditentukan.

· **Keterlarutan dalam / Keterlarutcampuran dengan**

· **Air pada 20 °C:**

405 g/l

· **Pekali sekatan: n-oktanol/air**

Tidak ditentukan.

· **Kelikatan:**

· **Dinamik:**

Tidak ditentukan.

· **Kinematik:**

Tidak ditentukan.

· **Kandungan pepejal:**

0.0 %

· **Maklumat lain**

Tiada maklumat lanjut yang diperoleh.

MY

(Bersambung ke halaman 6)

Helaiian Data Keselamatan menurut P.U.(A) 310/2013

Tarikh cetak 30.10.2018

Disemak semula pada 30.10.2018

Nama dagang: PROPYLENE OXIDE, ACS REAGENT

(Sambungan halaman 5)

10 Kestabilan dan kereaktifan

- **Kereaktifan** Tiadak maklumat lanjut yang diperoleh.
- **Kestabilan kimia**
- **Penguraian terma/keadaan yang perlu dielakkan:** Tiada penguraian jika digunakan mengikut spesifikasi.
- **Kemungkinan tindak balas berbahaya** Tiada tindak balas berbahaya yang diketahui.
- **Keadaan yang perlu dielakkan** Tiadak maklumat lanjut yang diperoleh.
- **Bahan tidak serasi:** Tiadak maklumat lanjut yang diperoleh.
- **Produk penguraian yang berbahaya:** Tiada produk penguraian berbahaya yang diketahui.

11 Maklumat toksikologi

- **Maklumat tentang kesan toksikologi**
- **Ketoksikan akut:**

· **Nilai LD/LC50 yang berkaitan untuk pengelasan:**

75-56-9 Metiloksirana

Oral	LD50	380 mg/kg (rat)
Derma	LD50	1,245 mg/kg (rabbit)

- **Kesan kerengsaan primer:**
- **Kakisan atau kerengsaan kulit** Tiada kesan merengsa.
- **Kerosakan atau kerengsaan mata yang serius** Kesan merengsa.
- **Pemekaan pernafasan / kulit** Tiada kesan pemekaan yang diketahui.
- **Maklumat bagi kumpulan berikut tentang kesan yang mungkin timbul.**
- **Kesan CMR (karsinogen, mutagen dan gangguan kesuburan)**
Muta. 1B, Kars. 1B

12 Maklumat ekologi

- **Ketoksikan**
- **Ketoksikan akuatik:** Tiadak maklumat lanjut yang diperoleh.
- **Keterusan dan keterdegradasikan** Tiadak maklumat lanjut yang diperoleh.
- **Kelakuan dalam sistem alam sekitar:**
- **Potensi bioakumulatif** Tiadak maklumat lanjut yang diperoleh.
- **Mobiliiti di dalam tanah** Tiadak maklumat lanjut yang diperoleh.
- **Maklumat tambahan ekologi:**

· **Nota am:**

Bahaya air kelas 3 (Peraturan Jerman) (Penilaian mengikut senarai): amat berbahaya kepada air
Jangan biarkan produk memasuki air tanah, saluran air atau sistem pembetungan, walaupun sedikit.
Bahaya kepada air minuman walaupun dalam amat sedikit produk kebocoran yang memasuki tanah

· **Keputusan penilaian PBT dan vPvB**

- **PBT:** Tidak berkenaan
- **vPvB:** Tidak berkenaan

· **Kesan buruk yang lain** Tiadak maklumat lanjut yang diperoleh.

MY

(Bersambung ke halaman 7)

Helaiian Data Keselamatan menurut P.U.(A) 310/2013

Tarikh cetak 30.10.2018

Disemak semula pada 30.10.2018


Nama dagang: PROPYLENE OXIDE, ACS REAGENT

(Sambungan halaman 6)

13 Maklumat pelupusan

- **Kaedah rawatan sisa**
- **Syor:**
Tidak boleh dilupuskan bersama dengan sampah isi rumah. Jangan biarkan produk memasuki sistem pembentungan.
- **Pembungkusan yang tidak bersih:**
- **Syor:** Pelupusan mestilah dijalankan menurut peraturan rasmi
- **Agan pencuci yang disyorkan:** Air, jika perlu, digunakan bersama dengan agan pencuci.

14 Maklumat pengangkutan

· Nombor UN · ADR, IMDG, IATA	UN1280
· Nama penghantaran UN yang betul · ADR · IMDG, IATA	1280 PROPYLENE OXIDE PROPYLENE OXIDE
· pengangkutan kelas bahaya · ADR, IMDG, IATA	
	
· Kelas · Label	3 Cecair mudah terbakar. 3
· Kumpulan pembungkusan · ADR, IMDG, IATA	I
· Hazard persekitaran:	Tidak berkenaan
· Langkah perlindungan khas untuk pengguna · Kod bahaya (Kemler): · Nombor EMS: · Stowage Category · Stowage Code	Amaran: Cecair mudah terbakar. 339 3-06 E SW2 Clear of living quarters.
· Pengangkutan dalam pukal menurut Lampiran II MARPOL73/78 dan Kod IBC	Tidak berkenaan
· Pengangkutan/Maklumat Tambahan:	
· ADR · Excepted quantities (EQ)	Code: E3 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 300 ml
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	0 Code: E3 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 300 ml

(Bersambung ke halaman 8)

MY

Helaiian Data Keselamatan menurut P.U.(A) 310/2013

Tarikh cetak 30.10.2018

Disemak semula pada 30.10.2018

Nama dagang: PROPYLENE OXIDE, ACS REAGENT

(Sambungan halaman 7)

· **"Peraturan Model" UN:** UN 1280 PROPYLENE OXIDE, 3, I

15 Maklumat pengawalseliaan

- **Peraturan/undang-undang keselamatan, kesihatan dan persekitaran khusus untuk bahan atau campuran tersebut**
- **Unsur label GHS** Bahan ini dikelaskan dan dilabelkan menurut Sistem Terharmoni Global (GHS).
- **Piktogram hazard**



GHS02 GHS06 GHS08

- **Perkataan isyarat Bahaya**
- **Komponen pelabelan yang menentukan bahaya:**
Metiloksirana
- **Pernyataan hazard**
Cecair dan wap paling mudah terbakar.
Memudaratkan jika tertelan.
Toksik jika terkena kulit atau tersedut.
Menyebabkan kerengsaan mata yang serius.
Boleh menyebabkan kecacatan genetik..
Boleh menyebabkan kanser.
Boleh menyebabkan kerengsaan pernafasan.
- **Pernyataan langkah perlindungan**
Jauhkan daripada haba/percikan api/nyalaan terbuka/permukaan panas – Dilarang merokok.
Gunakan kelengkapan elektrik/pengalihudaraan/pencahayaan yang tahan letupan.
JIKA TERKENA KULIT (atau rambut): Segera tanggalkan/buka semua pakaian yang tercemar. Basuh kulit dengan air/pancuran air.
JIKA TERKENA MATA: Bilas berhati-hati dengan air selama beberapa minit. Tanggalkan kanta lekap, jika ada dan dapat dilakukan dengan mudah. Teruskan membilas.
Simpan di tempat berkunci.
Lupuskan kandungan/bekas menurut peraturan tempatan/wilayah/kebangsaan/antarabangsa.
- **Peraturan kebangsaan:**
- **Maklumat had kegunaan:**
Pekerja tidak dibenarkan terdedah kepada bahan berbahaya ini. Pengecualian boleh dibuat oleh pihak berkuasa dalam kes tertentu.
- **Penilaian keselamatan bahan kimia:** Penilaian Keselamatan Bahan Kimia belum dilakukan.

16 Maklumat lain

Maklumat ini berdasarkan maklumat kami yang terkini. Walau bagaimanapun, ini tidak akan menjadi jaminan bagi apa-apa ciri produk yang khusus dan tidak akan mewujudkan hubungan kontraktual yang sah dari segi undang-undang.

- **Singkatan dan akronim:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association

(Bersambung ke halaman 9)

Helaiian Data Keselamatan
menurut P.U.(A) 310/2013

Tarikh cetak 30.10.2018

Disemak semula pada 30.10.2018

Nama dagang: PROPYLENE OXIDE, ACS REAGENT

(Sambungan halaman 8)

EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Cec. M. Bkr 1: Cecair mudah terbakar – Kategori 1
Toks. Akut 4: Ketoksikan akut – Kategori 4
Toks. Akut 3: Ketoksikan akut – Kategori 3
Kreng. Mata 2: Kerosakan mata atau kerengsaan mata yang serius – Kategori 2
Muta. 1B: Kemutagenan sel germa – Kategori 1B
Kars. 1B: Kekarsinogenan – Kategori 1B
STOT SE 3: Ketoksikan organ sasaran khusus (pendedahan tunggal) – Kategori 3

MY

物質安全資料表

根據 GB/T 16483-2008, GB/T 17519-2013

打印日期 2018.10.30

在 2018.10.30 審核

1 化學品及企業標識

- 產品識別者
- 化學品中文(英文)名稱, 化學品俗名或商品名: PROPYLENE OXIDE, ACS REAGENT
- 商品編號: 20401, 20411, 20412, 20414
- CAS 編號:
75-56-9
- 歐盟編號:
200-879-2
- 歐盟編號:
603-055-00-4
- 相應純物質或者混合物的相關下位用途及禁止用途 無相關詳細資料。
- 原材料的應用/準備工作進行 實驗室化學物
- 安全技術說明書內供應商詳細信息
- 企業名稱:
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- 可獲取更多資料的部門: Product safety department
- 緊急聯繫電話號碼:
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 危險性概述

· 緊急情況概述:

無色的, 液體, 極度易燃液體和蒸氣。吞食有害。皮膚接觸或吸入可致中毒。造成嚴重眼睛刺激。可能造成遺傳性缺陷。可能致癌。可能造成呼吸道刺激。

· GHS危險性類別



火焰

易燃液體 第1級

H224 極度易燃液體和蒸氣



骷髏和交叉骨

急毒性物質(皮膚) 第3級

H311 皮膚接觸有毒

急毒性物質(吸入) 第3級

H331 吸入有毒



健康危險

生殖細胞致突變性物質 第1B級

H340 可能造成遺傳性缺陷

致癌物質 第1B級

H350 可能致癌



(在 2 頁繼續)

物質安全資料表

根據 GB/T 16483-2008, GB/T 17519-2013

打印日期 2018.10.30

在 2018.10.30 審核

化學品中文(英文)名稱, 化學品俗名或商品名: PROPYLENE OXIDE, ACS REAGENT

(在 1 頁繼續)

急毒性物質(吞食) 第4級 H302 吞食有害
 嚴重損傷/刺激眼睛物質 第2級 H319 造成嚴重眼睛刺激
 特定標的器官系統毒性物質(單一暴露) 第3級 H335 可能造成呼吸道刺激

· 標籤因素

· GHS標籤元素 本化學物質根據化學物質分類及標記全球協調制度(GHS)進行了分類及標記。

· 圖示



GHS02 GHS06 GHS08

· 名稱 危險

· 標籤上辨別危險的成份:

甲基 環氧乙烷

· 危險字句

極度易燃液體和蒸氣

吞食有害

皮膚接觸或吸入可致中毒。

造成嚴重眼睛刺激

可能造成遺傳性缺陷

可能致癌

可能造成呼吸道刺激

· 警戒字句

· 預防措施

遠離熱源/火花/明火/熱表面。 - 禁止抽菸。

使用防爆的電氣/通風/照明/設備。

· 事故響應

如皮膚(或頭髮)沾染: 立即移除或脫掉所有沾染的衣物。用水沖洗/淋洗皮膚。

如進入眼睛: 用水小心清洗數分鐘。如帶隱形眼鏡且可方便地取出, 取出隱形眼鏡。繼續清洗。

· 安全貯存

加鎖存放。

· 廢棄處置

按照地方/區域/國家/國際法規處理內容物之廢棄/容器。

· 其他有害性

· PBT(殘留性、生物濃縮性、毒性物質) 及 vPvB(高殘留性、高生物濃縮性物質)評價結果

· PBT(殘留性、生物濃縮性、毒性物質) 不適用的

· vPvB(高殘留性、高生物濃縮性物質): 不適用的

3 成分/組成資訊

· 純品

· CAS號 化學名, 通用名

75-56-9 甲基 環氧乙烷

· 鑒別編號:

· 歐盟編號: 200-879-2

· 歐盟編號: 603-055-00-4

TW

(在 3 頁繼續)

物質安全資料表

根據 GB/T 16483-2008, GB/T 17519-2013

打印日期 2018.10.30

在 2018.10.30 審核

化學品中文(英文)名稱, 化學品俗名或商品名: PROPYLENE OXIDE, ACS REAGENT

(在 2 頁繼續)

4 急救措施

· 應急措施要領

· 總說明:

馬上脫下染有該產品的衣服。

中毒的症狀可能會在幾個小時以後才出現;因此在發生事故之後起碼要有 48 小時的醫療觀察。

只在徹底地脫去了已被汙染的衣服之後才能移走呼吸儀器。

萬一出現了不規則的呼吸或呼吸的阻礙,請為病人提供人工呼吸。

· 吸入:

供給新鮮空氣或氧氣;叫醫生。

萬一病人不清醒時,請讓病人側趟以便移動。

· 皮膚接觸:

馬上用水和肥皂進行徹底的沖洗。

· 眼睛接觸:

張開眼睛在流水下沖洗數分鐘。如果症狀仍然持續,請諮詢醫生。

· 食入:

馬上召喚醫生。

· 給醫生的資料:

· 最重要的急慢性症狀及其影響 無相關詳細資料。

· 需要及時的醫療處理及特別處理的症狀 無相關詳細資料。

5 消防措施

· 滅火方法

· 滅火的方法和滅火劑: 二氧化碳 (CO₂)、滅火粉末或灑水。使用灑水或抗酒精泡沫滅火劑撲滅較大的火種。

· 特別危險性 無相關詳細資料。

· 特殊滅火方法

· 消防人員特殊的防護裝備: 口腔呼吸保護裝置。

6 洩漏應急處理

· 保護措施 帶上保護儀器。讓未受到保護的人們遠離。

· 環境保護措施:

用大量的水進行稀釋。

切勿讓其進入下水道/水面或地下水。

· 密封及淨化方法和材料:

吸收液體粘合原料(沙粒、矽藻土、酸性粘合劑、通用粘合劑、鋸屑)。

根據第 13 條條款棄置受汙染物。

確保有足夠的通風裝置。

· 參照其他部分

有關安全處理的資料請參閱第 7 節。

有關個人保護裝備的資料請參閱第 8 節。

有關棄置的資料請參閱第 13 節。

7 操作處置與儲存

· 操作處置

· 儲存

確保工作間有良好的通風/排氣裝置。

小心打開及處理貯藏器。

防止氣溶膠的形成。

· 有關火災及防止爆炸的資料:

遠離火源 - 切勿吸煙。

防熱。

(在 4 頁繼續)

物質安全資料表

根據 GB/T 16483-2008, GB/T 17519-2013

打印日期 2018.10.30

在 2018.10.30 審核

化學品中文(英文)名稱, 化學品俗名或商品名: PROPYLENE OXIDE, ACS REAGENT

(在 3 頁繼續)

防靜電。
提供呼吸保護裝置。

- **混合危險性等安全儲存條件**
- **儲存:**
- **儲存庫和容器須要達到的要求:** 儲存在陰涼的位置。
- **有關使用一個普通的儲存設施來儲存的資料:** 不需要。
- **有關儲存條件的更多資料:**
- 將容器密封。
- 切勿將貯藏器氣密式封上。
- 儲存密封的貯藏器內,並放在陰涼、幹爽的位置。
- 免受接觸熱力和直接受陽光照射。
- **具體的最終用戶** 無相關詳細資料。

8 接觸控制和個體防護

- **工程控制方法:** 沒有進一步數據,見第 7 項。

- **控制變數**

- **在工作場需要監控的限值成分**

75-56-9 甲基環氧乙烷

PEL (TW) PC-TWA: 48 mg/m³, 20 ppm

OEL (CN) PC-TWA: 5 mg/m³

- **額外的資料:** 制作期間有效的清單將作為基礎來使用。

- **遺漏控制**

- **個人防護設備:**

- **一般保護和衛生措施:**

遠離食品、飲料和飼料。
立即除去所有的不潔的和被汙染的衣服。
在休息之前和工作完畢後請清洗雙手。
分開儲存保護性衣服。
避免和眼睛接觸。
避免和眼睛及皮膚接觸。

- **呼吸系統防護:**

如果曾短暫接觸或在低汙染的情況下,請使用呼吸過濾裝置。如果曾深入或較長時間接觸,請使用獨立的呼吸保護裝置。

- **手防護:**



保護手套

手套的物料必須是不滲透性的,且能抵抗該產品/物質/添加劑。

基於缺乏測試,對於產品/制劑/化學混合物,並不會提供手套材料的建議

選擇手套材料時,請注意材料的滲透時間,滲濾率和降解參數

- **手套材料** 選擇合適的手套不單取決於材料,亦取決於質量特征,以及來自哪一間生產廠家
- **滲入手套材料的時間** 請向勞保手套生產廠家獲取準確的破裂時間並觀察實際的破裂時間

(在 5 頁繼續)

物質安全資料表

根據 GB/T 16483-2008, GB/T 17519-2013

打印日期 2018.10.30

在 2018.10.30 審核

化學品中文(英文)名稱, 化學品俗名或商品名: PROPYLENE OXIDE, ACS REAGENT

· 眼睛防護:

(在 4 頁繼續)



密封的護目鏡

9 理化特性

· 有關基本物理及化學特性的資訊

· 一般說明

· 外觀:

· 形狀: 液體

· 顏色: 無色的

· 氣味: 有特性的

· 嗅覺閾限: 未決定.

· pH值: 未決定.

· 條件的更改

· 熔點: -111.9 °C

· 沸點/初沸點和沸程: 34.3 °C

· 閃點: -37 °C

· 可燃性(固體、氣體): 不適用的

· 點火溫度: 430 °C

· 分解溫度: 未決定.

· 自燃溫度: 未決定.

· 爆炸的危險性: 該產品並非爆炸性的然而有可能形成可爆炸性的空氣/蒸汽混合物

· 爆炸極限:

· 較低: 1.9 Vol %

· 較高: 15 Vol %

· 蒸氣壓 在 20 °C: 590 hPa

· 密度 在 20 °C: 0.8313 g/cm³

· 相對密度: 未決定.

· 蒸氣密度: 未決定.

· 蒸發速率: 未決定.

· 溶解性

· 水 在 20 °C: 405 g/l

· n-辛醇/水分配係數: 未決定.

· 黏性:

· 動態: 未決定.

· 運動學的: 未決定.

· 固體成份: 0.0 %

· 其他資訊: 無相關詳細資料。

TW

(在 6 頁繼續)

物質安全資料表

根據 GB/T 16483-2008, GB/T 17519-2013

打印日期 2018.10.30

在 2018.10.30 審核

化學品中文(英文)名稱, 化學品俗名或商品名: PROPYLENE OXIDE, ACS REAGENT

(在 5 頁繼續)

10 穩定性和反應性

- **反應性** 無相關詳細資料。
- **穩定性**
- **熱分解/要避免的情況:** 如果遵照規格使用則不會分解。
- **有害反應可能性** 未有已知的危險反應。
- **應避免的條件** 無相關詳細資料。
- **不相容的物質:** 無相關詳細資料。
- **危險的分解產物:** 未知有危險的分解產品。

11 毒理學資訊

- **對毒性學影響的資訊**
- **急性毒性:**

- **與分類相關的 LD/ LC50 值:**

75-56-9 甲基環氧乙烷

口腔	LD50	380 mg/kg (rat)
皮膚	LD50	1,245 mg/kg (rabbit)

- **主要的刺激性影響:**
- **皮膚:** 沒有刺激性影響。
- **在眼睛上面:** 刺激的影響。
- **致敏作用:** 沒有已知的敏化影響。
- **對以下組別可能產生影響的資料:**
- **CMR作用 (致癌、導致基因突變、對生殖系統有害)**
生殖細胞致突變性物質 第1B級, 致癌物質 第1B級

12 生態學資訊

- **生態毒性**
- **水生毒性:** 無相關詳細資料。
- **持久性和降解性** 無相關詳細資料。
- **環境系統習性:**
- **潛在的生物累積性** 無相關詳細資料。
- **土壤內移動性** 無相關詳細資料。
- **額外的生態學資料:**
- **總括注解:**
水危害級別 3 (德國規例) (評估): 對水是極其危害的
即使是小量, 不要讓該產品接觸地下水、水道或汗水系統。
即使是極其小量的產品滲入地下也會對飲用水造成危險。
- **PBT(殘留性、生物濃縮性、毒性物質) 及 vPvB(高殘留性、高生物濃縮性物質) 評價結果**
- **PBT(殘留性、生物濃縮性、毒性物質)** 不適用的
- **vPvB(高殘留性、高生物濃縮性物質):** 不適用的
- **其他副作用** 無相關詳細資料。

13 廢棄處置

- **廢棄處置方法**
- **建議:** 不能將該產品和家居垃圾一起丟棄. 不要讓該產品接觸汗水系統。

(在 7 頁繼續)

物質安全資料表

根據 GB/T 16483-2008, GB/T 17519-2013

打印日期 2018.10.30

在 2018.10.30 審核

化學品中文(英文)名稱, 化學品俗名或商品名: PROPYLENE OXIDE, ACS REAGENT

(在 6 頁繼續)

- 受污染的容器和包裝:
- 建議: 必須根據官方的規章來丟棄.
- 建議的清洗劑: 如有必要請使用水及清潔劑進行清潔.

14 運輸資訊

· 聯合國危險貨物編號(UN號)

· ADR, IMDG, IATA UN1280

· UN適當裝船名

· ADR 1280 PROPYLENE OXIDE
· IMDG, IATA PROPYLENE OXIDE

· 運輸危險等級

· ADR, IMDG, IATA



· 級別

3 易燃液體

· 標籤

3

· 包裝組別

· ADR, IMDG, IATA I

· 危害環境:

不適用的

· 用戶特別預防措施

警告: 易燃液體

· 危險編碼:

339

· EMS 號碼:

3-06

· Stowage Category

E

· Stowage Code

SW2 Clear of living quarters.

· MARPOL73/78(針對船舶引起的海洋污染預防協約)
附件書2及根據IBC Code(國際裝船貨物編碼)的大量
運送

不適用的

· 運輸/額外的資料:

· ADR

· Excepted quantities (EQ)

Code: E3

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 300 ml

· IMDG

· Limited quantities (LQ)

0

· Excepted quantities (EQ)

Code: E3

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 300 ml

· UN "標準規定":

UN 1280 PROPYLENE OXIDE, 3, I

TW

(在 8 頁繼續)

物質安全資料表

根據 GB/T 16483-2008, GB/T 17519-2013

打印日期 2018.10.30

在 2018.10.30 審核

化學品中文(英文)名稱, 化學品俗名或商品名: PROPYLENE OXIDE, ACS REAGENT

(在 7 頁繼續)

15 法規資訊

· 對相應純物質或者混合物的安全、保健及環境法規/法律

· 中國現有化學物質名錄

有列出物質.

· TCSCA

· 列管編號

沒有列出物質.

· 毒性分類

沒有列出物質.

· 管制濃度 (w/w %)

沒有列出物質.

· 大量運作基準 (公斤)

沒有列出物質.

· TCSI - Taiwan Chemical Substance Inventory

有列出物質.

· GHS 標籤元素 本化學物質根據化學物質分類及標記全球協調制度(GHS)進行了分類及標記。

· 圖示



GHS02 GHS06 GHS08

· 名稱 危險

· 標籤上辨別危險的成份:

甲基 環氧乙烷

· 危險字句

極度易燃液體和蒸氣

吞食有害

皮膚接觸或吸入可致中毒.

造成嚴重眼睛刺激

可能造成遺傳性缺陷

可能致癌

可能造成呼吸道刺激

· 警戒字句

· 預防措施

遠離熱源/火花/明火/熱表面。 - 禁止抽菸。

使用防爆的電氣/通風/照明/設備。

· 事故響應

如皮膚(或頭髮)沾染: 立即移除或脫掉所有沾染的衣物。用水沖洗/淋洗皮膚。

如進入眼睛: 用水小心清洗數分鐘。如帶隱形眼鏡且可方便地取出, 取出隱形眼鏡。繼續清洗。

· 安全貯存

加鎖存放。

· 廢棄處置

按照地方/區域/國家/國際法規處理內容物之廢棄/容器。

· 國家的規章:

· 有關使用限制的資料: 禁止員工接觸該危險物料. 在某些情況可由當局作出例外決定.

