

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/13/2016

Reviewed on 04/13/2016

1 Identification

- **Product identifier**
- **Trade name:** LOWICRYL K4M MONOMER B
- **Article number:** 14330(B)
- **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: info@emsdiasum.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**



GHS06 Skull and crossbones

Acute Tox. 2 H310 Fatal in contact with skin.



GHS05 Corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H332 Harmful if inhaled.

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Label elements**

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

- **Hazard pictograms**



GHS05



GHS06



GHS07

- **Signal word** Danger

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

2-hydroxyethyl acrylate
mequinol

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Trade name: **LOWICRYL K4M MONOMER B**

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- **Hazard statements**

Harmful if swallowed or if inhaled.
 Fatal in contact with skin.
 Causes severe skin burns and eye damage.
 May cause an allergic skin reaction.

- **Precautionary statements**

Do not breathe dusts or mists.
 Wear protective gloves / protective clothing.
 Wear eye protection / face protection.
 Do not get in eyes, on skin, or on clothing.
 Wash thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Use only outdoors or in a well-ventilated area.
 Contaminated work clothing must not be allowed out of the workplace.
 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.
 Immediately call a POISON CENTER/doctor.
 Specific treatment (see on this label).
 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 If skin irritation or rash occurs: Get medical advice/attention.
 If swallowed: Rinse mouth. Do NOT induce vomiting.
 Take off immediately all contaminated clothing and wash it before reuse.
 Store locked up.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

HEALTH	4	Health = 4
FIRE	1	Fire = 1
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: Mixtures**

- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

27813-02-1	methacrylic acid, monoester with propane-1,2-diol	50-100%
818-61-1	2-hydroxyethyl acrylate	25-50%

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Trade name: LOWICRYL K4M MONOMER B

150-76-5 mequinol

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2,5-10%

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.
In case of irregular breathing or respiratory arrest provide artificial respiration.
- **After inhalation:**
Supply fresh air and to be sure call for a 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. Then consult a doctor.
- **After swallowing:**
Immediately call a doctor.
Drink copious amounts of water and provide fresh air. 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.
- **Environmental precautions:** Inform respective authorities in case of seepage into water course or sewage system.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.
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.

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Trade name: **LOWICRYL K4M MONOMER B**

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7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **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:**

150-76-5 mequinol

REL Long-term value: 5 mg/m³TLV Long-term value: 5 mg/m³

- **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 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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **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.

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Trade name: **LOWICRYL K4M MONOMER B**

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· **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:	Recognizable
Odor threshold:	Not determined.

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

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	> 246 °C (> 475 °F)

· **Flash point:** > 93 °C (> 199 °F)· **Flammability (solid, gaseous):** Not flammable.· **Ignition temperature:****Decomposition temperature:** Not determined.· **Auto igniting:** Product is not selfigniting.· **Danger of explosion:** Product does not present an explosion hazard.· **Explosion limits:**

Lower:	Not determined.
Upper:	Not determined.

· **Vapor pressure:** Not determined.· **Density:** Not determined.· **Relative density** Not determined.· **Vapor density** Not determined.· **Evaporation rate** Not determined.· **Solubility in / Miscibility with****Water:** Not miscible or difficult to mix.· **Partition coefficient (n-octanol/water):** Not determined.· **Viscosity:**

Dynamic:	Not determined.
Kinematic:	Not determined.

· **Solvent content:**

Organic solvents:	0.0 %
VOC content:	0.0 g/l / 0.00 lb/gl

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· **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:**
- **Primary irritant effect:**
- **on the skin:** *Strong caustic effect on skin and mucous membranes.*
- **on the eye:** *Strong caustic effect.*
- **Sensitization:** *Sensitization possible through skin contact.*
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful
Corrosive
Irritant
Very toxic
Danger through skin absorption.
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
- **Carcinogenic categories**

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

None of the ingredients is listed.