(在 9 頁繼續)

物質安全資料表

根據 GB/T 16483-2008, GB/T 17519-2013

打印日期 2018.10.30

在 2018.10.30 審核

化學品中文(英文)名稱, 化學品俗名或商品名 : PROPYLENE OXIDE, ACS REAGENT

· 化學物質安全性評價: 尚未進行化學物質安全性評價

(在 8 頁繼續)

16 其他資訊

該資料是基於我們目前的知識。然而,這並不構成對任何特定產品特性的擔保並且不建立一個法律上有效的合同關係。

· 縮寫:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: 持久性生物累積性有毒物質

vPvB: very Persistent and very Bioaccumulative

易燃液體 第1級: Flammable liquids – Category 1

急毒性物質(吞食) 第4級: Acute toxicity – Category 4

急毒性物質(皮膚) 第3級: Acute toxicity – Category 3

嚴重損傷/刺激眼睛物質 第2級: Serious eye damage/eye irritation – Category 2

生殖細胞致突變性物質 第1B級: Germ cell mutagenicity – Category 1B

致癌物質 第1B級: Carcinogenicity – Category 1B

特定標的器官系統毒性物質(單一暴露) 第3級: Specific target organ toxicity (single exposure) – Category 3

TW

Sikkerhetsdatablad
iflg. forordning (EF) nr. 1907/2006, Artikkel 31

Trykkdato: 30.10.2018

revidert den: 30.10.2018

Avsnitt 1: Identifikasjon av stoffet/stoffblandingen og av selskapet/foretaket

- **1.1 Produktidentifikator**
- **Handelsnavn:** PROPYLENE OXIDE, ACS REAGENT
- **Artikkelnummer:** 20401, 20411, 20412, 20414
- **CAS-nummer:**
75-56-9
- **EC nummer:**
200-879-2
- **EF-nummer:**
603-055-00-4
- **1.2 Relevante identifiserte bruksområder for stoffet eller stoffblandingen og bruk som frarådes**
Ikke noe mer relevant informasjon tilgjengelig.
- **Bruk av stoffet/ tilberedning** laboratoriekjemikalier
- **1.3 Opplysninger om leverandøren av sikkerhetsdatabladet**
- **Produsent/leverandør:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Avdeling for nærmere informasjon:** Product safety department
- **1.4 Nødtelefonnummer**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

Avsnitt 2: Fareidentifikasjon

- **2.1 Klassifisering av stoffet eller stoffblandingen**
- **Klassifisering i henhold til EC-forskrift nr.1272/2008**



GHS02 Flamme

Flam. Liq. 1 H224 Ekstremt brannfarlig væske og damp.



GHS06 Dødningehode med korslagte knokler

Acute Tox. 3 H311 Giftig ved hudkontakt.

Acute Tox. 3 H331 Giftig ved innånding.



GHS08 Helsefare

Muta. 1B H340 Kan gi genetiske skader.

Carc. 1B H350 Kan forårsake kreft.



GHS07

Acute Tox. 4 H302 Farlig ved svelging.

(fortsatt på side 2)

Sikkerhetsdatablad

iflg. forordning (EF) nr. 1907/2006, Artikkel 31

Trykkdato: 30.10.2018

revidert den: 30.10.2018

Handelsnavn: PROPYLENE OXIDE, ACS REAGENT

(fortsatt fra side 1)

Eye Irrit. 2 H319 Gir alvorlig øyeirritasjon.
STOT SE 3 H335 Kan forårsake irritasjon av luftveiene.

- **2.2 Merkingselementer**
- **Merking iht. bestemmelse (EC) Nr. 1272/2008**
Substansen er klassifisert og merket i henhold til CLP-forordningen.
- **Farepiktogrammer**



GHS02 GHS06 GHS08

- **Varselord Fare**
- **Farebestemmende komponenter ved etikettering:**
propylenoksid
- **Faresetninger**
 - H224 Ekstremt brannfarlig væske og damp.
 - H302 Farlig ved svelging.
 - H311+H331 Giftig ved hudkontakt eller innånding.
 - H319 Gir alvorlig øyeirritasjon.
 - H340 Kan gi genetiske skader.
 - H350 Kan forårsake kreft.
 - H335 Kan forårsake irritasjon av luftveiene.
- **Sikkerhetssetninger**
 - P210 Holdes vekk fra varme, varme overflater, gnister, åpen ild og andre antenningsskilder. Røyking forbudt.
 - P241 Bruk elektrisk materiell/ventilasjonsmateriell/belysningsmateriell som er eksplosjonssikkert.
 - P303+P361+P353 VED HUDKONTAKT (eller håret): Tilsølte klær må fjernes straks. Skyll/dusj huden med vann.
 - P305+P351+P338 VED KONTAKT MED ØYNENE: Skyll forsiktig med vann i flere minutter. Fjern eventuelle kontaktlinser dersom dette enkelt lar seg gjøre. Fortsett skyllingen.
 - P405 Oppbevares innelåst.
 - P501 Innholdet / emballasjen skal avhendes i henhold til de lokale / regionale / nasjonale / internasjonale forskrifter.
- **2.3 Andre farer**
- **Resultater av PBT- og vPvB-vurdering**
- **PBT:** Ikke brukbar.
- **vPvB:** Ikke brukbar.

Avsnitt 3: Sammensetning/opplysninger om bestanddeler

- **3.1 Kjemisk karakterisering: Stoffer**
- **CAS-nr. betegnelse**
75-56-9 propylenoksid
- **Identifikasjonsnummer(numre)**
- **EC nummer:** 200-879-2
- **EF-nummer:** 603-055-00-4

NO

(fortsatt på side 3)

Sikkerhetsdatablad

iflg. forordning (EF) nr. 1907/2006, Artikkel 31

Trykkdato: 30.10.2018

revidert den: 30.10.2018

Handelsnavn: PROPYLENE OXIDE, ACS REAGENT

(fortsatt fra side 2)

Avsnitt 4: Førstehjelpstiltak

· 4.1 Beskrivelse av førstehjelpstiltak

· Generelle informasjoner:

Klær som er tilsølt med produktet må fjernes omgående.

Forgiftningssymptomer kan også oppstå etter mange timer. Personer må derfor ha legetilsyn i minst 48 timer etter en ulykke.

Åndedrettsbeskyttelse må først fjernes etter at tilsølte klær er fjernet.

Kunstig åndedrett ved uregelmessig åndedrett eller åndedrettsstillstand.

· Etter innånding:

Tilførsel av frisk luft eller surstoff; søk legehjelp.

Ved bevisstløshet lagring og transport i stabil sidestilling.

· Etter hudkontakt: Vask straks med vann og sepe og skyll godt etterpå.

· Etter øyekontakt:

Skyll øynene med åpne øyenlokk i flere minutter under rennende vann. Ved fortsatt besvær tilkall lege.

· Etter svelging: Søk lege straks.

· 4.2 De viktigste symptomene og virkningene, både akutte og forsinkede

Ikke noe mer relevant informasjon tilgjengelig.

· 4.3 Angivelse av om umiddelbar legehjelp og spesialbehandling er nødvendig

Ikke noe mer relevant informasjon tilgjengelig.

Avsnitt 5: Brannsløkkingstiltak

· 5.1 Sløkkingsmidler

· Egnede slukningsmidler:

CO₂, slukningspulver eller vann i spredt stråle. Større branner bekjempes med vann i spredt stråle eller med skum som er motstandsdyktig mot alkohol.

· 5.2 Særlige farer knyttet til stoffet eller stoffblandingen

Ikke noe mer relevant informasjon tilgjengelig.

· 5.3 Råd til brannmannskaper

· Spesielt verneutstyr: Ta på egnet åndedrettsbeskyttelse.

Avsnitt 6: Tiltak ved utilsiktede utslipp

· 6.1 Personlige forsiktighetsregler, personlig verneutstyr og nødrutiner

Ta på beskyttelsesdrakt. Hold ubeskyttede personer borte.

· 6.2 Forsiktighetsregler med hensyn til miljø

Fortynn med rikelig med vann.

La ikke produktet komme ned i kloakk/overflatevann/grunnvann.

· 6.3 Metoder og materialer for oppsamling og rensing

Ta opp stoffet med væskebindende materiale (sand, kiselgur, syrebindemiddel, universalbindemiddel, sagflis).

Bortskaff kontaminert materiale som avfall i.h.t. punkt 13.

Sørg for tilstrekkelig ventilasjon.

· 6.4 Henvisning til andre avsnitt

Informasjoner om sikker håndtering, se kapittel 7.

Informasjoner om personlig beskyttelsesutstyr, se kapittel 8.

Informasjoner om bortskaffelse/deponering, se kapittel 13.

Avsnitt 7: Håndtering og lagring

· 7.1 Forsiktighetsregler for sikker håndtering

Sørg for god ventilasjon/avsugning på arbeidsplassen.

(fortsatt på side 4)

Sikkerhetsdatablad

iflg. forordning (EF) nr. 1907/2006, Artikkel 31

Trykkgdato: 30.10.2018

revidert den: 30.10.2018

Handelsnavn: PROPYLENE OXIDE, ACS REAGENT

(fortsatt fra side 3)

Beholderne må åpnes og håndteres forsiktig.

Unngå aerosoldannelse.

· **Henvisninger om brann- og eksplosjonsvern:**

Bruk av åpen ild forbudt - røyking forbudt.

Beskytt mot varme.

Gjør tiltak mot elektrostatisk oppladning.

Hold åndedrettsbeskyttelse i beredskap.

· **7.2 Vilkår for sikker lagring, herunder eventuelle uforenligheter**

· **Lagring:**

· **Krav til lagerrom og beholdere:** Lagres på et kjølig sted.

· **Informasjoner om felles lagring:** Ikke nødvendig.

· **Ytterligere informasjoner om lagervilkårene:**

Hold beholderne tett tillukket.

Ikke steng beholderne gasstett.

Lagres kjølig og tørt i godt tillukkede beholdere.

Beskyttes mot varme og direkte solpåvirkning.

· **7.3 Særlig(e) sluttanvendelse(r)** Ikke noe mer relevant informasjon tilgjengelig.

Avsnitt 8: Eksponeringskontroll / personlig verneutstyr

· **Ytterligere informasjoner om utforming av tekniske anlegg:** Ingen ytterligere informasjoner, se punkt 7.

· **8.1 Kontrollparametere**

· **Komponenter med grenseverdier for arbeidsplass som må overholdes:**

75-56-9 propylenoksid

AG	Langtidsverdi: 2 mg/m ³ , 1 ppm
H A K	

· **Ytterligere informasjoner:** Basis: listene som var gyldige ved oppstillingen.

· **8.2 Eksponeringskontroll**

· **Personlig verneutstyr:**

· **Generelle verne- og hygienetiltak:**

Holdes adskilt fra næringsmidler, drikkevarer og førestoffer.

Fjern omgående forurensede, gjennomvåtede klær.

Vask hendene før arbeidspauser og ved arbeidets slutt.

Beskyttelsesklær må oppbevares adskilt.

Unngå berøring med øynene.

Unngå berøring med øyne og hud.

· **Åndedrettsvern:**

Ved korttidig eller liten belastning åndedrettsfilterapparat; ved intensiv eller lengre utsetting: bruk omluft-uavhengig åndedrettsbeskyttelsesapparat.

· **Håndvern:**



Beskyttelseshansker

Hanskematerialet må være ugjennomtrengelig og bestandig overfor produktet /stoffet /blandingen.

På grunn av manglende tester kan det ikke gis noen anbefaling om hanskemateriale for produktet / tilberedningsprosessen/kjemikalieblanding.

Hanskematerialet velges under hensyntagen til holdbarhetstid, gjennomtrengelighet og degradering.

(fortsatt på side 5)

Sikkerhetsdatablad

iflg. forordning (EF) nr. 1907/2006, Artikkel 31

Trykkdato: 30.10.2018

revidert den: 30.10.2018

Handelsnavn: PROPYLENE OXIDE, ACS REAGENT

(fortsatt fra side 4)

- **hanskemateriale**

Valget av egnet hanske er ikke bare avhengig av materiale, men også av andre kvalitetskjenne­tegn og er forskjellig fra produsent til produsent.

- **gjennomtrengingstid for hanskemateriale**

Den nøyaktige holdbarhetstiden må bringes på det rene hos hanskeprodusenten og overholdes.

- **Øyevern:**



Tettsittende vernebrille

Avsnitt 9: Fysiske og kjemiske egenskaper

- **9.1 Opplysninger om grunnleggende fysiske og kjemiske egenskaper**

- **alminnelige opplysninger**

- **Utseende:**

· Form:	Væske
· Farge:	Fargeløs
· Lukt:	Karakteristisk
· Lukterskel:	Ikke bestemt.

- **pH-verdi:** Ikke bestemt.

- **Tilstandsending**

· Smeltepunkt/frysepunkt:	-111,9 °C
· Startkokepunkt og kokeområde:	34,3 °C

- **Flammepunkt:** -37 °C

- **Antennelighet (fast stoff, gass):** Ikke brukbar.

- **Antennelsestemperatur:** 430 °C

- **Nedbrytningstemperatur:** Ikke bestemt.

- **Selvantennelsestemperatur:** Ikke bestemt.

- **Eksplorative egenskaper:** Produktet er ikke eksplosjonsfarlig. Dannelse av eksplosjonsfarlige damp-/luftblandinger er dog mulig.

- **Ekspljosjonsgrenser:**

· Nedre:	1,9 Vol %
· Øvre	15 Vol %

- **Damptrykk ved 20 °C:** 590 hPa

- **Tetthet ved 20 °C:** 0,8313 g/cm³

- **Relativ tetthet:** Ikke bestemt.

- **Damp­tetthet:** Ikke bestemt.

- **Fordampingshastighet:** Ikke bestemt.

- **Løslighet i / blandbarhet med vann ved 20 °C:** 405 g/l

- **Fordelingskoeffisient; n-oktanol/vann:** Ikke bestemt.

- **Viskositet:**

- **Dynamisk:** Ikke bestemt.

(fortsatt på side 6)

Sikkerhetsdatablad

iflg. forordning (EF) nr. 1907/2006, Artikkel 31

Trykkdato: 30.10.2018

revidert den: 30.10.2018

Handelsnavn: PROPYLENE OXIDE, ACS REAGENT

(fortsatt fra side 5)

Kinematisk:	Ikke bestemt.
· Løsningsmiddelandel: VOC (EF)	0,00 %
Andel faste stoffer:	0,0 %
· 9.2 Andre opplysninger	Ikke noe mer relevant informasjon tilgjengelig.

Avsnitt 10: Stabilitet og reaktivitet

- **10.1 Reaktivitet** Ikke noe mer relevant informasjon tilgjengelig.
- **10.2 Kjemisk stabilitet**
- **Termisk spaltning / vilkår som må unngås:** Ingen spaltning ved formålsriktig bruk.
- **10.3 Risiko for farlige reaksjoner** Det kjennes ingen farlige reaksjoner.
- **10.4 Forhold som skal unngås** Ikke noe mer relevant informasjon tilgjengelig.
- **10.5 Uforenlige materialer** Ikke noe mer relevant informasjon tilgjengelig.
- **10.6 Farlige nedbrytingsprodukter** Ingen farlige spaltningsprodukter kjente.

Avsnitt 11: Toksikologiske opplysninger

- **11.1 Opplysninger om toksikologiske virkninger**

- **Akutt giftighet**

Farlig ved svelging.

Giftig ved hudkontakt eller innånding.

- **Klassifiseringsrelevante LD/LC50-verdier:**

75-56-9 propylenoksid

Oral	LD50	380 mg/kg (rat)
Dermal	LD50	1.245 mg/kg (rabbitt)

- **Primær irritasjonsvirkning:**
- **Hudetsing/hudirritasjon** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **Alvorlig øyeskade/øyeirritasjon**
Gir alvorlig øyeirritasjon.
- **Sensibilisering ved innånding eller hudkontakt** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **Informasjon om følgende grupper med potensielle virkninger:**
- **CMR-virkninger (kreftfremkallende virkninger, arvestoffskadelige og reproduksjonsskadelige virkninger)**
- **Arvestoffskadelig virkning på kjønnsceller**
Kan gi genetiske skader.
- **Kreftfremkallende egenskap**
Kan forårsake kreft.
- **Reproduksjonstoksisitet** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **STOT – enkelteksponering**
Kan forårsake irritasjon av luftveiene.
- **STOT – gjentatt eksponering** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **Aspirasjonsfare** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.

Avsnitt 12: Økologiske opplysninger

- **12.1 Giftighet**
- **Akvatisk toksisitet:** Ikke noe mer relevant informasjon tilgjengelig.
- **12.2 Persistens og nedbrytbarhet** Ikke noe mer relevant informasjon tilgjengelig.

(fortsatt på side 7)

Sikkerhetsdatablad

iflg. forordning (EF) nr. 1907/2006, Artikkel 31

Trykkdato: 30.10.2018

revidert den: 30.10.2018

Handelsnavn: PROPYLENE OXIDE, ACS REAGENT


(fortsatt fra side 6)

- **12.3 Bioakkumuleringsevne** Ikke noe mer relevant informasjon tilgjengelig.
- **12.4 Mobilitet i jord** Ikke noe mer relevant informasjon tilgjengelig.
- **Ytterligere økologiske informasjoner:**
- **Generelle informasjoner:**
Vannfareklasse 3 (D) (listeklassifisering): meget farlig for vann
Ikke la stoffet komme ned i grunnvannet, i vassdrag eller i kloakker, heller ikke i små mengder.
Fare for drikkevann allerede ved utstrømning av meget små mengder i marken.
- **12.5 Resultater av PBT- og vPvB-vurdering**
- **PBT:** Ikke brukbar.
- **vPvB:** Ikke brukbar.
- **12.6 Andre skadevirkninger** Ikke noe mer relevant informasjon tilgjengelig.

Avsnitt 13: Sluttbehandling

- **13.1 Avfallsbehandlingsmetoder**
- **Anbefaling:** Må ikke bortskaftes sammen med husholdningsavfall. Må ikke komme ned i kloakk.
- **Ikke rengjort emballasje:**
- **Anbefaling:** Deponering i henhold til myndighetenes forskrifter.
- **Anbefalt rengjøringsmiddel:** Vann, eventuelt med tilsetning av rengjøringsmidler.

Avsnitt 14: Transportopplysninger

- | | |
|---|--|
| <ul style="list-style-type: none"> · 14.1 FN-nummer · ADR, IMDG, IATA | UN1280 |
| <ul style="list-style-type: none"> · 14.2 FN-forsendelsesnavn · ADR · IMDG, IATA | 1280 PROPYLENOKSID
PROPYLENE OXIDE |
| <ul style="list-style-type: none"> · 14.3 Transportfareklasse(r) · ADR, IMDG, IATA | 3 Brannfarlige væsker
3 |
|  | |
| <ul style="list-style-type: none"> · klasse · Fareseddel | 3 Brannfarlige væsker
3 |
| <ul style="list-style-type: none"> · 14.4 Emballasjegruppe · ADR, IMDG, IATA | I |
| <ul style="list-style-type: none"> · 14.5 Miljøfarer | Ikke brukbar. |
| <ul style="list-style-type: none"> · 14.6 Særlige forsiktighetsregler ved bruk · Kemler-tall: · EMS-nummer: · Stowage Category · Stowage Code | Advarsel: Brannfarlige væsker
339
3-06
E
SW2 Clear of living quarters. |
| <ul style="list-style-type: none"> · 14.7 Bulktransport i henhold til vedlegg II til MARPOL 73/78 og IBC-regelverket | Ikke brukbar. |

(fortsatt på side 8)

NO

Sikkerhetsdatablad

iflg. forordning (EF) nr. 1907/2006, Artikkel 31

Trykdato: 30.10.2018

revidert den: 30.10.2018

Handelsnavn: PROPYLENE OXIDE, ACS REAGENT

(fortsatt fra side 7)

· **Transport/ytterligere informasjoner:**

· **ADR**

· **Begrenset mengde (LQ)** 0
 · **Unntatte mengder (EQ)** Kode: E3
 Maksimal nettovekt per inneremballasje: 30 ml
 Maksimal nettovekt per ytteremballasje: 300 ml

· **Transportkategori** 1
 · **Tunnel restriksjonskode** D/E

· **IMDG**

· **Limited quantities (LQ)** 0
 · **Excepted quantities (EQ)** Code: E3
 Maximum net quantity per inner packaging: 30 ml
 Maximum net quantity per outer packaging: 300 ml

· **UN "Model Regulation":** UN 1280 PROPYLENOKSID, 3, I

Avsnitt 15: Opplysninger om regelverk

· **15.1 Særlige bestemmelser / særskilt lovgivning om sikkerhet, helse og miljø for stoffet eller stoffblandingen**

· **Nasjonale forskrifter:**

· **Informasjoner om arbeidsinnskrenkning:**

Arbeidstagere må ikke utsettes for dette farlige stoffet. I enkelte tilfeller kan myndighetene tillate unntak.

· **Andre forskrifter, restriksjoner og forbudsforordninger**

· **Stoffer som gir stor grunn til bekymring iflg. REACH, artikkel 57**

75-56-9 propylenoksid

· **15.2 Vurdering av kjemikaliesikkerhet** En kjemisk sikkerhetsvurdering er ikke utført.

Avsnitt 16: Andre opplysninger

Opplysningene er basert på vårt kjennskap i dag. De utgjør dog ingen forsikring om produktegenskaper og er ikke grunnlag for noe kontraktsmessig rettsforhold.

· **Forkortelser og akronymer:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 1: Brannfarlige væsker – Kategori 1

Acute Tox. 4: Akutt giftighet – Kategori 4

Acute Tox. 3: Akutt giftighet – Kategori 3

Eye Irrit. 2: Alvorlig øyeskade/øyeirritasjon – Kategori 2

Muta. 1B: Skade på arvestoffet i kjønnsceller – Kategori 1B

Carc. 1B: Kreftframkallende egenskaper – Kategori 1B

STOT/SE 3: Giftvirkning på bestemte organer (enkelteksponeering) – Kategori 3

Ficha de dados de segurança
em conformidade com 1907/2006/CE, Artigo 31º

data da impressão 30.10.2018

Revisão: 30.10.2018

SECÇÃO 1: Identificação da substância/mistura e da sociedade/empresa

- **1.1 Identificador do produto**
- **Nome comercial:** PROPYLENE OXIDE, ACS REAGENT
- **Código do produto:** 20401, 20411, 20412, 20414
- **Nº CAS:**
75-56-9
- **Número CE:**
200-879-2
- **Número de índice:**
603-055-00-4
- **1.2 Utilizações identificadas relevantes da substância ou mistura e utilizações desaconselhadas**
Não existe mais nenhuma informação relevante disponível.
- **Utilização da substância / da preparação** Químicos de laboratório
- **1.3 Identificação do fornecedor da ficha de dados de segurança**
- **Fabricante/fornecedor:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Entidade para obtenção de informações adicionais:** Product safety department
- **1.4 Número de telefone de emergência:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

SECÇÃO 2: Identificação dos perigos

- **2.1 Classificação da substância ou mistura**
- **Classificação em conformidade com o Regulamento (CE) n.º 1272/2008**



GHS02 chama

Flam. Liq. 1 H224 Líquido e vapor extremamente inflamáveis.



GHS06 caveira sobre tibias cruzadas

Acute Tox. 3 H311 Tóxico em contacto com a pele.

Acute Tox. 3 H331 Tóxico por inalação.



GHS08 perigo para a saúde

Muta. 1B H340 Pode provocar anomalias genéticas.

Carc. 1B H350 Pode provocar cancro.



GHS07

Acute Tox. 4 H302 Nocivo por ingestão.

(continuação na página 2)

Ficha de dados de segurança

em conformidade com 1907/2006/CE, Artigo 31º

data da impressão 30.10.2018

Revisão: 30.10.2018

Nome comercial: PROPYLENE OXIDE, ACS REAGENT

(continuação da página 1)

Eye Irrit. 2 H319 Provoca irritação ocular grave.

STOT SE 3 H335 Pode provocar irritação das vias respiratórias.

· 2.2 Elementos do rótulo

· Rotulagem em conformidade com o Regulamento (CE) n.º 1272/2008

A substância classificou-se e está etiquetado em conformidade com o regulamento CLP.

· Pictogramas de perigo



GHS02 GHS06 GHS08

· Palavra-sinal Perigo

· Componentes determinantes para os perigos constantes do rótulo:

óxido de propileno

· Advertências de perigo

H224 Líquido e vapor extremamente inflamáveis.

H302 Nocivo por ingestão.

H311+H331 Tóxico em contacto com a pele ou por inalação.

H319 Provoca irritação ocular grave.

H340 Pode provocar anomalias genéticas.

H350 Pode provocar cancro.

H335 Pode provocar irritação das vias respiratórias.

· Recomendações de prudência

P210 Manter afastado do calor, superfícies quentes, faíscas, chamas abertas e outras fontes de ignição. Não fumar.

P241 Utilizar equipamento eléctrico/de ventilação/de iluminação/à prova de explosão.

P303+P361+P353 SE ENTRAR EM CONTACTO COM A PELE (ou o cabelo): retirar imediatamente toda a roupa contaminada. Enxaguar a pele com água/tomar um duche.

P305+P351+P338 SE ENTRAR EM CONTACTO COM OS OLHOS: enxaguar cuidadosamente com água durante vários minutos. Se usar lentes de contacto, retire-as, se tal lhe for possível. Continuar a enxaguar.

P405 Armazenar em local fechado à chave.

P501 Eliminar o conteúdo/recipiente de acordo com a legislação local/regional/nacional/internacional.

· 2.3 Outros perigos

· Resultados da avaliação PBT e mPmB

· **PBT:** Não aplicável.

· **mPmB:** Não aplicável.

SECÇÃO 3: Composição/informação sobre os componentes

· 3.1 Caracterização química: Substâncias

· Designação CAS n.º

75-56-9 óxido de propileno

· Número(s) de identificação

· **Número CE:** 200-879-2

· **Número de índice:** 603-055-00-4

(continuação na página 3)

Ficha de dados de segurança
em conformidade com 1907/2006/CE, Artigo 31º

data da impressão 30.10.2018

Revisão: 30.10.2018

Nome comercial: **PROPYLENE OXIDE, ACS REAGENT**

(continuação da página 2)

· SVHC

75-56-9 óxido de propileno

SECÇÃO 4: Medidas de primeiros socorros· **4.1 Descrição das medidas de primeiros socorros**· **Indicações gerais:***O vestuário contaminado com substâncias perigosas deve ser imediatamente removido.**Os sintomas de envenenamento podem surgir apenas após várias horas, por isso é necessária vigilância médica pelo menos 48 horas após o acidente.**Tirar a protecção respiratória apenas depois de ter sido despido o vestuário contaminado.**Em caso de respiração irregular ou paragem da respiração, executar respiração artificial.*· **Em caso de inalação:***Ar fresco ou entrada de oxigénio; solicitar auxílio médico.**Se a vítima estiver inconsciente, posicioná-la e transportá-la com estabilidade, deitada lateralmente.*· **Em caso de contacto com a pele:** Lavar imediatamente com água e sabão e enxaguar abundantemente.· **Em caso de contacto com os olhos:***Enxaguar os olhos durante alguns minutos sob água corrente, mantendo as pálpebras abertas. Em caso de persistência dos sintomas, consultar o médico.*· **Em caso de ingestão:** Consultar imediatamente o médico· **4.2 Sintomas e efeitos mais importantes, tanto agudos como retardados***Não existe mais nenhuma informação relevante disponível.*· **4.3 Indicações sobre cuidados médicos urgentes e tratamentos especiais necessários***Não existe mais nenhuma informação relevante disponível.***SECÇÃO 5: Medidas de combate a incêndios**· **5.1 Meios de extinção**· **Meios adequados de extinção:***CO2, pó extintor ou jacto de água. Um incêndio de grandes dimensões deve ser combatido com jacto de água ou espuma resistente ao álcool.*· **5.2 Perigos especiais decorrentes da substância ou mistura***Não existe mais nenhuma informação relevante disponível.*· **5.3 Recomendações para o pessoal de combate a incêndios**· **Equipamento especial de protecção:** Colocar máscara de respiração.**SECÇÃO 6: Medidas a tomar em caso de fugas acidentais**· **6.1 Precauções individuais, equipamento de protecção e procedimentos de emergência***Usar equipamento de protecção. Manter as pessoas desprotegidas afastadas.*· **6.2 Precauções a nível ambiental:***Diluir em bastante água.**Evitar que penetre na canalização / águas superficiais / águas subterrâneas.*· **6.3 Métodos e materiais de confinamento e limpeza:***Recolher com produtos que absorvam líquidos (areia, seixos, absorventes universais, serradura).**Eliminar residualmente as substâncias contaminadas como um resíduo segundo o Ponto 13.**Assegurar uma ventilação adequada.*· **6.4 Remissão para outras secções***Para informações sobre uma manipulação segura, ver o capítulo 7.**Para informações referentes ao equipamento de protecção individual, ver o capítulo 8.*

(continuação na página 4)

Ficha de dados de segurança
em conformidade com 1907/2006/CE, Artigo 31º

data da impressão 30.10.2018

Revisão: 30.10.2018

Nome comercial: PROPYLENE OXIDE, ACS REAGENT

(continuação da página 3)

Para informações referentes à eliminação residual, ver o capítulo 13.

SECÇÃO 7: Manuseamento e armazenagem

- **7.1 Precauções para um manuseamento seguro**
Assegurar uma boa ventilação / exaustão no local de trabalho.
Abrir e manusear o recipiente com cuidado
Evitar a formação de aerossóis.
- **Precauções para prevenir incêndios e explosões:**
Manter afastado de fontes de ignição - não fumar.
Proteger do calor.
Proteger contra descargas electrostáticas.
Manter uma máscara de respiração sempre preparada.
- **7.2 Condições de armazenagem segura, incluindo eventuais incompatibilidades**
- **Armazenagem:**
- **Requisitos para espaços ou contentores para armazenagem:** Armazenar num local fresco.
- **Avisos para armazenagem conjunta:** Não necessário.
- **Outros avisos sobre as condições de armazenagem:**
Manter o recipiente hermeticamente fechado.
Não manter o recipiente hermeticamente fechado para o gás.
Armazenar em recipientes bem fechados, em local fresco e seco.
Proteger do calor e da radiação directa do sol.
- **7.3 Utilização(ões) final(is) específica(s)** Não existe mais nenhuma informação relevante disponível.

SECÇÃO 8: Controlo da exposição/Protecção individual

- **Indicações adicionais para concepção de instalações técnicas:** Não existem outras informações, ver ponto 7.

- **8.1 Parâmetros de controlo**

- **Componentes cujo valor do limite de exposição no local de trabalho deve ser monitorizado:**

75-56-9 óxido de propileno

VLE	Valor para exposição longa: 2 ppm SC; A3; Irritação ocular, do TRS
-----	---

- **Indicações adicionais:** Foram utilizadas como base as listas válidas à data da elaboração.
- **8.2 Controlo da exposição**
- **Equipamento de protecção individual:**
- **Medidas gerais de protecção e higiene:**
Manter afastado de alimentos, bebidas e forragens.
Despir imediatamente a roupa contaminada e embebida.
Lavar as mãos antes das pausas e no fim do trabalho.
Guardar o vestuário de protecção separadamente.
Evitar o contacto com os olhos.
Evitar o contacto com os olhos e com a pele.
- **Protecção respiratória:**
Utilizar uma máscara respiratória se a exposição for reduzida ou durante um curto espaço de tempo; se esta for mais prolongada ou mais intensa, utilizar uma máscara respiratória independente do ar ambiente.

(continuação na página 5)

Ficha de dados de segurança
em conformidade com 1907/2006/CE, Artigo 31°

data da impressão 30.10.2018

Revisão: 30.10.2018

Nome comercial: **PROPYLENE OXIDE, ACS REAGENT**

(continuação da página 4)

· **Protecção das mãos:**

Luvas de protecção

O material das luvas tem de ser impermeável e resistente ao produto / à substância / preparação.

Uma vez que não foram realizados testes nesta área, não podemos recomendar um determinado tipo de material para as luvas que seja adequado para o produto / a preparação / a mistura de químicos.

Escolher o material das luvas tendo em consideração a durabilidade, a permeabilidade e a degradação.

· **Material das luvas**

A escolha das luvas mais adequadas não depende apenas do material, mas também de outras características qualitativas e varia de fabricante para fabricante.

· **Tempo de penetração no material das luvas**

Deve informar-se sobre a validade exacta das suas luvas junto do fabricante e respeitá-la.

· **Protecção dos olhos:**

Óculos de protecção totalmente fechados

SECÇÃO 9: Propriedades físico-químicas

· **9.1 Informações sobre propriedades físicas e químicas de base**· **Informações gerais**· **Aspetto:**

· Forma:	Líquido
· Cor:	Incolor
· Odor:	Característico
· Limiar olfactivo:	Não classificado.

· **valor pH:** Não classificado.

· **Mudança do estado:**

· Ponto de fusão/ponto de congelação:	-111,9 °C
· Ponto de ebulição inicial e intervalo de ebulição:	34,3 °C

· **Ponto de inflamação:** -37 °C

· **Inflamabilidade (sólido, gás):** Não aplicável.

· **Temperatura de ignição:** 430 °C

· **Temperatura de decomposição:** Não classificado.

· **Temperatura de autoignição:** Não classificado.

· **Propriedades explosivas:** O produto não é explosivo. Contudo, é possível a formação de misturas explosivas ar/vapor.

· **Limites de explosão:**

· Inferior:	1,9 Vol %
· Superior:	15 Vol %

· **Pressão de vapor em 20 °C:** 590 hPa

· **Densidade em 20 °C:** 0,8313 g/cm³

· **Densidade relativa:** Não classificado.

(continuação na página 6)

Ficha de dados de segurança
em conformidade com 1907/2006/CE, Artigo 31°

data da impressão 30.10.2018

Revisão: 30.10.2018

Nome comercial: **PROPYLENE OXIDE, ACS REAGENT**

(continuação da página 5)

· Densidade de vapor	Não classificado.
· Taxa de evaporação:	Não classificado.
· Solubilidade em / miscibilidade com água em 20 °C:	405 g/l
· Coefficiente de partição: n-octanol/água	Não classificado.
· Viscosidade:	
Dinâmico:	Não classificado.
Cinemático:	Não classificado.
· Percentagem de solvente:	
VOC (UE)	0,00 %
Percentagem de substâncias sólidas:	0,0 %
· 9.2 Outras informações	Não existe mais nenhuma informação relevante disponível.

SECÇÃO 10: Estabilidade e reactividade

- **10.1 Reactividade** Não existe mais nenhuma informação relevante disponível.
- **10.2 Estabilidade química**
- **Decomposição térmica / condições a evitar:** Não existe decomposição se usado de acordo com as especificações.
- **10.3 Possibilidade de reações perigosas** Não se conhecem reações perigosas.
- **10.4 Condições a evitar** Não existe mais nenhuma informação relevante disponível.
- **10.5 Materiais incompatíveis:** Não existe mais nenhuma informação relevante disponível.
- **10.6 Produtos de decomposição perigosos:** Não se conhecem produtos de decomposição perigosos.

SECÇÃO 11: Informação toxicológica

· 11.1 Informações sobre os efeitos toxicológicos

· Toxicidade aguda

Nocivo por ingestão.

Tóxico em contacto com a pele ou por inalação.

· Valores LD/LC50 relevantes para a classificação:

75-56-9 óxido de propileno

por via oral	LD50	380 mg/kg (rat)
por via dérmica	LD50	1.245 mg/kg (rabbit)

- **Efeito de irritabilidade primário:**
- **Corrosão/irritação cutânea** Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Lesões oculares graves/irritação ocular**
Provoca irritação ocular grave.
- **Sensibilização respiratória ou cutânea**
Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Efeitos CMR (carcinogenicidade, mutagenicidade e efeitos tóxicos na reprodução)**
- **Mutagenicidade em células germinativas**
Pode provocar anomalias genéticas.
- **Carcinogenicidade**
Pode provocar cancro.
- **Toxicidade reprodutiva** Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Toxicidade para órgãos-alvo específicos (STOT) - exposição única**
Pode provocar irritação das vias respiratórias.

(continuação na página 7)

Ficha de dados de segurança
em conformidade com 1907/2006/CE, Artigo 31°

data da impressão 30.10.2018

Revisão: 30.10.2018

Nome comercial: **PROPYLENE OXIDE, ACS REAGENT**

(continuação da página 6)

- **Toxicidade para órgãos-alvo específicos (STOT) - exposição repetida**
Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Perigo de aspiração** Com base nos dados disponíveis, os critérios de classificação não são preenchidos.


SECÇÃO 12: Informação ecológica

- **12.1 Toxicidade**
- **Toxicidade aquática:** Não existe mais nenhuma informação relevante disponível.
- **12.2 Persistência e degradabilidade** Não existe mais nenhuma informação relevante disponível.
- **12.3 Potencial de bioacumulação** Não existe mais nenhuma informação relevante disponível.
- **12.4 Mobilidade no solo** Não existe mais nenhuma informação relevante disponível.
- **Outras indicações ecológicas:**
- **Indicações gerais:**
Classe de perigo para a água 3 (D) (classificação pelas listas): muito perigoso para a água
Não deixar chegar às águas subterrâneas, aos cursos de água nem à canalização, nem em pequenas quantidades.
Perigo de poluição da água potável mesmo se forem derramadas quantidades muito pequenas no subsolo.
- **12.5 Resultados da avaliação PBT e mPmB**
- **PBT:** Não aplicável.
- **mPmB:** Não aplicável.
- **12.6 Outros efeitos adversos** Não existe mais nenhuma informação relevante disponível.

SECÇÃO 13: Considerações relativas à eliminação

- **13.1 Métodos de tratamento de resíduos**
- **Recomendação:** Não se pode eliminar juntamente com o lixo doméstico. Não permita que chegue à canalização.
- **Embalagens contaminadas:**
- **Recomendação:** Eliminação residual conforme o regulamento dos serviços públicos.
- **Meio de limpeza recomendado:** Água, eventualmente com adição de produtos de limpeza

SECÇÃO 14: Informações relativas ao transporte

- | | |
|---|-------------------------|
| · 14.1 Número ONU | |
| · ADR, IMDG, IATA | UN1280 |
| · 14.2 Designação oficial de transporte da ONU | |
| · ADR | 1280 ÓXIDO DE PROPILENO |
| · IMDG, IATA | PROPYLENE OXIDE |
| · 14.3 Classes de perigo para efeitos de transporte | |
| · ADR, IMDG, IATA | |
|  | |
| · Classe | 3 Líquidos inflamáveis |
| · Rótulo | 3 |
| · 14.4 Grupo de embalagem | |
| · ADR, IMDG, IATA | I |

(continuação na página 8)

Ficha de dados de segurança
em conformidade com 1907/2006/CE, Artigo 31°

data da impressão 30.10.2018

Revisão: 30.10.2018

Nome comercial: **PROPYLENE OXIDE, ACS REAGENT**

(continuação da página 7)

· 14.5 Perigos para o ambiente:	Não aplicável.
· 14.6 Precauções especiais para o utilizador	Atenção: Líquidos inflamáveis
· Nº Kemler:	339
· Nº EMS:	3-06
· Stowage Category	E
· Stowage Code	SW2 Clear of living quarters.
· 14.7 Transporte a granel em conformidade com o anexo II da Convenção MARPOL e o Código IBC	Não aplicável.
· Transporte/outras informações:	
· ADR	
· Quantidades Limitadas (LQ)	0
· Quantidades exceptuadas (EQ)	Código: E3 Quantidade líquida máxima por embalagem interior: 30 ml Quantidade líquida máxima por embalagem exterior: 300 ml
· Categoria de transporte	1
· Código de restrição em túneis	D/E
· IMDG	
· Limited quantities (LQ)	0
· Excepted quantities (EQ)	Code: E3 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 300 ml
· UN "Model Regulation":	UN 1280 ÓXIDO DE PROPILENO, 3, I

SECÇÃO 15: Informação sobre regulamentação

- **15.1 Regulamentação/legislação específica para a substância ou mistura em matéria de saúde, segurança e ambiente**
- **Diretiva 2012/18/UE**
- **Substâncias perigosas designadas - ANEXO I** A substância não está listada.
- **Categoria "Seveso"**
P5a LÍQUIDOS INFLAMÁVEIS
H2 TOXICIDADE AGUDA
- **Quantidades-limiar (em toneladas), para a aplicação de requisitos de nível inferior 10 t**
- **Quantidades-limiar (em toneladas), para a aplicação de requisitos de nível superior 50 t**
- **Regulamento (CE) n.º 1907/2006 ANEXO XVII** Condições de limitação: 3, 28, 29
- **Disposições nacionais:**
- **Avisos para limitação da exposição no local de trabalho:**
Os trabalhadores não devem ser expostos a substâncias perigosas. Em casos isolados os serviços públicos podem permitir excepções.
- **outros regulamentos, restrições e decretos que proibem**
- **Substâncias que suscitam elevada preocupação (SVHC) em conformidade com REACH, artigo 57**
- 75-56-9 óxido de propileno
- **15.2 Avaliação da segurança química:** Não foi realizada nenhuma Avaliação de Segurança Química.

PT

(continuação na página 9)

Ficha de dados de segurança
em conformidade com 1907/2006/CE, Artigo 31°

data da impressão 30.10.2018

Revisão: 30.10.2018

Nome comercial: PROPYLENE OXIDE, ACS REAGENT

(continuação da página 8)

SECÇÃO 16: Outras informações

As informações fornecidas baseiam-se no estado actual dos nossos conhecimentos, embora não representem uma garantia das propriedades do produto e não fundamentam uma relação contratual.

· Abreviaturas e acrónimos:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 1: Líquidos inflamáveis – Categoria 1

Acute Tox. 4: Toxicidade aguda – Categoria 4

Acute Tox. 3: Toxicidade aguda – Categoria 3

Eye Irrit. 2: Lesões oculares graves/irritação ocular – Categoria 2

Muta. 1B: Mutagenicidade em células germinativas – Categoria 1B

Carc. 1B: Carcinogenicidade – Categoria 1B

STOT SE 3: Toxicidade para órgãos-alvo específicos (exposição única) – Categoria 3

**Fișa cu date de securitate
conform (CE) 1907/2006, Articolul 31**

Tipărită la: 30.10.2018

data de actualizare: 30.10.2018

SECȚIUNEA 1: Identificarea substanței/amestecului și a societății/întreprinderii

- **1.1 Element de identificare a produsului**
- **Denumire comercială:** PROPYLENE OXIDE, ACS REAGENT
- **Nr. articol:** 20401, 20411, 20412, 20414
- **Numărul CAS:**
75-56-9
- **Numărul CE:**
200-879-2
- **Numărul Index:**
603-055-00-4
- **1.2 Utilizări relevante identificate ale substanței sau amestecului și utilizări contraindicate**
Nu există alte informații relevante.
- **Utilizarea materialului / a preparatului** Chimicale de laborator
- **1.3 Detalii privind furnizorul fișei cu date de securitate**
- **Producător/furnizor:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Informații asigurate de:** Product safety department
- **1.4 Număr de telefon care poate fi apelat în caz de urgență:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

SECȚIUNEA 2: Identificarea pericolelor

- **2.1 Clasificarea substanței sau a amestecului**
- **Clasificarea în conformitate cu Regulamentul (CE) nr. 1272/2008**



GHS02 flacără

Flam. Liq. 1 H224 Lichid și vapori extrem de inflamabili.



GHS06 craniu cu două oase încrucișate

Acute Tox. 3 H311 Toxic în contact cu pielea.

Acute Tox. 3 H331 Toxic în caz de inhalare.



GHS08 pericol pentru sănătate

Muta. 1B H340 Poate provoca anomalii genetice.

Carc. 1B H350 Poate provoca cancer.



GHS07

Acute Tox. 4 H302 Nociv în caz de înghițire.

(Continuare pe pagina 2)

**Fișa cu date de securitate
conform (CE) 1907/2006, Articolul 31**

Tipărită la: 30.10.2018

data de actualizare: 30.10.2018

Denumire comercială: PROPYLENE OXIDE, ACS REAGENT

(Continuare pe pagina 1)

Eye Irrit. 2 H319 Provoacă o iritare gravă a ochilor.

STOT SE 3 H335 Poate provoca iritarea căilor respiratorii.

· **2.2 Elemente pentru etichetă**

· **Etichetarea în conformitate cu Regulamentul (CE) nr. 1272/2008**

Substanța este clasificată și etichetată conform regulamentului privind clasificarea, etichetarea și ambalarea (CLP).

· **Pictograme de pericol**



GHS02 GHS06 GHS08

· **Cuvânt de avertizare Pericol**

· **Componente periculoase care determină etichetarea:**

propilen oxid

· **Fraze de pericol**

H224 Lichid și vapori extrem de inflamabili.

H302 Nociv în caz de înghițire.

H311+H331 Toxic în contact cu pielea sau prin inhalare.

H319 Provoacă o iritare gravă a ochilor.

H340 Poate provoca anomalii genetice.

H350 Poate provoca cancer.

H335 Poate provoca iritarea căilor respiratorii.

· **Fraze de precauție**

P210 A se păstra departe de surse de căldură, suprafețe fierbinți, scânteii, flăcări și alte surse de aprindere. Fumatul interzis.

P241 Utilizați echipamente electrice/de ventilare/de iluminat/antideflagrante.

P303+P361+P353 ÎN CAZ DE CONTACT CU PIELEA (sau părul): scoateți imediat toată îmbrăcămintea contaminată. Clătiți pielea cu apă/faceți duș.

P305+P351+P338 ÎN CAZ DE CONTACT CU OCHII: clătiți cu atenție cu apă timp de mai multe minute. Scoateți lentilele de contact, dacă este cazul și dacă acest lucru se poate face cu ușurință. Continuați să clătiți.

P405 A se depozita sub cheie.

P501 Aruncați conținutul/containerul în acord cu regulamentele locale/regionale/naționale/internaționale.

· **2.3 Alte pericole**

· **Rezultatele evaluării PBT și vPvB**

· **PBT:** neaplicabil

· **vPvB:** neaplicabil

SECȚIUNEA 3: Compoziție/informații privind componenții

· **3.1 Caracteristici chimice: Substanțe**

· **Nr. CAS/ denumire**

75-56-9 propilen oxid

· **Numărle de identitate**

· **Numărul CE:** 200-879-2

· **Numărul Index:** 603-055-00-4

(Continuare pe pagina 3)

Fișa cu date de securitate
conform (CE) 1907/2006, Articolul 31

Tipărită la: 30.10.2018

data de actualizare: 30.10.2018

Denumire comercială: PROPYLENE OXIDE, ACS REAGENT

(Continuare pe pagina 2)

· SVHC

75-56-9 propilen oxid

SECȚIUNEA 4: Măsuri de prim ajutor

· **4.1 Descrierea măsurilor de prim ajutor**

· **Indicații generale:**

A se îndepărta imediat hainele atinse de produs.

Simptomele de otrăvire pot apare după multe ore, din acest motiv este necesară supravegherea atentă a unui medic pentru cel puțin 48 de ore după accident.

Masca protectivă trebuie scoasă numai după îndepărtarea tuturor hainelor atinse de produs.

In caz de respirație neregulată sau de blocaj respiratoriu trebuie practicată respirația artificială.

· **după inhalare:**

Pacientul trebuie transportat într-un loc bine aerisit și administrat oxigen; este necesară intervenția medicului.

In caz de leșin, pacientul trebuie ținut și transportat în poziție laterală cât mai stabilă.

· **după contactul cu pielea:** Trebuie spălat imediat cu apă și săpun, clătind din abundență.

· **după contactul cu ochii:**

Este necesară spălarea ochilor cu apă curentă timp de câteva minute, ținând pleoapele complet deschise. Dacă durerile persistă trebuie consultat medicul.

· **după înghițire:** Trebuie chemat imediat medicul.

· **4.2 Cele mai importante simptome și efecte, atât acute, cât și întârziate** Nu există alte informații relevante.

· **4.3 Indicații privind orice fel de asistență medicală imediată și tratamentele speciale necesare**

Nu există alte informații relevante.

SECȚIUNEA 5: Măsuri de combatere a incendiilor

· **5.1 Mijloace de stingere a incendiilor**

· **Extinctorul potrivit:**

CO₂, pulbere sau apă gazoasă. Incendiile puternice trebuie stinse cu apă gazoasă sau cu spumă rezistentă la alcool.

· **5.2 Pericole speciale cauzate de substanța sau amestecul în cauză** Nu există alte informații relevante.

· **5.3 Recomandări destinate pompierilor**

· **Mijloace de protecție specifice:** Trebuie folosită masca de protecție respiratorie.

SECȚIUNEA 6: Măsuri de luat în caz de dispersie accidentală

· **6.1 Precauții personale, echipament de protecție și proceduri de urgență**

Trebuie folosit echipamentul protector. Este necesară îndepărtarea persoanelor care nu sînt echipate corespunzător.

· **6.2 Precauții pentru mediul înconjurător:**

Este necesară diluarea cu multă apă.

Trebuie evitată infiltrarea în canalizare/ape de suprafață/ape freatice.

· **6.3 Metode și material pentru izolarea incendiilor și pentru curățenie:**

Lichidul trebuie restrîns cu ajutorul materialelor absorbante (nisip, făină fosilică, legătură universală, legătură de acizi, rumeguș).

Materialul contaminat trebuie eliminat ca reziduu în conformitate cu punctul 13.

Trebuie asigurată o aerisire suficientă.

· **6.4 Trimiteri către alte secțiuni**

Pentru informații cu privire la o manipulare sigură vezi capitolul 7.

Pentru informații cu privire la echipamentul de protecție de uz personal vezi capitolul 8.

(Continuare pe pagina 4)

Fișa cu date de securitate
conform (CE) 1907/2006, Articolul 31

Tipărită la: 30.10.2018

data de actualizare: 30.10.2018

Denumire comercială: PROPYLENE OXIDE, ACS REAGENT

(Continuare pe pagina 3)

Pentru informații cu privire la reziduuri vezi capitolul 13.

SECȚIUNEA 7: Manipularea și depozitarea

- **7.1 Precauții pentru manipularea în condiții de securitate**
Trebuie asigurată o bună aerisire/aspirare la locul de muncă.
Rezervoarele se vor deschide și manipula cu multă atenție.
Trebuie evitată formarea de aerosol.
- **Indicații în caz de incendiu sau explozie:**
Se vor îndepărta sursele de incendiu - fumatul interzis.
Produsul se va proteja de căldură.
Se vor lua măsuri împotriva încărcării electrostatice.
Se vor pregăti aparate de protecție respiratorie.
- **7.2 Condiții de depozitare în condiții de securitate, inclusiv eventuale incompatibilități**
- **Mod de păstrare:**
- **Condiții pentru depozite și rezervoare:** Produsul se va păstra la loc rece.
- **Indicații cu privire la stocarea mixtă:** Nu este necesar.
- **Alte indicații cu privire la condițiile de depozitare:**
Rezervoarele se vor închide ermetic.
Rezervoarele se vor închide permițând ieșirea gazelor.
A se păstra la loc uscat și rece, în recipiente bine închise.
A se feri de căldură și de razele soarelui.
- **7.3 Utilizare finală specifică (utilizări finale specifice)** Nu există alte informații relevante.