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

None of the ingredients is 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.*
- **Ecotoxicological effects:**
- **Remark:** *Very toxic for fish*

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Trade name: **LOWICRYL K4M MONOMER B**

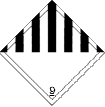

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- **Additional ecological information:**
- **General notes:**
*Must not reach bodies of water or drainage ditch undiluted or unneutralized.
 Also poisonous for fish and plankton in water bodies.
 Very toxic for aquatic organisms*
- **Results of PBT 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.

14 Transport information

<ul style="list-style-type: none"> · UN-Number · DOT, ADR, IMDG, IATA 	UN2810	
<ul style="list-style-type: none"> · UN proper shipping name · DOT · ADR · IMDG · IATA 	<i>Toxic, liquids, organic, n.o.s.</i> 2810 <i>Toxic, liquids, organic, n.o.s. (2-hydroxyethyl acrylate), ENVIRONMENTALLY HAZARDOUS</i> <i>TOXIC LIQUID, ORGANIC, N.O.S. (2-hydroxyethyl acrylate), MARINE POLLUTANT</i> <i>Toxic, liquids, organic, n.o.s. (2-hydroxyethyl acrylate)</i>	
<ul style="list-style-type: none"> · Transport hazard class(es) · DOT, IATA 	<div style="text-align: center;">  </div> <ul style="list-style-type: none"> · Class · Label 	6.1 Toxic substances 9
<ul style="list-style-type: none"> · ADR, IMDG 	<div style="text-align: center;">  </div> <ul style="list-style-type: none"> · Class · Label 	6.1 Toxic substances 9
<ul style="list-style-type: none"> · Packing group · DOT, ADR, IMDG, IATA 	III	

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· Environmental hazards:	Product contains environmentally hazardous substances: 2-hydroxyethyl acrylate
· Marine pollutant:	Symbol (fish and tree)
· Special marking (ADR):	Symbol (fish and tree)
· Special precautions for user	Warning: Toxic substances
· Danger code (Kemler):	90
· EMS Number:	F-A,S-A
· Stowage Category	A
· 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:	

· ADR	
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml

· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 2810 TOXIC, LIQUIDS, ORGANIC, N.O.S. (2-HYDROXYETHYL ACRYLATE), 9, III, ENVIRONMENTALLY HAZARDOUS

15 Regulatory information

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

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

None of the ingredients is listed.

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

None of the ingredients is listed.

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

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

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Trade name: LOWICRYL K4M MONOMER B

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· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

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

None of the ingredients is listed.

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

· **Hazard pictograms**



GHS05 GHS06 GHS07

· **Signal word** *Danger*

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

2-hydroxyethyl acrylate
mequinol

· **Hazard statements**

Harmful if swallowed or if inhaled.

Fatal in contact with skin.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

· **Precautionary statements**

Do not breathe dusts or mists.

Wear protective gloves / protective clothing.

Wear eye protection / face protection.

Do not get in eyes, on skin, or on clothing.

Wash thoroughly after handling.

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

Use only outdoors or in a well-ventilated area.

Contaminated work clothing must not be allowed out of the workplace.

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.

Immediately call a POISON CENTER/doctor.

Specific treatment (see on this label).

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

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

If skin irritation or rash occurs: Get medical advice/attention.

If swallowed: Rinse mouth. Do NOT induce vomiting.

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

Store locked up.

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

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

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Trade name: LOWICRYL K4M MONOMER B

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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** 04/13/2016 / -

· **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

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified 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)

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

Acute Tox. 4: Acute toxicity, Hazard Category 4

Acute Tox. 2: Acute toxicity, Hazard Category 2

Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

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

Printing date 13.04.2016

Revision: 13.04.2016

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

· **Product identifier**

· **Trade name:** LOWICRYL K4M MONOMER B

· **Article number:** 14330(B)

· **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: info@emsdiasum.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)

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 Hazards identification

· **Classification of the substance or mixture**



GHS06 skull and crossbones

Acute Tox. 2 H310 Fatal in contact with skin.



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H332 Harmful if inhaled.

Skin Sens. 1 H317 May cause an allergic skin reaction.