SECȚIUNEA 8: Controale ale expunerii/protecția personală

- **Indicații suplimentare privind instalațiile tehnice:** Fără date suplimentare, a se vedea punctul 7.

· 8.1 Parametri de control

- **Ingredienții ale căror valori limită trebuie ținute sub control la locurile de muncă:**

75-56-9 propilen oxid

VLM (RO)	Valoare limita maxima 8 ore: 50 mg/m ³ , 21 ppm CIB, MIB
----------	--

BOELV (EU)	Valoare limita maxima 8 ore: 2,4 mg/m ³ , 1 ppm
------------	--

- **Indicații suplimentare:** S-au folosit ca bază listele valabile în momentul producției.

· 8.2 Controale ale expunerii

- **Echipament de protecție personală:**

- **Norme generale de protecție și de igienă în timpul lucrului:**

A se ține la distanță de alimente, băuturi și furaje.

A se îndepărta imediat hainele contaminate.

A se spăla mâinile înaintea pauzelor și la terminarea lucrului.

Echipamentul de protecție se va păstra separat.

A se evita contactul cu ochii.

A se evita contactul cu ochii și pielea.

- **Mască de protecție:**

In cazul expunerilor scurte și minime se va utiliza masca; în cazul celor mai intense și de durată se va utiliza aparatul autorespirator.

(Continuare pe pagina 5)

Fișa cu date de securitate
conform (CE) 1907/2006, Articolul 31

Tipărită la: 30.10.2018

data de actualizare: 30.10.2018

Denumire comercială: PROPYLENE OXIDE, ACS REAGENT

(Continuare pe pagina 4)

· **Protecția mâinilor:**



Mănuși de protecție

Materialul din care sunt fabricate mănușile trebuie să fie impermeabil la aer și rezistent la produs / substanță / preparat.

În absența testelor nu pot fi date recomandări privind materialul de mănuși pentru produs / preparat / amestec chimic.

Alegerea materialului pentru mănuși se va face luându-se în considerație timpul de penetrare, rata de permeabilitate și degradarea.

· **Material pentru mănuși**

Alegerea unei mănuși potrivite depinde nu numai de material, ci și de alte caracteristici de calitate și diferă de la producător la producător.

· **Timp de penetrație al materialului pentru mănuși**

Timpul exact de penetrare trebuie aflat și respectat de către fabricantul mănușilor de protecție.

· **Protecția ochilor:**



Ochelari de protecție bine închiși.

SECȚIUNEA 9: Proprietățile fizice și chimice

· **9.1 Informații privind proprietățile fizice și chimice de bază**

· **Indicații generale**

· **Aspect:**

Formă:	Lichid
Culoare:	incolor
Miros:	caracteristic
Pragul de acceptare a mirosului:	Nedefinit.

· **Valoare pH:** Nedefinit.

· **Schimbare de stare de agregare**

Punctul de topire/punctul de înghețare:	-111,9 °C
Punctul inițial de fierbere și intervalul de fierbere:	34,3 °C

· **Punctul de aprindere:** -37 °C

· **Inflamabilitatea (solid, gaz):** neaplicabil

· **Temperatură de aprindere:** 430 °C

· **Temperatura de descompunere:** Nedefinit.

· **Temperatura de autoaprindere:** Nedefinit.

· **Proprietăți explozive:** Produsul nu este explozibil, poate însă forma amestecuri vapori/aer explozive.

· **Limite de inflamabilitate:**

inferioară:	1,9 Vol %
superioară:	15 Vol %

· **Presiunea de vapori la 20 °C:** 590 hPa

(Continuare pe pagina 6)

Fișa cu date de securitate
conform (CE) 1907/2006, Articolul 31

Tipărită la: 30.10.2018

data de actualizare: 30.10.2018

Denumire comercială: PROPYLENE OXIDE, ACS REAGENT

(Continuare pe pagina 5)

· Densitate la 20 °C:	0,8313 g/cm ³
· Densitatea relativă:	Nedefinit.
· Densitatea vaporilor:	Nedefinit.
· Viteza de evaporare	Nedefinit.
· Solubil în / amestecabil cu: Apa la 20 °C:	405 g/l
· Coeficientul de partiție: n-octanol/apă:	Nedefinit.
· Vâscozitatea: dinamică:	Nedefinit.
cinematică:	Nedefinit.
· Nivelul solventului: VOC (EC)	0,00 %
Conținut solid:	0,0 %
· 9.2 Alte informații	Nu există alte informații relevante.

SECȚIUNEA 10: Stabilitate și reactivitate

- 10.1 Reactivitate Nu există alte informații relevante.
- 10.2 Stabilitate chimică
- Descompunere termică/ condiții de evitat: Produsul nu se descompune dacă este folosit conform normelor.
- 10.3 Posibilitatea de reacții periculoase Nu se cunosc reacții periculoase.
- 10.4 Condiții de evitat Nu există alte informații relevante.
- 10.5 Materiale incompatibile: Nu există alte informații relevante.
- 10.6 Produși de descompunere periculoși: Nu sînt cunoscuți produși de descompunere periculoși.

SECȚIUNEA 11: Informații toxicologice

11.1 Informații privind efectele toxicologice

Toxicitate acută

Nociv în caz de înghițire.

Toxic în contact cu pielea sau prin inhalare.

· Valori LD/LC50 relevante pentru clasificare:

75-56-9 propilen oxid

Oral LD50 380 mg/kg (rat)

Dermal LD50 1.245 mg/kg (rabbit)

· Iritabilitate primară:

· Corodarea/iritarea pielii Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.

· Lezarea gravă/iritarea ochilor

Provoacă o iritare gravă a ochilor.

· Sensibilizarea căilor respiratorii sau a pielii

Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.

· Informații cu privire la următoarele grupe de efecte posibile:

· Efecte CMR (efect cancerigen, mutagen și toxic pentru reproducere)

· Mutagenitatea celulelor germinative

Poate provoca anomalii genetice.

· Cancerogenitatea

Poate provoca cancer.

(Continuare pe pagina 7)

Fișa cu date de securitate
conform (CE) 1907/2006, Articolul 31

Tipărită la: 30.10.2018

data de actualizare: 30.10.2018

Denumire comercială: PROPYLENE OXIDE, ACS REAGENT

(Continuare pe pagina 6)

- **Toxicitatea pentru reproducere** Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
- **STOT (toxicitate asupra organelor țintă specifice) – expunere unică**
Poate provoca iritarea căilor respiratorii.
- **STOT (toxicitate asupra organelor țintă specifice) – expunere repetată**
Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
- **Pericol prin aspirare** Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.

SECȚIUNEA 12: Informații ecologice

- **12.1 Toxicitate**
- **Toxicitate acvatică:** Nu există alte informații relevante.
- **12.2 Persistență și degradabilitate** Nu există alte informații relevante.
- **12.3 Potențial de bioacumulare** Nu există alte informații relevante.
- **12.4 Mobilitate în sol** Nu există alte informații relevante.
- **Alte indicații ecologice:**
- **Indicații generale:**
Clasa de pericol pentru ape 3 (Clasif. conform listelor): foarte periculos
A nu se infiltra în apele freatice, în rețeaua de apă sau în canalizare, nici măcar în mici cantități.
Pericol pentru apele potabile chiar în cazul scurgerii unei mici cantități de produs în subsol.
- **12.5 Rezultatele evaluării PBT și vPvB**
- **PBT:** neaplicabil
- **vPvB:** neaplicabil
- **12.6 Alte efecte adverse** Nu există alte informații relevante.

SECȚIUNEA 13: Considerații privind eliminarea

- **13.1 Metode de tratare a deșeurilor**
- **Recomandare:**
Produsul nu se va îndepărta împreună cu resturile menajere. Se va evita pătrunderea în canalizare.
- **Ambalaje impure:**
- **Recomandare:** Eliminarea reziduurilor conform dispozițiilor administrative.
- **Detergent recomandat:** Apă, eventual cu adăugare de detergent.

SECȚIUNEA 14: Informații referitoare la transport

- **14.1 Nr. UN:**
- **ADR, IMDG, IATA** UN1280
- **14.2 Denumirea corectă ONU pentru expediție**
- **ADR** 1280 OXID DE PROPILENĂ
- **IMDG, IATA** PROPYLENE OXIDE
- **14.3 Clasa (clasele) de pericol pentru transport**
- **ADR, IMDG, IATA**
- **Clasa** 3 Substanțe lichide inflamabile



(Continuare pe pagina 8)

Fișa cu date de securitate
conform (CE) 1907/2006, Articolul 31

Tipărită la: 30.10.2018

data de actualizare: 30.10.2018

Denumire comercială: PROPYLENE OXIDE, ACS REAGENT

(Continuare pe pagina 7)

· Lista de pericol	3
· 14.4 Grup de ambalaj: · ADR, IMDG, IATA	1
· 14.5 Pericole pentru mediul înconjurător:	neaplicabil
· 14.6 Precauții speciale pentru utilizatori · Nr. Kemler: · Nr. EMS: · Stowage Category · Stowage Code	Atenție: Substanțe lichide inflamabile 339 3-06 E SW2 Clear of living quarters.
· 14.7 Transport în vrac, în conformitate cu anexa II la Convenția MARPOL și cu Codul IBC	neaplicabil
· Transport/alte informații:	
· ADR · Cantități limitate / cantități limitate (LQ) · Cantități exceptate (EQ)	0 Cod: E3 Cantitatea maximă netă per ambalaj interior: 30 ml Cantitatea maximă netă per ambalaj exterior: 300 ml
· Categoria de transport: · Codul de restricție pentru tuneluri:	1 D/E
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	0 Code: E3 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 300 ml
· UN "Model Regulation":	UN 1280 OXID DE PROPILENĂ, 3, 1

SECȚIUNEA 15: Informații de reglementare

- **15.1 Regulamente/legislație în domeniul securității, sănătății și al mediului specifice (specifică) pentru substanța sau amestecul în cauză**
- **Directiva 2012/18/UE**
- **Denumirea substanțelor periculoase - ANEXA I** Substanța nu este conținută.
- **Categoria Seveso**
P5a LICHIDE INFLAMABILE
H2 TOXICITATE ACUTĂ
- **Cantitățile relevante (în tone) ale substanțelor pentru încadrarea amplasamentelor de nivel inferior 10 t**
- **Cantitățile relevante (în tone) ale substanțelor pentru încadrarea amplasamentelor de nivel superior 50 t**
- **REGULAMENTUL (CE) NR. 1907/2006 ANEXA XVII** Condiții de restricționare: 3, 28, 29
- **Regulamente naționale:**
- **Indicații privind limitarea activității:**
Personalul nu se va expune la această substanță periculoasă. Autoritățile pot aproba în anumite cazuri excepții.
- **Alte dispoziții, limitări și decrete prohibitive:**

· **Substanțelor care prezintă motive de îngrijorare deosebită conform REACH, articolul 57**

75-56-9 | propilen oxid

(Continuare pe pagina 9)

**Fișa cu date de securitate
conform (CE) 1907/2006, Articolul 31**

Tipărită la: 30.10.2018

data de actualizare: 30.10.2018

Denumire comercială: PROPYLENE OXIDE, ACS REAGENT

(Continuare pe pagina 8)

· **15.2 Evaluarea securității chimice:** Nu a fost efectuată o evaluare a securității chimice.

SECȚIUNEA 16: Alte informații

Datele au fost raportate pe baza cunoștințelor noastre actuale, nu reprezintă totuși nici o garanție pentru caracteristicile produsului și nu motivează nici un raport juridic contractual.

· **Abrevieri și acronime:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 1: Lichide inflamabile – Categoria 1

Acute Tox. 4: Toxicitate acută – Categoria 4

Acute Tox. 3: Toxicitate acută – Categoria 3

Eye Irrit. 2: Lezarea gravă a ochilor/iritarea ochilor – Categoria 2

Muta. 1B: Mutagenicitatea celulelor embrionare – Categoria 1B

Carc. 1B: Cancerigenitate – Categoria 1B

STOT SE 3: Toxicitate asupra unui organ țintă specific (o singură expunere) – Categoria 3

Паспорт безопасности.
в соответствии с 1907/2006/ЕС, Статья 31

Дата печати: 30.10.2018

Дата редактирования: 30.10.2018

1 Наименование вещества / препарата и фирмы / предприятия

- Идентификатор продукта
- Торговое наименование: **PROPYLENE OXIDE, ACS REAGENT**
- Артикульный номер: 20401, 20411, 20412, 20414
- Номер CAS:
75-56-9
- Номер ЕС:
200-879-2
- Порядковый номер:
603-055-00-4
- Соответствующие установленные применения вещества или смеси и не рекомендуемые области использования
Отсутствует какая-либо соответствующая информация.
- Применение вещества / препарата Лабораторные химикаты
- Подробная информация поставщика паспорта безопасности
- Производитель / Поставщик:
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- Отдел, предоставляющий информацию: Product safety department
- Номер телефона экстренной связи:
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Возможные виды опасности

- Классификация вещества или смеси



пламя

Воспламеняющаяся жидкость 1 H224 Чрезвычайно легко воспламеняющаяся жидкость и пар.



череп и скрещённые кости

Острая токсичность 3

H311 Токсично при контакте с кожей.

Острая токсичность 3

H331 Токсично при вдыхании.



опасность для здоровья

Мутагенность 1B

H340 Может вызывать генетические дефекты.

Канцерогенность 1B

H350 Может вызывать рак.



Острая токсичность 4

H302 Вредно при проглатывании.

(Продолжение на странице 2)

Паспорт безопасности.
в соответствии с 1907/2006/ЕС, Статья 31

Дата печати: 30.10.2018

Дата редактирования: 30.10.2018

Торговое наименование: PROPYLENE OXIDE, ACS REAGENT

(Продолжение страницы 1)

Раздражение кожи 2	H315 Вызывает раздражение кожи.
Раздражение глаз 2A	H319 Вызывает серьезное раздражение глаз.
СТОМ - однократно 3	H335 Может вызывать раздражение дыхательных путей.

· **Элементы маркировки**

· **Элементы маркировки в соответствии с СГС**

Данное вещество классифицируется и маркируется в соответствии с Согласованной на глобальном уровне системой классификации и маркировки химических веществ (GHS).

· **Пиктограммы, обозначающие опасности**



GHS02 GHS06 GHS08

· **Сигнальное слово** Опасно

· **Компоненты этикетки, указывающие на опасность:**

propylene oxide

· **Предупреждения об опасности**

Чрезвычайно легко воспламеняющаяся жидкость и пар.

Вредно при проглатывании.

Токсично при контакте с кожей или при вдыхании.

Вызывает раздражение кожи.

Вызывает серьезное раздражение глаз.

Может вызывать генетические дефекты.

Может вызывать рак.

Может вызывать раздражение дыхательных путей.

· **Меры предосторожности**

Беречь от тепла/искр/открытого огня/горячих поверхностей. – Не курить.

Использовать взрывобезопасное электрическое / вентиляционное / осветительное оборудование.

ПРИ ПОПАДАНИИ НА КОЖУ (или волосы): Немедленно снять всю загрязненную одежду. Промыть кожу водой/под душем.

ПРИ ПОПАДАНИИ В ГЛАЗА: Осторожно промыть глаза водой в течение нескольких минут. Снять контактные линзы, если вы пользуетесь ими и если это легко сделать. Продолжить промывание глаз.

Хранить под замком.

Утилизировать содержимое / тару в соответствии с местными / региональными / национальными / международными предписаниями.

· **Другие опасные факторы**

· **Результаты оценки PBT (устойчивое биоаккумулятивное токсическое вещество) и vPvB (очень устойчивое биоаккумулятивное вещество)**

· **PBT:** Неприменимо.

· **vPvB:** Неприменимо.

3 Состав / Данные по составляющим компонентам

· **Химическая характеристика: Вещества**

· **Обозначение номера CAS**

75-56-9 propylene oxide

· **Идентификационный (-ые) номер (-а)**

· **Номер ЕС:** 200-879-2

(Продолжение на странице 3)

Паспорт безопасности.
в соответствии с 1907/2006/ЕС, Статья 31

Дата печати: 30.10.2018

Дата редактирования: 30.10.2018

Торговое наименование: PROPYLENE OXIDE, ACS REAGENT

· **Порядковый номер:** 603-055-00-4

(Продолжение страницы 2)

4 Меры по оказанию первой помощи

· **Описание мер первой медицинской помощи**

· **Общие указания:**

Немедленно снять предметы одежды, загрязнённые данным продуктом.

Симптомы отравления могут проявиться даже спустя много часов, поэтому имеется необходимость в медицинском надзоре в течение как минимум 48 часов после аварии (несчастного случая).

Снимать средства защиты дыхательных путей только после того, как были сняты все заражённые предметы одежды.

При неровном дыхании или при остановке дыхания сделать пострадавшему искусственное дыхание.

· **После вдыхания:**

Обеспечить доступ свежего воздуха или кислорода, вызвать врача.

При потере сознания (обморочном состоянии) положить пациента на бок в стабильном положении для транспортировки.

· **После контакта с кожей:** Немедленно промыть с помощью воды и мыла, хорошо сполоснуть.

· **После контакта с глазами:**

Промойте открытый глаз под проточной водой в течение нескольких минут. При сохранении симптомов обратитесь к врачу.

· **После проглатывания:** Немедленно вызвать врача.

· **Указания для врача:**

· **Наиболее важные симптомы и эффекты, как немедленные, так и проявляющиеся впоследствии**

Отсутствует какая-либо соответствующая информация.

· **Указание на необходимость оперативной медицинской помощи и специального режима**

Отсутствует какая-либо соответствующая информация.

5 Меры по борьбе с пожаром

· **Средства пожаротушения**

· **Надлежащие средства тушения:**

СО₂, порошковое средство для тушения или водяная струя мелкого разбрызгивания. При борьбе с крупными пожарами следует применять водяную струю мелкого разбрызгивания или спиртоустойчивую пену.

· **Особые опасности, создаваемые веществом или смесью**

Отсутствует какая-либо соответствующая информация.

· **Рекомендации для пожарных**

· **Защитное оснащение:** Применение устройства защиты дыхательных путей.

6 Меры при непреднамеренном выделении (утечке)

· **Меры по обеспечению личной безопасности, защитное снаряжение и порядок действий в чрезвычайной ситуации**

Надеть защитное снаряжение. Держать на отдалении незащищённых людей.

· **Меры по защите окружающей среды:**

Разбавить большим количеством воды.

Не допускать попадания в канализационную систему / поверхностные или грунтовые воды.

· **Методы и материалы для локализации и очистки:**

Собрать при помощи связывающего жидкости материала (песка, кизельгура, кислотнo-вяжущего средства, универсальных вяжущих средств, опилок).

Утилизировать заражённый материал как отходы в соответствии с Пунктом 13.

(Продолжение на странице 4)

Паспорт безопасности.
в соответствии с 1907/2006/ЕС, Статья 31

Дата печати: 30.10.2018

Дата редактирования: 30.10.2018

Торговое наименование: PROPYLENE OXIDE, ACS REAGENT

(Продолжение страницы 3)

Обеспечить достаточную вентиляцию.

· **Ссылки на другие разделы**

Информация по безопасному обращению - в Главе 7.

Информация по индивидуальному защитному снаряжению - в Главе 8.

Информация по утилизации - в Главе 13.

7 Обращение с веществом и его хранение

· **Обращение с веществом:**

· **Меры предосторожности по безопасному обращению**

Обеспечить хорошую вентиляцию / вытяжку на рабочем месте.

Соблюдать осторожность при открывании ёмкостей и при обращении с ними.

Не допускать образования аэрозолей.

· **Указания по защите от пожаров и взрывов:**

Держать подальше от источников воспламенения - не курить.

Защищать от жара.

Принять меры против электростатического заряжения.

Держать наготове устройство защиты органов дыхания.

· **Условия безопасного хранения, включая несовместимости**

· **Хранение:**

· **Требования, предъявляемые к складским помещениям и таре:** Хранить в прохладном месте.

· **Указания по совместимости с другими веществами при хранении:** Не требуется.

· **Дальнейшие данные по условиям хранения:**

Держать ёмкости плотно закрытыми.

Не закрывать ёмкости газонепроницаемо.

Хранить в хорошо закрытой таре в прохладном и сухом месте.

Защищать от жары и от прямых солнечных лучей.

· **Характерное конечное применение (или применения)**

Отсутствует какая-либо соответствующая информация.

8 Ограничение воздействия вещества и контроль / индивидуальные средства защиты

· **Дополнительные указания по структуре технических устройств:**

Никаких дополнительных данных; см. Пункт 7.

· **Параметры контроля**

· **Составляющие компоненты с предельными значениями, требующие мониторинга на рабочих местах:**

75-56-9 propylene oxide

PDK	Краткосрочное значение: 1 мг/м ³ пары и/или газы
-----	--

· **Дополнительные указания:**

В качестве основы послужили списки, являвшиеся на момент составления актуальными.

· **Требования по охране труда и меры по обеспечению безопасности персонала**

· **Средства индивидуальной защиты:**

· **Общие меры по защите от воздействия и гигиене:**

Держать подальше от продуктов питания, напитков и корма для животных.

Немедленно снять всю загрязнённую и пропитанную вредными веществами одежду.

Мыть руки перед перерывами и по окончании работы.

Хранить защитную одежду отдельно.

Избегать контакта с глазами.

(Продолжение на странице 5)

Паспорт безопасности.
в соответствии с 1907/2006/ЕС, Статья 31

Дата печати: 30.10.2018

Дата редактирования: 30.10.2018

Торговое наименование: PROPYLENE OXIDE, ACS REAGENT

(Продолжение страницы 4)

Избегать контакта с глазами и с кожей.

Защита органов дыхания:

При кратковременном контакте с веществом или при воздействии вещества низкой концентрации пользоваться фильтрующим устройством для защиты органов дыхания. При интенсивном или более продолжительном контакте следует воспользоваться автономным устройством защиты органов дыхания.

Защита рук:



Защитные перчатки (рукавицы).

Материал перчаток / рукавиц должен быть устойчивым к воздействию продукта / вещества / препарата и не пропускать их.

Никаких рекомендаций в отношении материала перчаток / рукавиц, пригодных для применения в ходе работы с продуктом / препаратом / смесью химикатов дать нельзя, так как никаких испытаний в этом отношении не проводилось.

Выбор материала перчаток / рукавиц производится с учётом времени прорыва, степени проницаемости и эрозии.

Материал перчаток / рукавиц

Выбор подходящих перчаток / рукавиц определяется не только материалом, но также и другими качественными особенностями, причём между различными производителями существует большая разница.

Период проницаемости материала перчаток / рукавиц.

Необходимо осведомиться у производителя защитных перчаток / рукавиц о точном времени прорыва и придерживаться его.

Защита глаз:



Плотно прилегающие защитные очки

9 Физические и химические свойства

Информация по основным физическим и химическим свойствам

Общая информация

Внешний вид:

Форма:

Жидкость

Цвет:

Бесцветное

Запах:

Характерно

Порог запаха:

Не определено.

Значение pH:

Не определено.

Изменение состояния

Точка плавления / интервал температур плавления:

-111,9 °C

Точка кипения / интервал температур кипения:

34,3 °C

Температурная точка вспышки:

-37 °C

Воспламеняемость (твёрдое, газообразное вещество):

Неприменимо.

(Продолжение на странице 6)

Паспорт безопасности.
в соответствии с 1907/2006/ЕС, Статья 31

Дата печати: 30.10.2018

Дата редактирования: 30.10.2018

Торговое наименование: PROPYLENE OXIDE, ACS REAGENT

(Продолжение страницы 5)

· Температура воспламенения:	430 °С
· Температура распада:	Не определено.
· Самовоспламеняемость:	Не определено.
· Взрывоопасность:	Продукт не является взрывоопасным, однако возможно образование взрывоопасных смесей пара / воздуха.
· Границы взрываемости: Нижняя:	1,9 пол. %
Верхняя:	15 пол. %
· Давление пара при 20 °С:	590 гПа
· Плотность при 20 °С:	0,8313 г/см ³
· Относительная плотность	Не определено.
· Плотность пара	Не определено.
· Скорость испарения	Не определено.
· Растворимость в / Смешиваемость с водой при 20 °С:	405 г/л
· Коэффициент распределения (n-октанол / вода):	Не определено.
· Вязкость: Динамическая:	Не определено.
Кинематическая:	Не определено.
· Содержание растворителя: VOC (ЕС)	0,00 %
· Содержание твёрдых тел:	0,0 %
· Другая информация	Отсутствует какая-либо соответствующая информация.

10 Стабильность и реакционная способность

- **Реакционная способность** Отсутствует какая-либо соответствующая информация.
- **Химическая стабильность**
- **Термический распад / условия, которых следует избегать:**
При использовании в соответствии с предписаниями не происходит никакого распада.
- **Возможность опасных реакций** Неизвестно ни о каких опасных реакциях.
- **Условия, вызывающие опасные изменения** Отсутствует какая-либо соответствующая информация.
- **Несовместимые материалы:** Отсутствует какая-либо соответствующая информация.
- **Опасные продукты распада:** Неизвестно ни о каких опасных продуктах распада.

11 Данные по токсикологии

- **Информация по токсикологическому воздействию**
- **Острая токсичность:**

· **Значения LD/LC50 (летальной дозы/концентрации), необходимые для классифицирования:**

75-56-9 propylene oxide

Орально (через рот)	LD50	380 мг/кг (rat)
---------------------	------	-----------------

(Продолжение на странице 7)

Паспорт безопасности.
в соответствии с 1907/2006/ЕС, Статья 31

Дата печати: 30.10.2018

Дата редактирования: 30.10.2018

Торговое наименование: PROPYLENE OXIDE, ACS REAGENT

(Продолжение страницы 6)

Дермально (через кожу) LD50 1.245 мг/кг (rabbit)

- **Первичное раздражающее воздействие:**
- **на кожу:** Нет раздражающего воздействия.
- **на глаза:** Раздражающее воздействие.
- **Сенсибилизация:** Неизвестно о наличии сенсибилизирующего воздействия.
- **Информация по следующим группам потенциальных воздействий:**
- **Канцерогенное, изменяющее наследственность и вызывающее бесплодие действие**
Мутагенность 1В, Канцерогенность 1В

12 Экологическая информация

- **Токсичность**
- **Акватоксичность:** Отсутствует какая-либо соответствующая информация.
- **Стойкость и склонность к деградации** Отсутствует какая-либо соответствующая информация.
- **Поведение в экологических системах:**
- **Биоаккумулятивный потенциал** Отсутствует какая-либо соответствующая информация.
- **Подвижность в грунте** Отсутствует какая-либо соответствующая информация.
- **Дополнительные экологические указания:**
- **Общие указания:**
Класс вредности для воды 3 (Списочная классификация): очень вредно для воды
Не допускать попадания продукта в грунтовые воды, водоёмы или в канализационную систему, даже в малых количествах.
Вред для питьевой воды при попадании под землю даже минимальных количеств.
- **Результаты оценки РВТ (устойчивое биоаккумулятивное токсическое вещество) и vPvB (очень устойчивое биоаккумулятивное вещество)**
- **РВТ:** Неприменимо.
- **vPvB:** Неприменимо.
- **Другие вредные эффекты** Отсутствует какая-либо соответствующая информация.

13 Указания по утилизации

- **Методы обработки отходов**
- **Рекомендация:**
Утилизация совместно с бытовыми отходами недопустима. Не допускать попадания в канализацию.
- **Неочищенные упаковки:**
- **Рекомендация:**
Утилизация должна быть осуществлена в соответствии с предписаниями компетентных служб.
- **Рекомендуемые чистящие средства:** Вода - если необходимо, с добавлением чистящих средств.

14 Информация по транспорту

- | | |
|--|--------------------|
| · Номер UN | |
| · ADR, IMDG, IATA | UN1280 |
| · Собственное транспортное наименование ООН | |
| · ADR | 1280 ПРОПИЛЕНОКСИД |
| · IMDG, IATA | PROPYLENE OXIDE |

(Продолжение на странице 8)

Паспорт безопасности.
в соответствии с 1907/2006/ЕС, Статья 31

Дата печати: 30.10.2018

Дата редактирования: 30.10.2018

Торговое наименование: PROPYLENE OXIDE, ACS REAGENT

(Продолжение страницы 7)

- классов опасности транспорта

- ADR, IMDG, IATA



- Класс 3 Легковоспламеняющиеся жидкости
- Этикетка для опасного содержимого 3

- Группа упаковки
- ADR, IMDG, IATA 1

- Экологические риски: Неприменимо.

- Особые меры предосторожности для пользователей Осторожно: Легковоспламеняющиеся жидкости
- Код опасности (по Кемлеру): 339
- Номер EMS: 3-06
- Stowage Category E
- Stowage Code SW2 Clear of living quarters.

- Транспортировка навалом в соответствии с Приложением II MARPOL73/78 (Международная конвенция по предотвращению загрязнения вод с судов) и IBC Code (Международный кодекс перевозок опасных химических грузов наливом) Неприменимо.

- Транспорт / дополнительная информация:

- ADR
- Ограниченные объёмы (LQ) 0
- Освобожденные количества (EQ) Код: E3
Максимальное количество нетто на внутреннюю тару: 30 мл
Максимальное количество нетто на наружную тару: 300 мл
- Транспортная категори 1
- Код ограничения проезда через туннели D/E

- IMDG
- Limited quantities (LQ) 0
- Excepted quantities (EQ) Code: E3
Maximum net quantity per inner packaging: 30 мл
Maximum net quantity per outer packaging: 300 мл

- UN "Model Regulation": UN 1280 ПРОПИЛЕНОКСИД, 3, I

15 Предписания

- Нормы безопасности, правила охраны труда и экологические нормативы или стандарты, действующие для вещества или смеси
- Элементы маркировки в соответствии с СГС
Данное вещество классифицируется и маркируется в соответствии с Согласованной на глобальном уровне системой классификации и маркировки химических веществ (GHS).

(Продолжение на странице 9)

Паспорт безопасности.
в соответствии с 1907/2006/ЕС, Статья 31

Дата печати: 30.10.2018

Дата редактирования: 30.10.2018

Торговое наименование: PROPYLENE OXIDE, ACS REAGENT

(Продолжение страницы 8)

· **Пиктограммы, обозначающие опасности**



· **Сигнальное слово** Опасно

· **Компоненты этикетки, указывающие на опасность:**

propylene oxide

· **Предупреждения об опасности**

Чрезвычайно легко воспламеняющаяся жидкость и пар.

Вредно при проглатывании.

Токсично при контакте с кожей или при вдыхании.

Вызывает раздражение кожи.

Вызывает серьезное раздражение глаз.

Может вызывать генетические дефекты.

Может вызывать рак.

Может вызывать раздражение дыхательных путей.

· **Меры предосторожности**

Береечь от тепла/искр/открытого огня/горячих поверхностей. – Не курить.

Использовать взрывобезопасное электрическое / вентиляционное / осветительное оборудование.

ПРИ ПОПАДАНИИ НА КОЖУ (или волосы): Немедленно снять всю загрязненную одежду. Промыть кожу водой/под душем.

ПРИ ПОПАДАНИИ В ГЛАЗА: Осторожно промыть глаза водой в течение нескольких минут. Снять контактные линзы, если вы пользуетесь ими и если это легко сделать. Продолжить промывание глаз.

Хранить под замком.

Утилизировать содержимое / тару в соответствии с местными / региональными / национальными / международными предписаниями.

· **Национальные предписания:**

· **Указания по ограничению использования:**

Сотрудников нельзя подвергать воздействию данного опасного вещества. В отдельных случаях компетентные службы могут допустить исключения.

· **Оценка химической безопасности:** Оценка химической безопасности не проведена.

16 Прочая информация:

Данные опираются на актуальные знания, однако они не являются гарантией каких-либо конкретных свойств продукта и не устанавливают никаких действующих с юридической точки зрения договорных отношений.

· **Аббревиатуры и акронимы:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Воспламеняющаяся жидкость 1: Flammable liquids – Category 1

Острая токсичность 4: Acute toxicity – Category 4

Острая токсичность 3: Acute toxicity – Category 3

(Продолжение на странице 10)

Паспорт безопасности.
в соответствии с 1907/2006/ЕС, Статья 31

Дата печати: 30.10.2018

Дата редактирования: 30.10.2018

Торговое наименование: PROPYLENE OXIDE, ACS REAGENT

Раздражение кожи 2: Skin corrosion/irritation – Category 2
Раздражение глаз 2A: Serious eye damage/eye irritation – Category 2A
Мутагенность 1B: Germ cell mutagenicity – Category 1B
Канцерогенность 1B: Carcinogenicity – Category 1B
СТОМ - однократно 3: Specific target organ toxicity (single exposure) – Category 3

(Продолжение страницы 9)

RU

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 30.10.2018

Revisión: 30.10.2018

SECCIÓN 1: Identificación de la sustancia o la mezcla y de la sociedad o la empresa

- **1.1 Identificador del producto**
- **Nombre comercial:** *PROPYLENE OXIDE, ACS REAGENT*
- **Número del artículo:** 20401, 20411, 20412, 20414
- **Número CAS:**
75-56-9
- **Número CE:**
200-879-2
- **Número de clasificación:**
603-055-00-4
- **1.2 Usos pertinentes identificados de la sustancia o de la mezcla y usos desaconsejados**
No existen más datos relevantes disponibles.
- **Utilización del producto / de la elaboración** Sustancias químicas de laboratorio
- **1.3 Datos del proveedor de la ficha de datos de seguridad**
- **Fabricante/distribuidor:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Aname**
C/ Perez Galdos no. 2
28693 Quijorna
Madrid, Spain
Tel: +34.91.816.89.50
Fax: +34.91.816.85.94
email: ventas@aname.es
- **Área de información:** Product safety department
- **1.4 Teléfono de emergencia:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

SECCIÓN 2: Identificación de los peligros

- **2.1 Clasificación de la sustancia o de la mezcla**
- **Clasificación con arreglo al Reglamento (CE) n° 1272/2008**



GHS02 llama

Flam. Liq. 1 H224 Líquido y vapores extremadamente inflamables.



GHS06 calavera y tibias cruzadas

Acute Tox. 3 H311 Tóxico en contacto con la piel.

Acute Tox. 3 H331 Tóxico en caso de inhalación.



GHS08 peligro para la salud

(se continua en página 2)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 30.10.2018

Revisión: 30.10.2018

Nombre comercial: PROPYLENE OXIDE, ACS REAGENT

(se continua en página 1)

Muta. 1B H340 Puede provocar defectos genéticos.

Carc. 1B H350 Puede provocar cáncer.



GHS07

Acute Tox. 4 H302 Nocivo en caso de ingestión.

Eye Irrit. 2 H319 Provoca irritación ocular grave.

STOT SE 3 H335 Puede irritar las vías respiratorias.

· 2.2 Elementos de la etiqueta

· Etiquetado con arreglo al Reglamento (CE) n° 1272/2008

La sustancia se ha clasificado y etiquetado de conformidad con el reglamento CLP.

· Pictogramas de peligro



GHS02

GHS06

GHS08

· Palabra de advertencia Peligro

· Componentes peligrosos a indicar en el etiquetaje:

óxido de propileno

· Indicaciones de peligro

H224 Líquido y vapores extremadamente inflamables.

H302 Nocivo en caso de ingestión.

H311+H331 Tóxico en contacto con la piel o si se inhala.

H319 Provoca irritación ocular grave.

H340 Puede provocar defectos genéticos.

H350 Puede provocar cáncer.

H335 Puede irritar las vías respiratorias.

· Consejos de prudencia

P210 Mantener alejado del calor, de superficies calientes, de chispas, de llamas abiertas y de cualquier otra fuente de ignición. No fumar.

P241 Utilizar un material eléctrico, de ventilación o de iluminación/antideflagrante.

P303+P361+P353 EN CASO DE CONTACTO CON LA PIEL (o el pelo): Quitar inmediatamente todas las prendas contaminadas. Aclararse la piel con agua/ ducharse.

P305+P351+P338 EN CASO DE CONTACTO CON LOS OJOS: Aclarar cuidadosamente con agua durante varios minutos. Quitar las lentes de contacto, si lleva y resulta fácil. Seguir aclarando.

P405 Guardar bajo llave.

P501 Eliminar el contenido o el recipiente conforme a la reglamentación local/regional/nacional/internacional.

· 2.3 Otros peligros

· Resultados de la valoración PBT y mPmB

· PBT: No aplicable.

· mPmB: No aplicable.

SECCIÓN 3: Composición/información sobre los componentes

· 3.1 Caracterización química: Sustancias

· Denominación N° CAS

75-56-9 óxido de propileno

(se continua en página 3)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 30.10.2018

Revisión: 30.10.2018

Nombre comercial: PROPYLENE OXIDE, ACS REAGENT

(se continua en página 2)

- **Número(s) de identificación**
- **Número CE:** 200-879-2
- **Número de clasificación:** 603-055-00-4

· **SVHC**

75-56-9 | óxido de propileno

SECCIÓN 4: Primeros auxilios

- **4.1 Descripción de los primeros auxilios**
- **Instrucciones generales:**
 Quitar de inmediato toda prenda contaminada con el producto.
 Los síntomas de intoxicación pueden presentarse después de muchas horas, por lo que se requiere una supervisión médica durante un mínimo de 48 horas después del accidente.
 Antes de quitarse la protección respiratoria, quítese la ropa contaminada.
 En caso de respiración irregular o apnea (paro respiratorio), hágase la respiración artificial.
- **En caso de inhalación del producto:**
 Suministrar aire fresco u oxígeno; solicitar ayuda médica.
 Las personas desmayadas deben tenderse y transportarse de lado con la suficiente estabilidad.
- **En caso de contacto con la piel:** Lavar inmediatamente con agua y jabón y enjuagar bien.
- **En caso de con los ojos:**
 Limpiar los ojos abiertos durante varios minutos con agua corriente. En caso de trastornos persistentes consultar un médico.
- **En caso de ingestión:** Consultar inmediatamente un médico.
- **4.2 Principales síntomas y efectos, agudos y retardados** No existen más datos relevantes disponibles.
- **4.3 Indicación de toda atención médica y de los tratamientos especiales que deban dispensarse inmediatamente**
 No existen más datos relevantes disponibles.

SECCIÓN 5: Medidas de lucha contra incendios

- **5.1 Medios de extinción**
- **Sustancias extintoras apropiadas:**
 CO₂, polvo extintor o chorro de agua rociada. Combatir incendios mayores con chorro de agua rociada o espuma resistente al alcohol.
- **5.2 Peligros específicos derivados de la sustancia o la mezcla** No existen más datos relevantes disponibles.
- **5.3 Recomendaciones para el personal de lucha contra incendios**
- **Equipo especial de protección:** Colocarse la protección respiratoria.

SECCIÓN 6: Medidas en caso de vertido accidental

- **6.1 Precauciones personales, equipo de protección y procedimientos de emergencia**
 Llevar puesto equipo de protección. Mantener alejadas las personas sin protección.
- **6.2 Precauciones relativas al medio ambiente:**
 Diluir con mucha agua.
 Evitar que penetre en la canalización /aguas de superficie /agua subterráneas.
- **6.3 Métodos y material de contención y de limpieza:**
 Quitar con material absorbente (arena, kieselgur, aglutinante de ácidos, aglutinante universal, aserrín).
 Desechar el material contaminado como vertido según ítem 13.
 Asegurar suficiente ventilación.
- **6.4 Referencia a otras secciones**
 Ver capítulo 7 para mayor información sobre una manipulación segura.
 Ver capítulo 8 para mayor información sobre el equipo personal de protección.

(se continua en página 4)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 30.10.2018

Revisión: 30.10.2018

Nombre comercial: PROPYLENE OXIDE, ACS REAGENT

(se continua en página 3)

Para mayor información sobre cómo desechar el producto, ver capítulo 13.

SECCIÓN 7: Manipulación y almacenamiento

· 7.1 Precauciones para una manipulación segura

Asegurar suficiente ventilación /aspiración en el puesto de trabajo.

Abrir y manejar el recipiente con cuidado.

Evitar la formación de aerosoles.

· Prevención de incendios y explosiones:

Mantener alejadas las fuentes de encendido. No fumar.

Proteger del calor.

Tomar medidas contra las cargas electrostáticas.

Tener preparados los aparatos respiratorios.

· 7.2 Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades

· Almacenamiento:

· **Exigencias con respecto al almacén y los recipientes:** Almacenar en un lugar fresco.

· **Normas en caso de un almacenamiento conjunto:** No es necesario.

· Indicaciones adicionales sobre las condiciones de almacenamiento:

Mantener el recipiente cerrado herméticamente.

No cerrar el recipiente estanco al gas.

Almacenarlo en envases bien cerrados en un lugar fresco y seco.

Proteger del calor y de la luz directa del sol.

· 7.3 Usos específicos finales No existen más datos relevantes disponibles.

SECCIÓN 8: Controles de exposición/protección individual

· Instrucciones adicionales para el acondicionamiento de instalaciones técnicas:

Sin datos adicionales, ver punto 7.

· 8.1 Parámetros de control

· Componentes con valores límite admisibles que deben controlarse en el puesto de trabajo:

75-56-9 óxido de propileno

LEP	Valor de larga duración: 4,8 mg/m ³ , 2 ppm
	C1B, M1B, r

· **Indicaciones adicionales:** Como base se han utilizado las listas vigentes en el momento de la elaboración.

· 8.2 Controles de la exposición

· Equipo de protección individual:

· Medidas generales de protección e higiene:

Mantener alejado de alimentos, bebidas y alimentos para animales.

Quitarse de inmediato la ropa ensuciada o impregnada.

Lavarse las manos antes de las pausas y al final del trabajo.

Guardar la ropa protectora por separado.

Evitar el contacto con los ojos.

Evitar el contacto con los ojos y la piel.

· Protección respiratoria:

Si la exposición va a ser breve o de poca intensidad, colocarse una máscara respiratoria. Para una exposición más intensa o de mayor duración, usar un aparato de respiración autónomo.

(se continua en página 5)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 30.10.2018

Revisión: 30.10.2018

Nombre comercial: **PROPYLENE OXIDE, ACS REAGENT**

(se continua en página 4)

· **Protección de manos:**

Guantes de protección

El material del guante deberá ser impermeable y resistente al producto / sustancia / preparado.

Ante la ausencia de tests específicos, no se puede recomendar ningún material específico para guantes de protección contra el producto / preparado / mezcla de sustancias químicas.

Selección del material de los guantes en función de los tiempos de rotura, grado de permeabilidad y degradación.

· **Material de los guantes**

La elección del guante adecuado no depende únicamente del material, sino también de otras características de calidad, que pueden variar de un fabricante a otro.

· **Tiempo de penetración del material de los guantes**

El tiempo de resistencia a la penetración exacto deberá ser pedido al fabricante de los guantes. Este tiempo debe ser respetado.

· **Protección de ojos:**

Gafas de protección herméticas

SECCIÓN 9: Propiedades físicas y químicas

· **9.1 Información sobre propiedades físicas y químicas básicas**· **Datos generales**· **Aspecto:**

Forma: Líquido

Color: Incoloro

· **Olor:** Característico

· **Umbral olfativo:** No determinado.

· **valor pH:** No determinado.

· **Cambio de estado**

Punto de fusión/punto de congelación: -111,9 °C

Punto inicial de ebullición e intervalo de ebullición: 34,3 °C

· **Punto de inflamación:** -37 °C

· **Inflamabilidad (sólido, gas):** No aplicable.

· **Temperatura de ignición:** 430 °C

· **Temperatura de descomposición:** No determinado.

· **Temperatura de auto-inflamación:** No determinado.

· **Propiedades explosivas:** El producto no es explosivo; sin embargo, pueden formarse mezclas explosivas de vapor / aire.

· **Límites de explosión:**

Inferior: 1,9 Vol %

Superior: 15 Vol %

· **Presión de vapor a 20 °C:** 590 hPa

· **Densidad a 20 °C:** 0,8313 g/cm³

(se continua en página 6)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 30.10.2018

Revisión: 30.10.2018

Nombre comercial: **PROPYLENE OXIDE, ACS REAGENT**

(se continua en página 5)

· Densidad relativa	No determinado.
· Densidad de vapor	No determinado.
· Tasa de evaporación:	No determinado.
· Solubilidad en / miscibilidad con agua a 20 °C:	405 g/l
· Coefficiente de reparto: n-octanol/agua:	No determinado.
· Viscosidad:	
Dinámica:	No determinado.
Cinemática:	No determinado.
· Concentración del disolvente:	
VOC (CE)	0,00 %
Contenido de cuerpos sólidos:	0,0 %
· 9.2 Otros datos	No existen más datos relevantes disponibles.

SECCIÓN 10: Estabilidad y reactividad

- **10.1 Reactividad** No existen más datos relevantes disponibles.
- **10.2 Estabilidad química**
- **Descomposición térmica / condiciones que deben evitarse:** No se descompone al emplearse adecuadamente.
- **10.3 Posibilidad de reacciones peligrosas** No se conocen reacciones peligrosas.
- **10.4 Condiciones que deben evitarse** No existen más datos relevantes disponibles.
- **10.5 Materiales incompatibles:** No existen más datos relevantes disponibles.
- **10.6 Productos de descomposición peligrosos:** No se conocen productos de descomposición peligrosos.

SECCIÓN 11: Información toxicológica

· 11.1 Información sobre los efectos toxicológicos

· Toxicidad aguda

Nocivo en caso de ingestión.

Tóxico en contacto con la piel o si se inhala.

· Valores LD/LC50 (dosis letal /dosis letal = 50%) relevantes para la clasificación:

75-56-9 óxido de propileno

Oral	LD50	380 mg/kg (rat)
Dermal	LD50	1.245 mg/kg (rabbit)

- **Efecto estimulante primario:**
- **Corrosión o irritación cutáneas** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Lesiones o irritación ocular graves**
Provoca irritación ocular grave.
- **Sensibilización respiratoria o cutánea**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Efectos CMR (carcinogenicidad, mutagenicidad y toxicidad para la reproducción)**
- **Mutagenicidad en células germinales**
Puede provocar defectos genéticos.
- **Carcinogenicidad**
Puede provocar cáncer.
- **Toxicidad para la reproducción** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Toxicidad específica en determinados órganos (STOT) – exposición única**
Puede irritar las vías respiratorias.

(se continua en página 7)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 30.10.2018

Revisión: 30.10.2018

Nombre comercial: PROPYLENE OXIDE, ACS REAGENT

(se continua en página 6)

- **Toxicidad específica en determinados órganos (STOT) – exposición repetida**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Peligro de aspiración** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.


SECCIÓN 12: Información ecológica

- **12.1 Toxicidad**
- **Toxicidad acuática:** No existen más datos relevantes disponibles.
- **12.2 Persistencia y degradabilidad** No existen más datos relevantes disponibles.
- **12.3 Potencial de bioacumulación** No existen más datos relevantes disponibles.
- **12.4 Movilidad en el suelo** No existen más datos relevantes disponibles.
- **Indicaciones medioambientales adicionales:**
- **Indicaciones generales:**
Nivel de riesgo para el agua 3 (clasificación de listas): muy peligroso para el agua
No dejar que se infiltre en aguas subterráneas, aguas superficiales o en alcantarillados, ni siquiera en pequeñas cantidades.
Una cantidad ínfima vertida en el subsuelo ya representa un peligro para el agua potable.
- **12.5 Resultados de la valoración PBT y mPmB**
- **PBT:** No aplicable.
- **mPmB:** No aplicable.
- **12.6 Otros efectos adversos** No existen más datos relevantes disponibles.

SECCIÓN 13: Consideraciones relativas a la eliminación

- **13.1 Métodos para el tratamiento de residuos**
- **Recomendación:** No debe desecharse con la basura doméstica. No debe llegar al alcantarillado.
- **Embalajes sin limpiar:**
- **Recomendación:** Eliminar conforme a las disposiciones oficiales.
- **Producto de limpieza recomendado:** Agua, eventualmente añadiendo productos de limpieza.

SECCIÓN 14: Información relativa al transporte

- **14.1 Número ONU**
- **ADR, IMDG, IATA** UN1280
- **14.2 Designación oficial de transporte de las Naciones Unidas**
- **ADR** 1280 ÓXIDO DE PROPILENO
- **IMDG, IATA** PROPYLENE OXIDE
- **14.3 Clase(s) de peligro para el transporte**
- **ADR, IMDG, IATA**
- 
- **Clase** 3 Líquidos inflamables
- **Etiqueta** 3
- **14.4 Grupo de embalaje**
- **ADR, IMDG, IATA** 1

(se continua en página 8)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 30.10.2018

Revisión: 30.10.2018

Nombre comercial: PROPYLENE OXIDE, ACS REAGENT

(se continua en página 7)

· 14.5 Peligros para el medio ambiente:	No aplicable.
· 14.6 Precauciones particulares para los usuarios	Atención: Líquidos inflamables
· Número Kemler:	339
· Número EMS:	3-06
· Stowage Category	E
· Stowage Code	SW2 Clear of living quarters.
· 14.7 Transporte a granel con arreglo al anexo II del Convenio MARPOL y el Código IBC	No aplicable.
· Transporte/datos adicionales:	
· ADR	
· Cantidades limitadas (LQ)	0
· Cantidades exceptuadas (EQ)	Código: E3 Cantidad neta máxima por envase interior: 30 ml Cantidad neta máxima por embalaje exterior: 300 ml
· Categoría de transporte	1
· Código de restricción del túnel	D/E
· IMDG	
· Limited quantities (LQ)	0
· Excepted quantities (EQ)	Code: E3 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 300 ml
· "Reglamentación Modelo" de la UNECE:	UN 1280 ÓXIDO DE PROPILENO, 3, I

SECCIÓN 15: Información reglamentaria

- **15.1 Reglamentación y legislación en materia de seguridad, salud y medio ambiente específicas para la sustancia o la mezcla**
 - **Directiva 2012/18/UE**
 - **Sustancias peligrosas nominadas - ANEXO I** No contiene la sustancia.
 - **Categoría Seveso**
P5a LÍQUIDOS INFLAMABLES
H2 TOXICIDAD AGUDA
 - **Cantidad umbral (toneladas) a efectos de aplicación de los requisitos de nivel inferior 10 t**
 - **Cantidad umbral (toneladas) a efectos de aplicación de los requisitos de nivel superior 50 t**
 - **REGLAMENTO (CE) n° 1907/2006 ANEXO XVII** Restricciones: 3, 28, 29
 - **Disposiciones nacionales:**
 - **Indicaciones sobre las limitaciones de trabajo:**
Los empleados no deben exponerse a esta sustancia peligrosa. En casos aislados las autoridades pueden hacer excepciones.
 - **Demás disposiciones, limitaciones y decretos prohibitivos**
- | |
|--|
| · Sustancias altamente preocupantes (SVHC) según REACH, artículo 57 |
| 75-56-9 óxido de propileno |
- **15.2 Evaluación de la seguridad química:** Una evaluación de la seguridad química no se ha llevado a cabo.