(Contd. on page 2)

AU

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 13.04.2016

Revision: 13.04.2016

Trade name: **LOWICRYL K4M MONOMER B**

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- **Label elements**
- **GHS label elements** The product is classified and labelled according to the Globally Harmonised System (GHS).
- **Hazard pictograms**



GHS05 GHS06 GHS07

- **Signal word** *Danger*
- **Hazard-determining components of labelling:**
2-hydroxyethyl acrylate
mequinol
- **Hazard statements**
Harmful if swallowed or if inhaled.
Fatal in contact with skin.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
- **Precautionary statements**
Do not breathe dusts or mists.
Wear protective gloves / protective clothing.
Wear eye protection / face protection.
Do not get in eyes, on skin, or on clothing.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
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.
Immediately call a POISON CENTER/doctor.
Specific treatment (see on this label).
IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
If skin irritation or rash occurs: Get medical advice/attention.
IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
Take off immediately all contaminated clothing and wash it before reuse.
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:** *Mixtures*
- **Description:** *Mixture of substances listed below with nonhazardous additions.*

· Dangerous components:		
27813-02-1	methacrylic acid, monoester with propane-1,2-diol	50-100%
818-61-1	2-hydroxyethyl acrylate	25-50%

(Contd. on page 3)

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Revision: 13.04.2016

Trade name: LOWICRYL K4M MONOMER B

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150-76-5 mequinol

2,5-10%

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

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.

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

· **After inhalation:**

Supply fresh air and to be sure call for a 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. Then consult a doctor.

· **After swallowing:**

Call for a doctor immediately.

Drink plenty of water and provide fresh air. 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:** Inform respective authorities in case of seepage into water course or sewage system.

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

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

Use neutralising agent.

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.

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Printing date 13.04.2016

Revision: 13.04.2016

Trade name: **LOWICRYL K4M MONOMER B**

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7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **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:**

150-76-5 mequinol

NES	Long-term value: 5 mg/m ³
	Sen

- **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 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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **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

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· **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:	Recognisable
· Odour threshold:	Not determined.

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

· Melting point/Melting range:	Undetermined.
· Boiling point/Boiling range:	> 246 °C

· **Flash point:** > 93 °C· **Flammability (solid, gaseous):** Not applicable.· **Ignition temperature:**· **Decomposition temperature:** Not determined.· **Self-igniting:** Product is not selfigniting.· **Danger of explosion:** Product does not present an explosion hazard.· **Explosion limits:**

· Lower:	Not determined.
· Upper:	Not determined.

· **Vapour pressure:** Not determined.· **Density:** Not determined.· **Relative density** Not determined.· **Vapour density** Not determined.· **Evaporation rate** Not determined.· **Solubility in / Miscibility with water:**

Not miscible or difficult to mix.

· **Partition coefficient (n-octanol/water):** Not determined.· **Viscosity:**

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

· **Solvent content:**

· Organic solvents:	0.0 %
· VOC (EC)	0.00 %

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· **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**
- **Primary irritant effect:**
- **Skin corrosion/irritation** *Strong caustic effect on skin and mucous membranes.*
- **Serious eye damage/irritation** *Strong caustic effect.*
- **Respiratory or skin sensitisation** *Sensitisation possible through skin contact.*
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Harmful
Corrosive
Irritant
Very toxic
Danger through skin adsorption.
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

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.*
- **Ecotoxicological effects:**
- **Remark:** *Very toxic for fish*
- **Additional ecological information:**
- **General notes:**
Must not reach sewage water or drainage ditch undiluted or unneutralised.
Also poisonous for fish and plankton in water bodies.
Very toxic for aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** *Not applicable.*
- **vPvB:** *Not applicable.*

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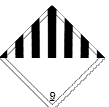

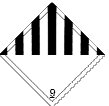
Trade name: **LOWICRYL K4M MONOMER B**

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· **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.