ES

(se continua en página 9)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 30.10.2018

Revisión: 30.10.2018

Nombre comercial: PROPYLENE OXIDE, ACS REAGENT

(se continua en página 8)

SECCIÓN 16: Otra información

Los datos se fundan en el estado actual de nuestros conocimientos, pero no constituyen garantía alguna de cualidades del producto y no generan ninguna relación jurídica contractual.

· **Abreviaturas y acrónimos:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 1: Líquidos inflamables – Categoría 1

Acute Tox. 4: Toxicidad aguda – Categoría 4

Acute Tox. 3: Toxicidad aguda – Categoría 3

Eye Irrit. 2: Lesiones oculares graves o irritación ocular – Categoría 2

Muta. 1B: Mutagenicidad en células germinales – Categoría 1B

Carc. 1B: Carcinogenicidad – Categoría 1B

STOT SE 3: Toxicidad específica en determinados órganos (exposición única) – Categoría 3

แผ่นข้อมูลความปลอดภัย

ตาม 1907/2006/EC, มาตรา 31

วันที่พิมพ์ 2018.10.30

การปรับปรุงใหม่ : 2018.10.30

1 การระบุสาร/ การทำ/ และของบริษัท / บริษัทที่เข้าถือครอง

- 1.1 ลักษณะเฉพาะของผลิตภัณฑ์
- ชื่อทางการค้า **PROPYLENE OXIDE, ACS REAGENT**
- เลขที่รายชื่อ 20401, 20411, 20412, 20414
- เลขที่ CAS:
75-56-9
- จำนวน EC:
200-879-2
- เลขที่ EU:
603-055-00-4
- 1.2 สารหรือสารผสมที่เกี่ยวข้องที่ระบุให้ใช้และไม่ควรรให้ใช้ ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- การประยุกต์ใช้สาร/ การทำ เคมีภัณฑ์ห้องทดลอง
- 1.3 รายละเอียดของผู้จัดหาข้อมูลด้านความปลอดภัย
- ผู้ผลิต/ ผู้จัดหา
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- ข้อมูลรายละเอียดเพิ่มเติมหาได้จาก Product safety department
- 1.4 หมายเลขโทรศัพท์ฉุกเฉิน:
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 การระบุสิ่งที่เป็นอันตราย

- 2.1 การจำแนกประเภทของสารหรือสารผสม
- การแบ่งประเภทตามข้อบังคับ (จีซี) เลขที่ 1272/2008



เปลวไฟ

Flam. Liq. 1 H224 ของเหลวและไอที่ไวไฟสูงสุด



หัวกระโหลกและกระดูกไขว้

Acute Tox. 3 H311 มีพิษโดยการสัมผัสกับผิวหนัง

Acute Tox. 3 H331 มีพิษหากสูดหายใจเข้า



สิ่งอันตรายต่อสุขภาพ

Muta. 1B H340 อาจเป็นสาเหตุให้เกิดข้อบกพร่องทางพันธุกรรม

Carc. 1B H350 อาจเป็นเหตุให้เกิดมะเร็ง



Acute Tox. 4 H302 เป็นอันตรายหากกลืนเข้าไป

Eye Irrit. 2 H319 เป็นสาเหตุให้เกิดการระคายเคืองอย่างร้ายแรงที่ตา

(ต่อที่หน้า 2)

-TH

แผ่นข้อมูลความปลอดภัย

ตาม 1907/2006/EC, มาตรา 31

วันที่พิมพ์ 2018.10.30

การปรับปรุงใหม่ : 2018.10.30

ชื่อทางการค้า PROPYLENE OXIDE, ACS REAGENT

(ต่อหน้า 1)

STOT SE 3 H335 อาจเป็นสาเหตุให้เกิดการระคายเคืองต่อระบบหายใจ

- 2.2 องค์ประกอบของฉลาก
- ฉลากตามระเบียบ (EC) เลขที่ 1272/2008 สารได้รับการจัดประเภทและติดฉลากตามข้อบังคับของ CLP
- ภาพสัญลักษณ์สิ่งที่เป็นอันตราย



GHS02 GHS06 GHS08

- สัญญาณคำ อันตราย
- ส่วนประกอบที่ระบุอันตรายบนฉลาก
โพรพิลีนออกไซด์
- ประกาศสิ่งที่เป็นอันตราย
 - H224 ของเหลวและไอที่ไวไฟสูงสุด
 - H302 เป็นอันตรายหากกลืนเข้าไป
 - H311+H331 เป็นพิษ หากมีการสัมผัสกับผิวหนัง หรือ หากมีการสูดดม.
 - H319 เป็นสาเหตุให้เกิดการระคายเคืองอย่างร้ายแรงที่ตา
 - H340 อาจเป็นสาเหตุให้เกิดข้อบกพร่องทางพันธุกรรม
 - H350 อาจเป็นเหตุให้เกิดมะเร็ง
 - H335 อาจเป็นสาเหตุให้เกิดการระคายเคืองต่อระบบหายใจ
- ประกาศการป้องกันระดับระมัดระวัง
 - P210 เก็บให้ห่างจากความร้อน/ ประกายไฟ/เปลวไฟ/ ผิวที่ร้อน - ห้ามสูบบุหรี่
 - P241 ใช้อุปกรณ์ไฟฟ้า/ ระบายอากาศ/ไฟฟ้า/ อุปกรณ์เครื่องใช้ชนิดกันระเบิด
 - P303+P361+P353 หากสัมผัสถูกผิวหนัง (หรือเส้นผม) ถอดเสื้อผ้าที่เปื้อนทั้งหมดทันที ล้างผิวด้วยน้ำ/อาบน้ำ
 - P305+P351+P338 หากเข้าตา : ชะล้างตาด้วยน้ำอย่างระมัดระวังเป็นเวลาหลายๆนาที ถอดคอนแทกซ์เลนส์ถ้ายังอยู่ที่เดิมและสะดวกที่จะทำก็ให้ชะล้างต่อไป
 - P405 เก็บในที่ใส่กุญแจมิด
 - P501 ทิ้งสิ่งที่บรรจุ/ภาชนะที่บรรจุตามกฎหมายของท้องถิ่น/แคว้น/ในประเทศ/ระหว่างประเทศ
- 2.3 อันตรายอื่นๆ
- ผลของ PBT และการประเมิน vPvB
- PBT: ไม่สามารถใช้ได้
- vPvB: ไม่สามารถใช้ได้

3 ส่วนประกอบ/ ข้อมูลรายละเอียดของส่วนผสมต่างๆ

- 3.1 คุณลักษณะทางเคมี: สาร
- การระบุเลขที่ CAS
75-56-9 โพรพิลีนออกไซด์
- เลขที่ระบุ
- จำนวน EC: 200-879-2
- เลขที่ EU: 603-055-00-4

4 มาตรการการปฐมพยาบาลเบื้องต้น

- 4.1 คำอธิบายถึงมาตรการปฐมพยาบาล
- ข้อมูลรายละเอียดทั่วไป
ให้ถอดเสื้อผ้าที่เปื้อนออกทันที
อาการจากพิษอาจเกิดขึ้นหลังจากนั้นหลายชั่วโมงดังนั้นจะต้องเฝ้าติดตามอาการทางการแพทย์อย่างน้อย 48 ชั่วโมงหลังจากอุบัติเหตุ
ให้ถอดอุปกรณ์ช่วยหายใจออกหลังจากที่ถอดเสื้อผ้าที่เปื้อนออกเรียบร้อยแล้วเท่านั้น

(ต่อหน้า 3)

แผนข้อมูลความปลอดภัย

ตาม 1907/2006/EC, มาตรา 31

วันที่พิมพ์ 2018.10.30

การปรับปรุงใหม่ : 2018.10.30

ชื่อทางการค้า PROPYLENE OXIDE, ACS REAGENT

(ต่อที่หน้า 2)

- ในกรณีที่หายใจผิดปกติหรือการหายใจหยุดชะงักให้ใช้อุปกรณ์ช่วยหายใจ
- **หลังจากการสูดหายใจเข้าไป**
หาบริเวณที่มีอากาศบริสุทธิ์หรือให้ออกซิเจนติดต่อแพทย์
ในกรณีที่คนไข้ไม่รู้สึกรู้สึกรู้สึกตัวให้ขนย้ายคนไข้อย่างมั่นคงในท่าตะแคงด้านข้าง
 - **หลังจากการสัมผัสผิวหนัง** ล้างด้วยน้ำและสบู่แล้วฟอกให้ทั่วทันที
 - **หลังจากการสัมผัสถูกตา** ชะตาที่เปิดอยู่ใต้น้ำที่กำลังไหลเป็นเวลาหลายนาทีถ้าอาการไม่ดีขึ้นให้ปรึกษาแพทย์
 - **หลังจากการกลืนเข้าไป**: พบแพทย์โดยทันที
 - **4.2 อาการสำคัญส่วนใหญ่และผลกระทบ ทั้งชนิดเฉียบพลันและค่อยๆ แสดงอาการ**
ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
 - **4.3 ข้อบ่งชี้ของอาการที่ต้องเข้ารับการรักษาจากแพทย์ทันทีและการบำบัดพิเศษที่จำเป็น**
ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้

5 มาตรการการดับเพลิง

- **5.1 สารที่ใช้ดับเพลิง**
- **สารดับเพลิงที่เหมาะสม**
คาร์บอนไดออกไซด์สเปรย์ผงหรือน้ำดับเพลิงขนาดใหญ่ด้วยการฉีดน้ำหรือโฟมแอลกอฮอล์ที่ทนทาน
- **5.2 อันตรายเฉพาะอย่างที่เกิดจากสารหรือส่วนผสม** ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- **5.3 คำแนะนำสำหรับพนักงานดับเพลิง**
- **อุปกรณ์ป้องกันภัย** อุปกรณ์ป้องกันซึ่งเหมาะสำหรับการหายใจทางปาก

6 มาตรการลดอุบัติเหตุ

- **6.1 การป้องกันส่วนบุคคล อุปกรณ์ป้องกัน และขั้นตอนดำเนินการเมื่อเกิดกรณีฉุกเฉิน**
สวมอุปกรณ์ป้องกันภัยกันคนที่ไม่ใช้อุปกรณ์ป้องกันออกไป
- **6.2 การให้ความคุ้มครองสิ่งแวดล้อมล่วงหน้า:**
ทำให้เจือจางด้วยน้ำมากๆ
อย่าปล่อยให้เข้าไปในท่อน้ำทิ้ง/ น้ำบนดินหรือใต้ดิน
- **6.3 วิธีดำเนินการและวัสดุสำหรับการบรรจุและการทำความสะอาด:**
ดูดซับด้วยวัสดุที่สามารถยึดของเหลวไว้ (ทรายไดอะโตไมท์ตัวยึดเกาะกรดตัวยึดทั่วๆ ไปซีลีย)
- **6.4 การอ้างอิงถึงส่วนอื่น**
ดูข้อมูลรายละเอียดเรื่องความปลอดภัยในการขนถ่ายจากส่วนที่ 7
ดูข้อมูลรายละเอียดเรื่องอุปกรณ์ป้องกันส่วนบุคคลจากส่วนที่ 8
ดูข้อมูลรายละเอียดเรื่องการจัดเก็บจากส่วนที่ 13

7 การขนถ่ายและการจัดเก็บ

- **7.1 การป้องกันล่วงหน้าสำหรับการจัดการด้านความปลอดภัย**
ทำให้แน่ใจว่าสถานที่ทำงานมีการระบายอากาศ/ ไอเสียที่ดี
เปิดและถือภาชนะรองรับอย่างระมัดระวัง
ป้องกันการเกิดละอองสารฟุ้ง
- **ข้อมูลรายละเอียดเกี่ยวกับการป้องกันอัคคีภัยและการระเบิด**
ออกห่างจากแหล่งที่ติดไฟอย่าสูบบุหรี่
ป้องกันให้พ้นจากความร้อน
ป้องกันให้พ้นจากประจุไฟฟ้าสถิตย์
เก็บอุปกรณ์ป้องกันสำหรับการช่วยหายใจให้มีพร้อมใช้งาน
- **7.2 เงื่อนไขในการเก็บรักษาอย่างปลอดภัย, รวมถึงสิ่งที่เข้ากันไม่ได้ใดๆ**
- **การจัดเก็บ**
- **ข้อกำหนดที่ต้องปฏิบัติตามสำหรับห้องเก็บและภาชนะบรรจุ** เก็บในบริเวณที่เย็น

(ต่อที่หน้า 4)

TH

แผ่นข้อมูลความปลอดภัย

ตาม 1907/2006/EC, มาตรา 31

วันที่พิมพ์ 2018.10.30

การปรับปรุงใหม่ : 2018.10.30

ชื่อทางการค้า PROPYLENE OXIDE, ACS REAGENT

(ต่อหน้า 3)

- ข้อมูลรายละเอียดด้านการจัดเก็บในสถานที่จัดเก็บรวม ไม่ได้กำหนด
- ข้อมูลรายละเอียดเพิ่มเติมด้านสภาพการจัดเก็บ
 - เก็บโดยปิดผนึกอย่างแน่นหนา
 - อย่าปิดผนึกภาชนะกันแก๊สรั่ว
 - เก็บในที่เย็นสภาพแห้งในภาชนะบรรจุที่ปิดผนึกอย่างดี
 - ป้องกันให้พ้นจากความร้อนและแสงแดดส่อง
- 7.3 การระบุถึงการสิ้นสุดการใช้ ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้

8 การควบคุมการทิ้งในลักษณะเปิด / การป้องกันภัยส่วนบุคคล

- ข้อมูลรายละเอียดเสริมสำหรับการออกแบบสิ่งอำนวยความสะดวกทางเทคนิค ไม่มีข้อมูลนอกเหนือจากนี้ดูรายการ 7
- 8.1 การควบคุมตัวแปร

· ส่วนผสมพร้อมค่าขอบเขตที่ต้องเฝ้าดูในสถานที่ปฏิบัติงาน

75-56-9 โพรพิลีนออกไซด์

PEL (US)	ค่าระยะยาว: 240 mg/m ³ , 100 ppm
REL (US)	See Pocket Guide App. A
TLV (US)	ค่าระยะยาว: 4.8 mg/m ³ , 2 ppm DSEN

- ข้อมูลรายละเอียดเสริม รายการถูกต้องระหว่างที่จัดทำโดยอาศัยการใช้งานเป็นหลัก
- 8.2 การควบคุมการสัมผัส
- อุปกรณ์ป้องกันภัยส่วนบุคคล
- มาตรการการป้องกันและสุขอนามัยทั่วไป
 - เก็บให้ห่างจากสิ่งของที่เป็นอาหารเครื่องดื่มและอาหารสัตว์
 - ให้ถอดเสื้อผ้าที่เปื้อนและเจือปนออกทันที
 - ล้างมือก่อนที่จะหยุดพักและเมื่อสิ้นสุดเวลาทำงาน
 - เก็บชุดป้องกันแยกต่างหาก
 - หลีกเลี่ยงการสัมผัสผิวหนังตา
 - หลีกเลี่ยงการสัมผัสผิวหนังตาและผิวหนัง
- การป้องกันการสูดหายใจเข้าไป
 - ในกรณีที่อยู่เป็นเวลานานหรืออากาศเป็นพิษระดับต่ำใช้หน้ากากกรองเพื่อช่วยหายใจในกรณีที่มีความเข้มข้นสูงหรืออยู่เป็นเวลานานให้ใช้เครื่องป้องกันที่มีอุปกรณ์ช่วยหายใจในตัว
- การป้องกันมือ



ถุงมือป้องกัน

วัสดุของถุงมือจะต้องไม่ให้อากาศผ่านเข้าออกและทนทานต่อผลิตภัณฑ์/ สาร/ การผลิต เนื่องจากขาดการทดสอบจึงไม่มีคำแนะนำสำหรับวัสดุที่ใช้ทำถุงมือสำหรับผลิตภัณฑ์/ การผลิต/ ของผสมเคมี เลือกวัสดุสำหรับถุงมือโดยพิจารณาจากเวลาที่ใช้ในการซึมผ่านอัตราการแพร่และการเสื่อม

- วัสดุที่ใช้ทำถุงมือ
 - การเลือกใช้ถุงมือที่เหมาะสมไม่เพียงแต่ขึ้นอยู่กับวัสดุแต่ยังขึ้นกับมาตรฐานด้านคุณภาพและข้อแตกต่างระหว่างผู้ผลิตแต่ละแห่ง
- เวลาที่ใช้ในการทะลุผ่านวัสดุที่ใช้ทำถุงมือ
 - ผู้ผลิตถุงมือป้องกันจะต้องทดสอบหาเวลาแน่นอนที่ใช้ในการทะลุผ่านและจะต้องมีการตรวจสอบติดตาม

(ต่อหน้า 5)

TH

แผ่นข้อมูลความปลอดภัย

ตาม 1907/2006/EC, มาตรา 31

วันที่พิมพ์ 2018.10.30

การปรับปรุงใหม่ : 2018.10.30

ชื่อทางการค้า PROPYLENE OXIDE, ACS REAGENT

· การป้องกันตา

(ต่อที่หน้า 4)



แว่นตาที่ขอบปิดสนิท

9 คุณสมบัติทางกายภาพและเคมี

· 9.1 ข้อมูลคุณสมบัติพื้นฐานทางกายภาพและเคมี

· ข้อมูลรายละเอียดทั่วไป

· ลักษณะ :

รูปสีฐาน
สี

ของเหลว

ไม่มีสี

· กลิ่น

ลักษณะพิเศษ

· เกณฑ์กลิ่น :

ไม่ได้กำหนดไว้.

· ค่า pH

ไม่ได้กำหนดไว้.

· การเปลี่ยนสภาวะ

จุดหลอมเหลว/ ขอบเขตการหลอมละลาย

-111.9 °C

จุดเดือด/ ขอบเขตการเดือด

34.3 °C

· จุดวาบไฟ

-37 °C

· ความสามารถติดไฟ (ของแข็งแกส)

ไม่สามารถใช้ได้

· อุณหภูมิจุดระเบิด

430 °C

· อุณหภูมิละลายตัว

ไม่ได้กำหนดไว้.

· การเผาไหม้ด้วยตัวเอง

ไม่ได้กำหนดไว้.

· อันตรายจากการระเบิด

ผลิตภัณฑ์ไม่ได้เป็นสารระเบิดอย่างไรก็ตามอาจเป็นไปได้ที่การผสมของอากาศ/ ไอจะทำให้เกิดการ

· ขอบเขตการระเบิด

ขั้นต่ำ

1.9 Vol %

ขั้นสูง

15 Vol %

· ความดันไอ ที่ 20 °C

590 hPa

· ความหนาแน่น ที่ 20 °C

0.8313 g/cm³

· ความหนาแน่นสัมพัทธ์

ไม่ได้กำหนดไว้.

· ความหนาแน่นของไอ

ไม่ได้กำหนดไว้.

· อัตราการระเหย

ไม่ได้กำหนดไว้.

· ความสามารถในการละลายใน / ความสามารถผสมเป็นสา

ละลายเนื้อเดียวทุกส่วนผสมกับ

น้ำ ที่ 20 °C

405 g/l

· สัมประสิทธิ์การแยกตัว (เอ็น-ออกทานอล/น้ำ)

ไม่ได้กำหนดไว้.

· ความหนืด

(ไดนามิค) พลศาสตร์

ไม่ได้กำหนดไว้.

(คิเนมาติก) จลนศาสตร์

ไม่ได้กำหนดไว้.

· ปริมาณส่วนประกอบตัวทำละลาย

VOC (EC)

0.00 %

ส่วนประกอบที่เป็นของแข็ง

0.0 %

(ต่อที่หน้า 6)

แผ่นข้อมูลความปลอดภัย

ตาม 1907/2006/EC, มาตรา 31

วันที่พิมพ์ 2018.10.30

การปรับปรุงใหม่ : 2018.10.30

ชื่อทางการค้า PROPYLENE OXIDE, ACS REAGENT

(ต่อที่หน้า 5)

9.2 ข้อมูลอื่นๆ

ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้

10 ความเสถียรและความสามารถในการทำปฏิกิริยา

- 10.1 ปฏิกิริยาโต้ตอบ ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 10.2 เสถียรภาพทางเคมี
- การสลายตัวด้วยความร้อน / เงื่อนไขที่ต้องหลีกเลี่ยง ไม่มีการสลายตัวถ้าใช้ตามรายละเอียดที่ระบุไว้
- 10.3 ความเป็นไปได้ของการเกิดปฏิกิริยาอันตราย ไม่มีปฏิกิริยาเป็นอันตรายที่รู้จัก
- 10.4 เงื่อนไขเพื่อการหลีกเลี่ยง ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 10.5 วัสดุที่เข้ากันไม่ได้: ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 10.6 อันตรายจากการสลายตัวของผลิตภัณฑ์: ไม่มีสารจากการสลายตัวที่เป็นอันตรายที่รู้จัก

11 ข้อมูลรายละเอียดเกี่ยวกับพิษวิทยา

- 11.1 ข้อมูลเกี่ยวกับผลกระทบทางพิษวิทยา
- ความเป็นพิษอย่างสาหัส:
เป็นอันตรายหากกลืนเข้าไป
เป็นพิษ หากมีการสัมผัสกับผิวหนัง หรือ หากมีการสูดดม.

• การจัดแบ่งตามค่า LD/LC50

75-56-9 โพรพิลีนออกไซด์

ทางปาก	LD50	380 mg/kg (rat)
ทางผิวหนัง	LD50	1,245 mg/kg (rabbit)

- อาการระคายเคืองเบื้องต้น
- บวมผิวหนัง
- ที่ดวงตา
เป็นสาเหตุให้เกิดการระคายเคืองอย่างร้ายแรงที่ตา
- การทำให้แพ้

12 ข้อมูลรายละเอียดเกี่ยวกับนิเวศวิทยา

- 12.1 ความเป็นพิษ
- ความเป็นพิษที่เกี่ยวข้องกับน้ำ ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 12.2 การคงอยู่และการย่อยสลาย ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 12.3 การสะสมทางชีวภาพที่อาจเกิดขึ้น ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- 12.4 การเปลี่ยนแปลงในดิน ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้
- ข้อมูลรายละเอียดเสริมเกี่ยวกับนิเวศวิทยา
- หมายเหตุทั่วไป
เป็นอันตรายต่อน้ำชั้น 3 (กฎข้อบังคับของเยอรมัน)(การประเมินค่าตามรายการ):เป็นอันตรายสูงที่สุดกับน้ำ
อย่าปล่อยให้ผลิตภัณฑ์ไปถึงน้ำผิวดินเส้นทางน้ำหรือระบบระบายน้ำเสียแม้ว่าจะเป็นปริมาณเล็กน้อยเท่านั้น
เป็นอันตรายต่อน้ำดื่มแม้จะร่วงลงในพื้นดินเป็นปริมาณที่น้อยมากก็ตาม
- 12.5 ผลของ PBT และการประเมิน vPvB
- PBT: ไม่สามารถใช้ได้
- vPvB: ไม่สามารถใช้ได้
- 12.6 ผลข้างเคียงอื่นๆ ไม่มีข้อมูลที่เกี่ยวข้องนอกเหนือจากนี้

TH

(ต่อที่หน้า 7)

แผ่นข้อมูลความปลอดภัย

ตาม 1907/2006/EC, มาตรา 31

วันที่พิมพ์ 2018.10.30

การปรับปรุงใหม่ : 2018.10.30


ชื่อทางการค้า PROPYLENE OXIDE, ACS REAGENT

(ต่อหน้า 6)

13 การพิจารณาการกำจัด

- 13.1 วิธีการกำจัดของเสีย
- คำแนะนำ ต้องไม่ทิ้งไปพร้อมกับขยะจากบ้านเรือนอย่าปล่อยให้ผลิตภัณฑ์เข้าถึงระบบระบายน้ำเสีย
- ภาชนะบรรจุที่ยังไม่ได้ล้างทำความสะอาด
- คำแนะนำ การกำจัดจะต้องทำตามกฎระเบียบที่เป็นทางการ
- สารทำความสะอาดที่แนะนำ นำถ้าจำเป็นใช้คู่กับสารทำความสะอาด

14 ข้อมูลรายละเอียดในการขนส่ง

· 14.1 เลขที่ UN · ADR, IMDG, IATA	UN1280
· 14.2 ชื่อการจัดส่งสินค้าที่เหมาะสมของ UN · ADR · IMDG, IATA	1280 PROPYLENE OXIDE PROPYLENE OXIDE
· 14.3 ชั้นเรียนอันตรายจากการขนส่ง · ADR, IMDG, IATA	
	
· ประเภท · ผลากสิ่งที่เป็นอันตราย	3 ของเหลวติดไฟได้ 3
· 14.4 กลุ่มของภาชนะบรรจุ · ADR, IMDG, IATA	I
· 14.5 สิ่งที่เป็นอันตรายต่อสภาพแวดล้อม	ไม่สามารถใช้ได้
· 14.6 การป้องกันพิเศษล่วงหน้าสำหรับผู้ใช้ · รหัสความอันตราย: · หมายเลข EMS · Stowage Category · Stowage Code	คำเตือน !: ของเหลวติดไฟได้ 339 3-06 E SW2 Clear of living quarters.
· 14.7 การขนส่งขนาดใหญ่ตามภาคผนวก 2 ของ MARPOL73/78 และรหัส IBC	ไม่สามารถใช้ได้
· การขนส่ง/ข้อมูลรายละเอียดเสริม	
· ADR · ปริมาณที่จำกัด (LQ) · Excepted quantities (EQ)	0 Code: E3 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 300 ml
· หมวดหมู่การขนส่ง · รหัสควบคุมการผ่านอุโมงค์	1 D/E
· IMDG · Limited quantities (LQ)	0

(ต่อหน้า 8)

TH

แผ่นข้อมูลความปลอดภัย

ตาม 1907/2006/EC, มาตรา 31

วันที่พิมพ์ 2018.10.30

การปรับปรุงใหม่ : 2018.10.30

ชื่อทางการค้า PROPYLENE OXIDE, ACS REAGENT

(ต่อหน้า 7)

· Excepted quantities (EQ)	Code: E3 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 300 ml
· “กฎระเบียบต้นแบบ” ของ UN	UN 1280 PROPYLENE OXIDE, 3, I

15 ข้อมูลรายละเอียดของกฎระเบียบ

- 15.1 ความปลอดภัย สุขภาพและระเบียบ/กฎหมายสิ่งแวดล้อมโดยเฉพาะของสารหรือสารผสม
- บัญชีรายชื่อวัตถุอันตราย

· กรมวิชาการเกษตร

สารที่ไม่ได้อยู่ในรายการ

· กรมประมง

สารที่ไม่ได้อยู่ในรายการ

· กรมปศุสัตว์

สารที่ไม่ได้อยู่ในรายการ

· อาหารและยา

สารที่ไม่ได้อยู่ในรายการ

· กรมโรงงานอุตสาหกรรม

ชนิดที่ 3

· กรมธุรกิจพลังงาน

สารที่ไม่ได้อยู่ในรายการ

· กฎหมายของประเทศ

· ข้อมูลรายละเอียดเกี่ยวกับขอบเขตการใช้งาน

ไม่อนุญาตให้คนงานเข้าไปสัมผัสกับวัตถุอันตรายข้อยกเว้นอาจทำได้เมื่อได้รับอนุญาตจากผู้มีอำนาจในบางกรณี

· 15.2 การประเมินความปลอดภัยของสารเคมี: ไม่ได้ดำเนินการตามการประเมินความปลอดภัยของสารเคมี

16 ข้อมูลรายละเอียดอื่นๆ

ข้อมูลรายละเอียดนี้ใช้ความรู้ปัจจุบันของเราเป็นหลักอย่างไรก็ตามข้อมูลนี้ไม่ใช่การรับประกันจากสถาบันต่อคุณสมบัติเฉพาะของผลิตภัณฑ์และไม่สามารถยืนยันการบังคับใช้ตามกฎหมายที่เกี่ยวข้องกับสัญญา

· คำย่อและชื่อย่อที่ผสมขึ้น

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 1: Flammable liquids – Category 1

Acute Tox. 4: Acute toxicity – Category 4

Acute Tox. 3: Acute toxicity – Category 3

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Muta. 1B: Germ cell mutagenicity – Category 1B

Carc. 1B: Carcinogenicity – Category 1B

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Güvenlik bilgi formu
23 Haziran 2017 tarihli, 30105 sayılı, „Kimyasalların Kaydı, Değerlendirilmesi, İzni Ve Kısıtlanması Hakkında Yönetmelik, Madde 27“ hükümlerine uygun düzenlenmiştir

Baskı tarihi: 30.10.2018

Form No.: 20401

Yeniden düzenleme tarihi: 30.10.2018

Bölüm 1: Maddenin/karışımın ve şirketin/dağıtıcının tanımı

- **1.1 Madde/Karışım kimliği**
- **Ticari adı: PROPYLENE OXIDE, ACS REAGENT**
- **Mal numarası: 20401, 20411, 20412, 20414**
- **CAS - numarası:**
75-56-9
- **EC Numarası:**
200-879-2
- **AT - numarası:**
603-055-00-4
- **1.2 Maddenin veya karışımın ilgili tanımlanmış kullanımları ve tavsiye edilmeyen kullanımları**
Daha başka önemli bilgi mevcut değildir.
- **Maddenin Kullanımı / Hazırlanması** Laboratuarda kullanılan kimyasal maddeler
- **1.3 Güvenlik bilgi formu sağlayıcısının detayları**
- **Üretici / Teslimatı yapan:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Güvenlik hakkında bilgiler veren kesim: Product safety department**
- **1.4 Acil telefon numarası**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

Bölüm 2: Zararların tanımı

- **2.1 Madde veya karışımın sınıflandırılması**
- **Düzenlemeye göre sınıflandırma (EC) No 1272/2008**



GHS02 Alev

Flam. Liq. 1 H224 Çok kolay alevlenir sıvı ve buhar.



GHS06 Kuru kafa ve çapraz kemikler

Acute Tox. 3 H311 Cilt ile teması halinde toksiktir.

Acute Tox. 3 H331 Solunması halinde toksiktir.



GHS08 Sağlık zararlılığı

Muta. 1B H340 Genetik hasara yol açabilir.

Carc. 1B H350 Kansere yol açabilir.

(Devamı sayfa 2 'da)

Güvenlik bilgi formu
23 Haziran 2017 tarihli, 30105 sayılı, „Kimyasalların Kaydı, Değerlendirilmesi, İzni Ve Kısıtlanması Hakkında Yönetmelik, Madde 27“ hükümlerine uygun düzenlenmiştir

Baskı tarihi: 30.10.2018

Form No.: 20401

Yeniden düzenleme tarihi: 30.10.2018

Ticari adı: PROPYLENE OXIDE, ACS REAGENT

(Sayfa 1 'nin devamı)



GHS07

Acute Tox. 4 H302 Yutulması halinde zararlıdır.
 Eye Irrit. 2 H319 Ciddi göz tahrişine yol açar.
 STOT SE 3 H335 Solunum yolu tahrişine yol açabilir.

- **2.2 Etiket bilgileri**
- **Yönetmelik (EC) No 1272/2008'e göre etiketleme**
Madde SEA yönetmeliğine göre sınıflandırılmış ve etiketlenmiştir.
- **Zararlılık İşaretleri**



GHS02 GHS06 GHS08

- **Uyarı Kelimesi Tehlike**
- **Etiketlendirme için tehlikeyi belirleyici bileşenler:**
propilen oksit
- **Zararlılık İfadesi**
 - H224 Çok kolay alevlenir sıvı ve buhar.
 - H302 Yutulması halinde zararlıdır.
 - H311+H331 Ciltle temas ettiğinde veya solunduğunda toksiktir.
 - H319 Ciddi göz tahrişine yol açar.
 - H340 Genetik hasara yol açabilir.
 - H350 Kansere yol açabilir.
 - H335 Solunum yolu tahrişine yol açabilir.
- **Önlem İfadesi**
 - P210 Isıdan/kıvılcımdan/alevden/sıcak yüzeylerden uzak tutun. – Sigara içilmez.
 - P241 Patlamaya dayanıklı elektrikli/havalandırma/tutuşturucu/malzeme kullanın.
 - P303+P361+P353 DERİ (veya saç) İLE TEMAS HALİNDE İSE: Kirlenmiş tüm giysilerinizi hemen kaldırın/çıkartın. Cildinizi su/duş ile durulayın.
 - P305+P351+P338 GÖZ İLE TEMASI HALİNDE: Su ile birkaç dakika dikkatlice durulayın. Takılı ve yapması kolaysa, kontak lensleri çıkartın. Durulamaya devam edin.
 - P405 Kilit altında saklayın.
 - P501 İçeriği/kabı yerel/bölgesel/ulusal/uluslararası mevzuata uygun şekilde bertaraf edin.
- **2.3 Diğer zararlar**
- **PBT ve vPvB değerlendirmesi sonuçları**
- **PBT:** Uygulanamaz.
- **vPvB:** Uygulanamaz.

Bölüm 3: Bileşimi/İçindekiler hakkında bilgi

- **3.1 Maddeler**
- **CAS-No. tanımı**
75-56-9 propilen oksit
- **Teşhis numarası**
- **EC Numarası:** 200-879-2

(Devamı sayfa 3 'da)

Güvenlik bilgi formu
23 Haziran 2017 tarihli, 30105 sayılı, „Kimyasalların Kaydı, Değerlendirilmesi, İzni Ve Kisitlanması Hakkında Yönetmelik, Madde 27“ hükümlerine uygun düzenlenmiştir

Baskı tarihi: 30.10.2018

Form No.: 20401

Yeniden düzenleme tarihi: 30.10.2018

Ticari adı: **PROPYLENE OXIDE, ACS REAGENT**

(Sayfa 2 'nin devamı)

· AT - numarası: 603-055-00-4

Bölüm 4: İlk yardım önlemleri· **4.1 İlk yardım önlemlerinin tanıtımı**· **Genel uyarılar:**

Ürünün bulaşmış olduğu giyim eşyalarını derhal uzaklaştırınız.

Zehirlenme belirtileri birçok saat sonra başgösterebilir. Bu nedenle doktor kontrolü bir kazadan en az 48 saat sonrasına kadar sürdürülmelidir.

Nefes koruyucuyu kirlenmiş giyim eşyaları uzaklaştırıldıktan sonra çıkarınız.

Düzensiz solunum ya da solunumun durması halinde suni solunum.

· **Teneffüs ettikten sonra:**

Temiz hava ya da oksijen verilmeli; doktordan yardım istenmelidir.

Baygınlık halinde yatırılması ve taşınması sabit yan pozisyonunda olmalıdır.

· **Cilde temas ettikten sonra:** Derhal su ve sabunla yıkayarak iyice durulayınız.· **Gözlere temas ettikten sonra:**

Gözleri, gözkapakları açık bir şekilde birkaç dakika süreyle akan suyun altına tutunuz. Sikâyetlerin devam etmesi halinde doktora başvurunuz.

· **Yuttuktan sonra:** Derhal doktora gidiniz.· **4.2 Akut ve sonradan görülen en önemli belirtiler ve etkiler** Daha başka önemli bilgi mevcut değildir.· **4.3 Acil tıbbi müdahale ve özel tedavi gereği için işaretler** Daha başka önemli bilgi mevcut değildir.**Bölüm 5: Yangınla mücadele önlemleri**· **5.1 Yangın söndürücüler**· **Elverişli söndürücü maddeler:**CO₂, söndürme tozu ya da püskürtme su. Daha büyük yangınlarla püskürtme su ve alkole mukavim köpükle mücadele ediniz.· **5.2 Madde veya karışımdan kaynaklanan özel zararlar** Daha başka önemli bilgi mevcut değildir.· **5.3 Yangın söndürme ekipleri için tavsiyeler**· **Özel koruyucu teçhizat:** Nefes koruyucu alet takınız.**Bölüm 6: Kaza sonucu yayılma önlemleri**· **6.1 Kişisel önlemler, koruyucu ekipman ve acil müdahale planı**

Koruyucu teçhizat takınız. Korunmamış şahısları yaklaştırmayınız.

· **6.2 Çevresel önlemler**

Bol suyla sulandırınız.

Kanalizasyona/Yüzeysel suya/Yeraltı suyuna karışmasını önleyiniz.

· **6.3 Kontrol altında tutma ve temizleme için yöntem ve malzemeler**

Sıvı bağlayıcı malzemeyle (Kum, diatomit, asit bağlayıcı, genel bağlayıcı, un halinde testere talaşı) ile eminiz.

Zararlı madde karışmış malzemeyi çöp olarak madde 13 'e göre tasfiye ediniz.

Yeterli havalandırma sağlayınız.

· **6.4 Diğer bölümlere atflar**

Güvenli kullanım ile ilgili bilgileri 7. bölümden alınız.

Kişisel koruyucu teçhizat ile ilgili bilgileri 8. bölümden alınız.

Tasfiye ile ilgili bilgileri 13. bölümden alınız.

TR

(Devamı sayfa 4 'da)

Güvenlik bilgi formu
23 Haziran 2017 tarihli, 30105 sayılı, „Kimyasalların Kaydı, Değerlendirilmesi, İzni Ve Kısıtlanması Hakkında Yönetmelik, Madde 27“ hükümlerine uygun düzenlenmiştir

Baskı tarihi: 30.10.2018

Form No.: 20401

Yeniden düzenleme tarihi: 30.10.2018

Ticari adı: **PROPYLENE OXIDE, ACS REAGENT**

(Sayfa 3 'nin devamı)

Bölüm 7: Elleçleme ve depolama

7.1 Güvenli elleçleme için önlemler

- Çalışılan yerin iyi havalandırılması / havanın iyi emilmesini sağlayınız.
- Kapıları açarken, taşırken ya da yere bırakırken dikkatli davranınız.
- Aerosol (bir gazın içinde sis şeklinde dağılmış sıvı) oluşumunu önleyiniz.

· Yangın ve patlamadan korunmak için uyarılar:

- Tutuşturucu cisimlerden uzak tutunuz - sigara içmeyiniz.
- Aşırı sıcaktan koruyunuz.
- Elektrostatik dolmaya karşı önlemler alınız.
- Nefes koruyucu aletleri hazır bulundurunuz.

7.2 Birlikte bulunmaması gereken maddeleri de içeren güvenli depolama koşulları

· Depolama:

- Depolarda ve kaplarda aranan özellikler: Serin bir yerde muhafaza ediniz.
- Birarada depolama ile ilgili uyarılar: Gerekli değil.
- Depolama şartları ile ilgili diğer bilgiler:
 - Kabı sızdırmayacak şekilde kapalı tutunuz.
 - Kabı hava kaçırmayacak şekilde kapatmayınız.
 - İyi kapatılmış kaplarda serin ve kuru bir şekilde muhafaza ediniz.
 - Sıcaktan ve güneş ışınlarından koruyunuz.
- 7.3 Belirli son kullanımlar Daha başka önemli bilgi mevcut değildir.

Bölüm 8: Maruz kalma kontrolü/kişisel korunma

- Teknik tesisatların şekillendirilmesi ile ilgili ek bilgiler: Başka bilgi yoktur, madde 7 'den bakınız.

8.1 Kontrol parametreleri

- Çalışma yeri ile ilgili, kontrol edilmesi gereken sınır değerleri olan bileşenler:

75-56-9 propilen oksit

BOELV (EU) Uzun zaman değeri: 2,4 mg/m³, 1 ppm

- Ek uyarılar: Düzenlendiği tarihte geçerli listeler esas alınmıştır.

8.2 Maruz kalma kontrolü

· Kişisel koruyucu teçhizat:

· Genel koruyucu ve sıhhi önlemler:

- Gıda maddelerinden, içeceklerden ve yem maddelerinden uzak tutunuz.
- Kirli, sıvı bulaşmış giyim eşyalarını derhal çıkartınız.
- Molalardan önce ve mesai sonunda ellerinizi yıkayınız.
- Koruyucu giyimi ayrı yerde muhafaza ediniz.
- Gözlerinize değmesinden kaçınınız.
- Gözlerinize ve cildinize değmesinden kaçınınız.

· Nefes koruyucu önlemler:

- Kısa süreli ya da düşük ölçüde olumsuz tesir altında kalındığında nefes filtre aleti, yoğun bir şekilde ya da uzun süre etkisi altında kalındığında çevredeki havadan bağımsız olan nefes koruyucu cihaz kullanınız.

· Elleri koruyucu:



Koruyucu eldivenler

(Devamı sayfa 5 'da)

Güvenlik bilgi formu
**23 Haziran 2017 tarihli, 30105 sayılı, „Kimyasalların Kaydı,
 Değerlendirilmesi, İzni Ve Kisitlanması Hakkında Yönetmelik,
 Madde 27“ hükümlerine uygun düzenlenmiştir**

Baskı tarihi: 30.10.2018

Form No.: 20401

Yeniden düzenleme tarihi: 30.10.2018

Ticari adı: PROPYLENE OXIDE, ACS REAGENT

(Sayfa 4 'nin devamı)

Eldiven malzemesi ürün / malzeme / hazırlanan madde ile ilgili olarak geçirmez ve dayanıklı olmalıdır.
 Testlerin yapılmamış olması nedeni ile ürün / hazırlanmış madde / kimyasal karışım için lâzım olan eldiven imalatında kullanılması gereken malzeme ile ilgili herhangi bir tavsiye yapılamamaktadır.
 Eldiven imalatı için kullanılan malzemelerin seçiminde delinme sürelerinin, geçirgenlik oranlarının ve bozulmanın göz önüne alınması gereklidir.

• Eldiven malzemesi

Uygun eldivenin seçiminde yalnız imalat malzemesi değil, aynı zamanda diğer kalite özellikleri de dikkate alınmalıdır ve bunlar imalatçıdan imalatçıya değişiklik göstermektedir.

• Eldiven malzemesine nüfuz etme süresi

Kesin delinme (aşınma) süresi eldiven imalatçısından öğrenilmeli ve bu sürelere riayet edilmelidir.

• Gözleri koruyucu:

Kenarları tam kapatan koruyucu gözlük

Bölüm 9: Fiziksel ve kimyasal özellikler**• 9.1 Temel fiziksel ve kimyasal özellikler hakkında bilgi****• Genel bilgiler****• Görünüm**

Biçim:	Sıvı
Renk:	Renksiz
Koku:	Karakteristik
Koku eşiği	Belirli değil.

• pH - değeri: Belirli değil.

• Durum değişikliği

Erime noktası/donma noktası	-111,9 °C
İlk kaynama noktası ve kaynama aralığı	34,3 °C

• Parlama noktası -37 °C

• Alevlenirlik (katt, gaz) Uygulanamaz.

• Tutuşma ısıtı: 430 °C

• Bozunma sıcaklığı Belirli değil.

• Kendiliğinden tutuşma sıcaklığı Belirli değil.

• Patlayıcı özellikler Ürünün patlama tehlikesi yoktur, ancak patlama tehlikesi olan Buhar/Hava karışımlarının oluşması mümkündür.

• Patlama sınırları:

Alt:	1,9 Vol %
Üst:	15 Vol %

• Buhar basıncı 20 °C'de: 590 hPa

• Yoğunluk 20 °C'de: 0,8313 g/cm³

• Bağıl yoğunluk Belirli değil.

• Buhar yoğunluğu Belirli değil.

• Buharlaştırma hızı Belirli değil.

(Devamı sayfa 6 'da)

Güvenlik bilgi formu
23 Haziran 2017 tarihli, 30105 sayılı, „Kimyasalların Kaydı, Değerlendirilmesi, İzni Ve Kisitlanması Hakkında Yönetmelik, Madde 27“ hükümlerine uygun düzenlenmiştir

Baskı tarihi: 30.10.2018

Form No.: 20401

Yeniden düzenleme tarihi: 30.10.2018

Ticari adı: PROPYLENE OXIDE, ACS REAGENT

(Sayfa 5 'nin devamı)

· Çözülme kabiliyeti / karışma kabiliyeti suyla 20 °C'de:	405 g/l
· Dağılım katsayısı: n-oktanol/su	Belirli değil.
· Akışkanlık Dinamik: Kinematik:	Belirli değil. Belirli değil.
· Çözücü madde oranı: VOC (CE)	0,00 %
· Katı madde oranı:	%0.0
· 9.2 Diğer bilgiler	Daha başka önemli bilgi mevcut değildir.

Bölüm 10: Kararlılık ve tepkime

- **10.1 Tepkime** Daha başka önemli bilgi mevcut değildir.
- **10.2 Kimyasal kararlılık**
- **Termik ayrışma / kaçınılması gereken şartlar:** Usulüne uygun şekilde kullanıldığında ayrışma olmaz.
- **10.3 Zararlı reaksiyon olasılığı** Tehlikeli reaksiyonları duyulmamıştır.
- **10.4 Kaçınılması gereken durumlar** Daha başka önemli bilgi mevcut değildir.
- **10.5 Uyumsuz malzemeler** Daha başka önemli bilgi mevcut değildir.
- **10.6 Zararlı bozunma ürünleri** Ayrışmada oluşan tehlikeli ürünler duyulmamıştır.

Bölüm 11: Toksikolojik bilgiler**11.1 Toksikolojik etkiler hakkında bilgi**

- **Akut toksisite**
Yutulması halinde zararlıdır.
Ciltle temas ettiğinde veya solunduğunda toksiktir.

Sınıflandırma için önemli olan LD/LC50 - değerleri (toksikolojik deney değerleri)**75-56-9 propilen oksit**

Ağızdan	LD50	380 mg/kg (rat)
Ciltten	LD50	1.245 mg/kg (rabbıt)

- **Asli tahriş edici etkisi:**
- **Cilt aşınması/tahrişi** Mevcut bilgilere göre, sınıflandırma kriterlerini karşılamamaktadır.
- **Ciddi göz hasarları/tahrişi**
Ciddi göz tahrişine yol açar.
- **Solunum yolları veya cilt hassaslaşması** Mevcut bilgilere göre, sınıflandırma kriterlerini karşılamamaktadır.
- **Aşağıdaki grupların potansiyel etkilerine dair bilgiler:**
- **CMR-etkileri (kansere üretici, irsiyet değiştirici ve üremeyi tehdit edici etki)**
- **Eşey hücre mutajenitesi**
Genetik hasara yol açabilir.
- **Kanserojenite**
Kansere yol açabilir.
- **Üreme sistemi toksisitesi** Mevcut bilgilere göre, sınıflandırma kriterlerini karşılamamaktadır.
- **BHOT - tek maruz kalma**
Solunum yolu tahrişine yol açabilir.

(Devamı sayfa 7 'da)

Güvenlik bilgi formu
**23 Haziran 2017 tarihli, 30105 sayılı, „Kimyasalların Kaydı,
Değerlendirilmesi, İzni Ve Kisitlanması Hakkında Yönetmelik,
Madde 27“ hükümlerine uygun düzenlenmiştir**

Baskı tarihi: 30.10.2018

Form No.: 20401

Yeniden düzenleme tarihi: 30.10.2018

Ticari adı: **PROPYLENE OXIDE, ACS REAGENT**

(Sayfa 6 'nın devamı)

- **BHOT - tekrarlı maruz kalma** Mevcut bilgilere göre, sınıflandırma kriterlerini karşılamamaktadır.
- **Aspirasyon zararı** Mevcut bilgilere göre, sınıflandırma kriterlerini karşılamamaktadır.


Bölüm 12: Ekolojik bilgiler

- **12.1 Toksikite**
- **Su toksisitesi:** Daha başka önemli bilgi mevcut değildir.
- **12.2 Kalıcılık ve bozunabilirlik** Daha başka önemli bilgi mevcut değildir.
- **12.3 Biyobirikim potansiyeli** Daha başka önemli bilgi mevcut değildir.
- **12.4 Toprakta hareketlilik** Daha başka önemli bilgi mevcut değildir.
- **Diğer ekolojik uyarılar:**
- **Genel uyarılar:**
Suyu tehdit sınıfı 3 (): suyu çok tehdit edicidir
Az miktarlarda olsa bile yeraltı suyuna, duran ve akan sulara ve kanalizasyona ulaşmasını önleyiniz.
En cüzi miktarların bile yeraltına akması halinde içme suyunu tehdit eder.
- **12.5 PBT ve vPvB değerlendirmesinin sonuçları**
- **PBT:** Uygulanamaz.
- **vPvB:** Uygulanamaz.
- **12.6 Diğer olumsuz etkiler** Daha başka önemli bilgi mevcut değildir.

Bölüm 13: Bertaraf etme bilgileri

- **13.1 Atık işleme yöntemleri**
- **Tavsiye:** Ev çöpüyle beraber tasfiye edilmesi yasaktır. Kanalizasyona ulaşmasını önleyiniz.
- **Temizlenmemiş ambalajlar:**
- **Tavsiye:** Tasfiyesi resmi makamların yönetmeliklerine göre yapılır.
- **Tavsiye olunan temizlik maddesi:** Su, gerekirse temizlik maddeleri katmak suretiyle.

Bölüm 14: Taşımacılık bilgisi

- | | |
|---|--|
| · 14.1 UN Numarası
· ADR, IMDG, IATA | UN1280 |
| · 14.2 UN uygun taşımacılık ismi
· ADR
· IMDG, IATA | 1280 PROPİLEN OKSİT
PROPYLENE OXIDE |
| · 14.3 Taşımacılık zararları
· ADR, IMDG, IATA | |
|  | |
| · sınıfı
· Tehlike pusulası | 3 Tutuşabilir sıvı maddeler
3 |
| · 14.4 Ambalaj grubu
· ADR, IMDG, IATA | 1 |

(Devamı sayfa 8 'da)

Güvenlik bilgi formu
23 Haziran 2017 tarihli, 30105 sayılı, „Kimyasalların Kaydı, Değerlendirilmesi, İzni Ve Kısıtlanması Hakkında Yönetmelik, Madde 27“ hükümlerine uygun düzenlenmiştir

Baskı tarihi: 30.10.2018

Form No.: 20401

Yeniden düzenleme tarihi: 30.10.2018

Ticari adı: PROPYLENE OXIDE, ACS REAGENT

(Sayfa 7 'nin devamı)

· 14.5 Çevresel zararlar	Uygulanamaz.
· 14.6 Kullanıcılar için özel önlemler	Uyarı: Tutuşabilir sıvı maddeler
· Kemler (tehlike) sayısı:	339
· EMS - numarası:	3-06
· Stowage Category	E
· Stowage Code	SW2 Clear of living quarters.
· 14.7 MARPOL 73/78 EK II ve IBC Koduna göre Toplu Taşımacılık	Uygulanamaz.
· Nakliyat/diğer bilgiler:	
· ADR	
· Sınırlı Miktarlar	0
· İstisnai miktarlar (EQ)	Kod: E3 İç ambalaj başına maksimum net miktar: 30 ml Dış ambalaj başına maksimum net miktar: 300 ml
· Taşıma kategorisi	1
· Tünel kısıtlama kodu	D/E
· IMDG	
· Limited quantities (LQ)	0
· Excepted quantities (EQ)	Code: E3 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 300 ml
· UN "Model Düzenleme":	UN 1280 PROPİLEN OKSİT, 3, I

Bölüm 15: Mevzuat bilgisi

- **15.1 Madde veya karışım için güvenlik, sağlık ve çevresel düzenlemeler/mevzuat**
- **Ulusal hükümler:**
- **Çalıştırma tahdidi ile ilgili uyarılar:**
İşçiler bu tehlikeli maddenin tesiri altında kalmamalıdır. Münferit vakalarda resmi makam istisnalarında bulunabilir.
- **15.2 Kimyasal güvenlik değerlendirmesi:** Bir Kimyasal güvenlik değerlendirmesi yapılmamıştır.

Bölüm 16: Diğer bilgiler

Veriler bugünkü bilgi durumumuza istinat etmektedir, ancak ürün özellikleri ile ilgili teminat teşkil etmezler ve akdî bir hukuki ilişki tesis etmezler.

· **Kısaltmalar ve:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

(Devamı sayfa 9 'da)

Güvenlik bilgi formu
23 Haziran 2017 tarihli, 30105 sayılı, „Kimyasalların Kaydı,
Değerlendirilmesi, İzni Ve Kisitlanması Hakkında Yönetmelik,
Madde 27“ hükümlerine uygun düzenlenmiştir

Baskı tarihi: 30.10.2018

Form No.: 20401

Yeniden düzenleme tarihi: 30.10.2018

Ticari adı: PROPYLENE OXIDE, ACS REAGENT

(Sayfa 8 'nin devamı)

PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 1: Alevlenir sıvılar – Kategori 1
Acute Tox. 4: Akut toksisite – Kategori 4
Acute Tox. 3: Akut toksisite – Kategori 3
Eye Irrit. 2: Ciddi göz hasarı/göz tahrişi – Kategori 2
Muta. 1B: Eşey hücre mutajenitesi – Kategori 1B
Carc. 1B: Kanserojenite – Kategori 1B
STOT SE 3: Belirli hedef organ toksisitesi (tek maruz kalma) – Kategori 3

TR

Dữ liệu an toàn

Theo điều 1907/2006/EC, khoản 31

Ngày in 2018.10.30

Sửa lại: 2018.10.30

1 Nhận biết các chất hoặc hỗn hợp và các doanh nghiệp

- **Phân loại sản phẩm**
- **Tên giao dịch** **PROPYLENE OXIDE, ACS REAGENT**
- **Mã giao dịch:** 20401, 20411, 20412, 20414
- **Mã CAS:**
75-56-9
- **Số EC:**
200-879-2
- **Mã hiển thị:**
603-055-00-4
- **Các trường hợp được dùng chất, hỗn hợp này và các trường hợp chống chỉ định**
Không có thêm thông tin có liên quan.
- **Hướng dẫn sử dụng** Phòng thí nghiệm hóa chất
- **Thông tin chi tiết của các nhà cung cấp các bảng dữ liệu an toàn**
- **Nhà sản xuất / Nhà phân phối:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Các thông tin chi tiết có thể tìm thấy ở:** Product safety department
- **Số điện thoại khẩn cấp:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Xác định các trường hợp nguy hiểm có thể xảy ra

- **Phân loại chất và hỗn hợp**



cháy flame

Chất lỏng dễ cháy 1 H224 Chất lỏng và hơi rất dễ cháy.



Đầu lâu xương chéo

Nhiễm độc cấp tính 3 H311 Độc hại khi tiếp xúc với da.

Nhiễm độc cấp tính 3 H331 Độc hại nếu hít phải.



Hại sức khỏe

Muta. 1B H340 Có thể gây dị tật di truyền.

Carc. 1B H350 Có thể gây ung thư.



Nhiễm độc cấp tính 4 H302 Có hại nếu nuốt phải

Kích ứng mắt 2 H319 Gây kích ứng nghiêm trọng cho mắt.

(Xem tiếp ở trang 2)

Dữ liệu an toàn

Theo điều 1907/2006/EC, khoản 31

Ngày in 2018.10.30

Sửa lại: 2018.10.30

Tên giao dịch PROPYLENE OXIDE, ACS REAGENT

(Xem tiếp ở trang 1)

- Các phần tử nhãn hiệu
- Các yếu tố trên nhãn GHS Chất này được xếp loại và ghi nhãn theo quy định của GHS
- Các hình biểu thị sự nguy hiểm



GHS02 GHS06 GHS08

- **Từ chỉ dấu hiệu** Nguy hiểm
- **Các thành phần nguy hiểm về việc ghi nhãn:**
propylene oxide
- **Các hướng dẫn về các nguy hiểm**
Chất lỏng và hơi rất dễ cháy.
Có hại nếu nuốt phải
Độc hại nếu tiếp xúc với da hoặc hít phải.
Gây kích ứng nghiêm trọng cho mắt.
Có thể gây dị tật di truyền.
Có thể gây ung thư.
- **Các hướng dẫn an toàn**
Tránh nhiệt/tia lửa/ngọn lửa/bề mặt nóng – Không hút thuốc.
Sử dụng các thiết bị điện/thông gió/chiếu sáng chống nổ.
Nếu tiếp xúc trên da (hoặc tóc): ngay lập tức cởi bỏ tất cả quần áo nhiễm độc. Rửa bằng nước/ vòi hoa sen
NẾU DÍNH MẮT: Rửa thật cẩn thận với nước trong vài phút. Tháo kính áp tròng nếu có và nếu dễ làm.
Sau đó tiếp tục rửa
Nơi cất giữ được khóa lại
Vứt sản phẩm/vỏ hộp theo quy định của địa phương/khu vực/quốc gia/quốc tế.
- **Các dấu hiệu nguy hiểm khác:**
- **Kết quả của đánh giá PBT và vPvB Results**
- **PBT:** Không được áp dụng
- **vPvB:** Không được áp dụng

3 Thành phần / Thông tin của công thức

- **Mô tả tính chất hóa học:** Chất
- **Mô tả mã CAS**
75-56-9 propylene oxide
- **Mã nhận biết**
- **Số EC:** 200-879-2
- **Mã hiển thị :** 603-055-00-4

· SVHC

75-56-9 | propylene oxide

4 Các biện pháp sơ cứu

- **Mô tả về các biện pháp sơ cứu**
- **Hướng dẫn chung:**
Ngay lập tức loại bỏ quần áo bị vấy bẩn bởi sản phẩm
Triệu chứng nhiễm độc có thể xuất hiện sau một vài giờ, nên những quan sát ý tế cần phải được kéo dài ít nhất 48 giờ sau tai nạn.

(Xem tiếp ở trang 3)

Dữ liệu an toàn

Theo điều 1907/2006/EC, khoản 31

Ngày in 2018.10.30

Sửa lại: 2018.10.30

Tên giao dịch PROPYLENE OXIDE, ACS REAGENT

(Xem tiếp ở trang 2)

Chỉ được tháo thiết bị hô hấp sau khi quần áo bảo hộ được cởi bỏ hoàn toàn

Trong trường hợp thở không đều hoặc ngừng hô hấp, phải hô hấp nhân tạo

- **Sau khi hít vào:**

Cung cấp không khí trong lành hoặc oxi, gọi bác sĩ

Trong trường hợp người bệnh bất tỉnh giữ bệnh nhân ở vị trí nằm nghiêng và chuyển đi.

- **Sau khi tiếp xúc với da:** Rửa ngay và thật sạch với nước và xà phòng

- **Sau khi tiếp xúc với mắt:**

Mở mắt và rửa dưới vòi nước trong vài phút, nếu không thấy đỡ thì phải gọi cho bác sĩ ngay

- **Sau khi nuốt phải:** Gọi cho bác sĩ ngay

- **Thông tin dành cho bác sĩ:**

- **Những triệu chứng và tác dụng cấp và chậm quan trọng nhất:**

Không có thông tin liên quan nào khác

- **Các chỉ dẫn về sự giúp đỡ tức thời của bác sĩ và trợ giúp đặc biệt**

Không có thêm thông tin liên quan

5 Các giải pháp chữa cháy

- **Các phương tiện chữa cháy**

- **Các giải pháp chữa cháy thích hợp**

CO₂, bột hay phun bụi nước. Chữa đám cháy lớn hơn phải phun bụi nước hay bột ARC

- **Những nguy cơ gây cháy từ các chất hoặc hỗn hợp** Không có thêm thông tin liên quan

- **Hướng dẫn trong trường hợp chữa cháy**

- **Các thiết bị bảo vệ** Mặt nạ phòng độc

6 Các biện pháp trong trường hợp giải phóng bất ngờ

- **Các biện pháp phòng ngừa cá nhân, thiết bị bảo hộ và thủ tục khẩn cấp**

Đeo thiết bị bảo vệ. Những ai không có thiết bị bảo vệ không được vào khu vực nguy hiểm

- **Các biện pháp bảo vệ môi trường**

Làm loãng đi bằng nhiều nước

Ngăn không cho tràn vào hệ thống nước thải, nước mặt hay nước ngầm

- **Các phương pháp và nguyên liệu dùng cho việc ngăn chặn và làm sạch**

Có thể ngấm vào vật liệu giữ chất lỏng (cát, diatomite, vữa axit, vữa thường, mùn cưa)

Loại bỏ vật liệu bị ô nhiễm theo quy định về chất thải tại mục 13

Đảm bảo thoáng khí

- **Liên hệ đến các phần khác**

Xem phần 7 để biết thông tin về xử lý an toàn

Xem phần 8 để biết thông tin và thiết bị bảo hộ cá nhân

Xem phần 13 để biết thông tin về xả thải

7 Xử lý và lưu trữ

- **Xử lý**

- **Các biện pháp bảo vệ để xử lý an toàn**

Đảm bảo nơi làm việc thoáng khí

Mở và vận chuyển các bình chứa cẩn thận

Tránh hình thành aerosol

- **Thông tin về các biện pháp chống cháy,**

Tránh xa nguồn cháy nổ. Không hút thuốc

Tránh nhiệt

Tránh tích điện

(Xem tiếp ở trang 4)

Dữ liệu an toàn

Theo điều 1907/2006/EC, khoản 31

Ngày in 2018.10.30

Sửa lại: 2018.10.30

Tên giao dịch PROPYLENE OXIDE, ACS REAGENT

Luôn có sẵn thiết bị hỗ trợ hô hấp

(Xem tiếp ở trang 3)

- **Điều kiện cho việc lưu trữ an toàn, bao gồm cả sự không tương thích**
- **Lưu trữ:**
- **Yêu cầu đối với phòng chứa và dụng cụ chứa** Đặt ở nơi thoáng mát
- **Thông tin về lưu trữ đối với một cơ sở lưu trữ thông thường** Không yêu cầu
- **Thông tin thêm về điều kiện lưu trữ**
- Đậy kín bình chứa
- Không dán kín bình chứa kín khí
- Để ở nơi thoáng mát và trong điều kiện được dán kín
- Tránh nhiệt và ánh sáng mặt trời trực tiếp
- **Tác dụng của sản phẩm** Không có thêm thông tin liên quan

8 Kiểm soát các tình huống nguy hiểm / Bảo vệ cá nhân

- **Thông tin thêm về thiết kế các phương tiện kỹ thuật** Không có thêm dữ liệu; xem mục 7
- **Các thông số điều khiển**

- **Các thành phần với giá trị giới hạn cần được yêu cầu giám sát tại nơi làm việc**

75-56-9 propylene oxide

PEL (US)	Giá trị dài hạn: 240 mg/m ³ , 100 ppm
REL (US)	See Pocket Guide App. A
TLV (US)	Giá trị dài hạn: 4.8 mg/m ³ , 2 ppm DSEN
BOELV (EU)	Giá trị dài hạn: 2.4 mg/m ³ , 1 ppm

- **Thông tin bổ sung** Danh sách có hiệu lực trong suốt quá trình thực hiện được sử dụng làm cơ sở
- **Kiểm soát các tình huống nguy hiểm**
- **Các thiết bị an toàn cá nhân**
- **Các biện pháp bảo vệ và vệ sinh tổng thể**
- Tránh xa thực phẩm, đồ uống và đồ ăn cho vật nuôi
- Loại bỏ ngay lập tức tất cả quần áo bị nhiễm bẩn
- Rửa tay trước giờ nghỉ và cuối giờ làm
- Để riêng quần áo bảo hộ
- Tránh tiếp xúc với mắt
- Tránh tiếp xúc với mắt và da
- **Bảo vệ đường hô hấp:**
- Trong trường hợp tiếp xúc ít hoặc ô nhiễm ở mức độ thấp hãy sử dụng mặt nạ phòng độc. Trong trường hợp tiếp xúc nhiều và trong thời gian lâu thì phải sử dụng bình thở ôxi
- **Bảo vệ tay**



Găng tay bảo hộ

Chất liệu làm găng phải chống thấm đối với sản phẩm/chất/chế phẩm

Do không thấy các cuộc thử nghiệm nên không có khuyến cáo về chất liệu làm găng tay cho sản phẩm/chế phẩm/hỗn hợp hóa chất

Chọn chất liệu găng theo số lần và thời gian sử dụng

- **Chất liệu của găng tay**

Việc lựa chọn găng tay phù hợp không chỉ phụ thuộc vào chất liệu, mà còn về nhãn hiệu hơn và chất lượng và rất đa dạng về nhà sản xuất

(Xem tiếp ở trang 5)

Dữ liệu an toàn

Theo điều 1907/2006/EC, khoản 31

Ngày in 2018.10.30

Sửa lại: 2018.10.30

Tên giao dịch PROPYLENE OXIDE, ACS REAGENT

(Xem tiếp ở trang 4)

- **Thời gian xâm nhập của găng tay vật liệu**

Việc phá vỡ chính xác qua thời gian đã được phát hiện bởi các nhà sản xuất găng tay bảo vệ và phải được giám sát

- **Bảo vệ mắt Eye**



Kính bảo hộ dán kín

9 Tính chất vật lý và hóa học

- Thông tin về tính chất vật lý và hóa học cơ bản

- Thông tin tổng quát

- **Diện mạo:**

Hình thức:: Chất lỏng

Màu: Không màu

- **Mùi:** Đặc điểm

- **Ngưỡng mùi:** Không xác định.

- **Độ pH:** Không xác định.

- **Thay đổi trong điều kiện**

Điểm tan / Phạm vi tan -111.9 °C

Điểm sôi / Phạm vi sôi 34.3 °C

- **Điểm bay hơi:** -37 °C

- **Tính dễ cháy (rắn, khí):** Không thể áp dụng.

- **Nhiệt độ cháy:** 430 °C

- **Nhiệt độ phân hủy:** Không xác định.

- **Tự cháy:** Không xác định.

- **Nguy hiểm do cháy nổ:** Sản phẩm không nổ. Nhưng có khả năng hình thành khí, hỗn hợp hơi gây nổ.

- **Giới hạn nổ:**

Dưới: 1.9 Vol %

Trên: 15 Vol %

- **Áp lực hơi: tại 20 °C:** 590 hPa

- **Mật độ tại 20 °C:** 0.8313 g/cm³

- **Mật độ tương đối:** Không xác định.

- **Mật độ của hơi:** Không xác định.

- **Tỉ lệ bay hơi:** Không xác định.

- **Độ hòa tan trong / Độ hòa trộn với:**

Nước tại 20 °C: 405 g/l

- **Sự phân biệt hệ số (n-octanol / Nước):** Không xác định.

- **Độ nhớt:**

Động Không xác định.

Tĩnh Không xác định.

(Xem tiếp ở trang 6)

Dữ liệu an toàn

Theo điều 1907/2006/EC, khoản 31

Ngày in 2018.10.30

Sửa lại: 2018.10.30

Tên giao dịch PROPYLENE OXIDE, ACS REAGENT

(Xem tiếp ở trang 5)

· Thành phần dung môi: VOC (EC):	0.00 %
· Thành phần chất rắn:	0.0 %
· Thông tin khác:	Không có thông tin chi tiết tương ứng

10 Sự ổn định và phản ứng:

- **Phản ứng:** Không có thêm thông tin liên quan
- **Sự ổn định hóa học:**
- **Phân hủy nhiệt / Điều kiện cần tránh::** Không phân hủy nếu được sử dụng theo tiêu chuẩn.
- **Khả năng phản ứng nguy hiểm:** Chưa có phản ứng nguy hiểm nào được biết tới.
- **Các điều kiện cần tránh:** Không có thêm thông tin liên quan
- **Vật liệu không tương thích:** Không có thêm thông tin liên quan.
- **Sản phẩm phân hủy nguy hiểm:** Chưa có sản phẩm phân hủy nào được biết đến.

11 Thông tin độc tính:

- Thông tin về các hiệu ứng độc tính:
- Ngộ độc cấp tính:

- Phân loại liên quan tới giá trị LD/LC50

75-56-9 propylene oxide

Miệng	LD50	380 mg/kg (rat)
Da	LD50	1,245 mg/kg (rabbit)

- **Hiệu ứng kích thích sơ cấp:**
- **Trên da** Không có tác dụng kích ứng.
- **Trên mắt:** Tác dụng kích ứng.
- **Độ nhạy cảm** Không có tác dụng mẫn cảm nào được biết tới.
- **Hiệu ứng CMR (Gây ung thư, gây biến dị, sinh sản độc tính)**
Muta. 1B, Carc. 1B

12 Thông tin sinh thái

- **Độc tính**
- **Thủy sản độc tính:** Không có thêm thông tin liên quan.
- **Sự kiên trì và khả năng nhạt dần:** Không có thêm thông tin liên quan.
- **Hành vi trong các hệ thống môi trường:**
- **Tiềm năng tích lũy sinh học** Không có thêm thông tin liên quan.
- **Tính lưu động trong đất** Không có thêm thông tin liên quan.
- **Bổ sung thông tin sinh thái:**
- **Ghi chú tổng quát:**
Độc hại cho nước loại 3 (quy định của Đức) (Đánh giá theo danh sách): rất độc hại cho nước.
Không để sản phẩm tiếp xúc với nước ngầm, nguồn nước hoặc hệ thống nước thải, kể cả với số lượng nhỏ.
Độc hại với nước uống kể cả với số lượng cực kỳ nhỏ thấm vào đất. .
- **Kết quả của đánh giá PBT và vPvB**
- **PBT PBT:** Không có khả năng ứng dụng.
- **vPvB vPvB:** Không có khả năng ứng dụng.

(Xem tiếp ở trang 7)

Dữ liệu an toàn

Theo điều 1907/2006/EC, khoản 31

Ngày in 2018.10.30

Sửa lại: 2018.10.30

Tên giao dịch PROPYLENE OXIDE, ACS REAGENT


· **Các hiệu ứng bất lợi** Không có thêm thông tin liên quan.

(Xem tiếp ở trang 6)

13 Xem xét xử lý

- **Phương pháp xử lý chất thải**
- **Khuyến nghị**
Không được xử lý cùng rác thải sinh hoạt. Không được bỏ sản phẩm vào hệ thống nước thải.
- **Bao bì bán**
- **Khuyến nghị:** Việc xử lý phải thực hiện theo các quy định của chính quyền.
- **Các chất tẩy rửa được khuyến nghị sử dụng** Nước, nếu cần, kết hợp với chất tẩy rửa.

14 Thông tin vận chuyển

· Mã LHQ (UN) · ADR, IMDG, IATA	UN1280
· Tên vận chuyển theo quy ước của LHQ · ADR · IMDG, IATA	1280 PROPYLENE OXIDE PROPYLENE OXIDE
· vận chuyển các lớp học nguy hiểm · ADR, IMDG, IATA	
	
· lớp · nhãn	3 Các chất lỏng dễ cháy. 3
· Nhóm bao bì · ADR, IMDG, IATA	I
· Các môi trường nguy hiểm:	Không có khả năng ứng dụng..
· Các biện pháp phòng ngừa đặc biệt cho người sử dụng: · Mã nguy hiểm: · Mã EMS: · Stowage Category · Stowage Code	Cảnh báo: Các chất lỏng dễ cháy. 339 3-06 E SW2 Clear of living quarters.
· Vận chuyển với số lượng lớn theo Phụ Lục II của MARPOL73/78 và mã IBC	Không có khả năng ứng dụng.
· Vận chuyển/ Thông tin thêm:	
· ADR · Số lượng giới hạn (LQ) · Excepted quantities (EQ)	0 Code: E3 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 300 ml
· Danh mục vận chuyển · Mã hạn chế đường hầm	1 D/E

(Xem tiếp ở trang 8)

Dữ liệu an toàn

Theo điều 1907/2006/EC, khoản 31

Ngày in 2018.10.30

Sửa lại: 2018.10.30

Tên giao dịch PROPYLENE OXIDE, ACS REAGENT

(Xem tiếp ở trang 7)

<ul style="list-style-type: none"> • IMDG • Limited quantities (LQ) • Excepted quantities (EQ) 	<p style="margin: 0;">0</p> <p style="margin: 0;">Code: E3</p> <p style="margin: 0;">Maximum net quantity per inner packaging: 30 ml</p> <p style="margin: 0;">Maximum net quantity per outer packaging: 300 ml</p>
<ul style="list-style-type: none"> • Mẫu chuẩn của LHQ: 	<p style="margin: 0;">UN 1280 PROPYLENE OXIDE, 3, I</p>

15 Thông tin quy định:

- **An toàn, sức khỏe và các quy định, pháp luật về môi trường cho các chất và hỗn hợp**

- **Kho hóa chất và chất hóa học của Philippin**

Chất được liệt kê.

- **Kho chất hóa học của Australia**

Chất được liệt kê.

- **Lập kế hoạch cho thuốc và chất độc theo mẫu chuẩn**

S7

- **Các yếu tố trên nhãn GHS** Chất này được xếp loại và ghi nhãn theo quy định của GHS
- **Các hình biểu thị sự nguy hiểm**



GHS02 GHS06 GHS08

- **Từ chỉ dấu hiệu** Nguy hiểm

- **Các thành phần nguy hiểm về việc ghi nhãn:**

propylene oxide

- **Các hướng dẫn về các nguy hiểm**

Chất lỏng và hơi rất dễ cháy.

Có hại nếu nuốt phải

Độc hại nếu tiếp xúc với da hoặc hít phải.

Gây kích ứng nghiêm trọng cho mắt.

Có thể gây dị tật di truyền.

Có thể gây ung thư.

- **Các hướng dẫn an toàn**

Tránh nhiệt/tia lửa/ngọn lửa/bề mặt nóng – Không hút thuốc.

Sử dụng các thiết bị điện/thông gió/chiếu sáng chống nổ.

Nếu tiếp xúc trên da (hoặc tóc): ngay lập tức cởi bỏ tất cả quần áo nhiễm độc. Rửa bằng nước/ vòi hoa sen

NẾU DÍNH MẮT: Rửa thật cẩn thận với nước trong vài phút. Tháo kính áp tròng nếu có và nếu dễ làm.

Sau đó tiếp tục rửa

Nơi cất giữ được khóa lại

Vứt sản phẩm/vỏ hộp theo quy định của địa phương/khu vực/quốc gia/quốc tế.

- **Quy định quốc gia**

- **Thông tin về giới hạn sử dụng**

Các công nhân không được phép tiếp xúc với vật liệu nguy hiểm này. Trong những trường hợp nhất định, các nhà sản xuất có thể đưa ra những ngoại lệ.

(Xem tiếp ở trang 9)

Dữ liệu an toàn
Theo điều 1907/2006/EC, khoản 31

Ngày in 2018.10.30

Sửa lại: 2018.10.30

Tên giao dịch PROPYLENE OXIDE, ACS REAGENT

· **Đánh giá an toàn hóa chất:** Đánh giá an toàn hóa chất chưa được tiến hành.

(Xem tiếp ở trang 8)

16 Thông tin khác

Thông tin này dựa trên kiến thức hiện nay của chúng tôi. Tuy nhiên, điều này không đảm bảo cho bất cứ tính chất cụ thể nào của sản phẩm và không thiết lập mối quan hệ hợp tác có giá trị pháp lý nào.

· **Chữ viết tắt hoặc Viết tắt chữ cái đầu:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Chất lỏng dễ cháy 1: Flammable liquids – Category 1

Nhiễm độc cấp tính 4: Acute toxicity – Category 4

Nhiễm độc cấp tính 3: Acute toxicity – Category 3

Kích ứng mắt 2: Serious eye damage/eye irritation – Category 2

Muta. 1B: Germ cell mutagenicity – Category 1B

Carc. 1B: Carcinogenicity – Category 1B