14 Transport information

· UN-Number · ADG, IMDG, IATA	UN2810
· UN proper shipping name · ADG · IMDG · IATA	2810 TOXIC LIQUID, ORGANIC, N.O.S. (2-hydroxyethyl acrylate), ENVIRONMENTALLY HAZARDOUS TOXIC LIQUID, ORGANIC, N.O.S. (2-hydroxyethyl acrylate), MARINE POLLUTANT Toxic, liquids, organic, n.o.s. (2-hydroxyethyl acrylate)
· Transport hazard class(es) · ADG, IMDG	
 	
· Class · Label	6.1 Toxic substances. 9
· IATA	
	
· Class · Label	6.1 Toxic substances. 9
· Packing group · ADG, IMDG, IATA	III
· Environmental hazards: · Marine pollutant: · Special marking (ADG):	Product contains environmentally hazardous substances: 2-hydroxyethyl acrylate Symbol (fish and tree) Symbol (fish and tree)
· Special precautions for user · Danger code (Kemler): · EMS Number: · Stowage Category	Warning: Toxic substances. 90 F-A,S-A A

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· 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	5L
· Limited quantities (LQ)	Code: E1
· Excepted quantities (EQ)	Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· Transport category	3
· Tunnel restriction code	E
· IMDG	5L
· Limited quantities (LQ)	Code: E1
· Excepted quantities (EQ)	Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. (2-HYDROXYETHYL ACRYLATE), 9, III, ENVIRONMENTALLY HAZARDOUS

15 Regulatory information

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

· **Australian Inventory of Chemical Substances**

All ingredients are listed.

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

None of the ingredients is listed.

· **GHS label elements** The product is classified and labelled according to the Globally Harmonised System (GHS).

· **Hazard pictograms**



GHS05 GHS06 GHS07

· **Signal word** *Danger*

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

2-hydroxyethyl acrylate
mequinol

· **Hazard statements**

Harmful if swallowed or if inhaled.
Fatal in contact with skin.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.

· **Precautionary statements**

Do not breathe dusts or mists.
Wear protective gloves / protective clothing.
Wear eye protection / face protection.

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*Do not get in eyes, on skin, or on clothing.**Wash thoroughly after handling.**Do not eat, drink or smoke when using this product.**Use only outdoors or in a well-ventilated area.**Contaminated work clothing should not be allowed out of the workplace.**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.**Immediately call a POISON CENTER/doctor.**Specific treatment (see on this label).**IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.**IF INHALED: Remove person to fresh air and keep comfortable for breathing.**If skin irritation or rash occurs: Get medical advice/attention.**IF SWALLOWED: rinse mouth. Do NOT induce vomiting.**Take off immediately all contaminated clothing and wash it before reuse.**Store locked up.**Dispose of contents/container in accordance with local/regional/national/international regulations.***· Directive 2012/18/EU****· Named dangerous substances - ANNEX I** None of the ingredients is listed.**· Seveso category****H2 ACUTE TOXIC****E1 Hazardous to the Aquatic Environment****· Qualifying quantity (tonnes) for the application of lower-tier requirements 50 t****· Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t****· 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**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**VOC: Volatile Organic Compounds (USA, EU)**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Acute Tox. 4: Acute toxicity, Hazard Category 4**Acute Tox. 2: Acute toxicity, Hazard Category 2**Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B**Skin Sens. 1: Sensitisation - Skin, Hazard Category 1*

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1 Identification

- **Product identifier**
- **Trade name:** LOWICRYL K4M MONOMER B
- **Article number:** 14330(B)
- **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: info@emsdiasum.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**



GHS06 Skull and crossbones

Acute Toxicity (Dermal) – Category 2 H310 Fatal in contact with skin.



GHS05 Corrosion

Skin Corrosion - Category 1B H314 Causes severe skin burns and eye damage.



GHS07

Acute Toxicity (Oral) - Category 4 H302 Harmful if swallowed.

Acute Toxicity (Inhalation) - Category 4 H332 Harmful if inhaled.

Skin Sensitizer - Category 1 H317 May cause an allergic skin reaction.

- **Label elements**

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

- **Hazard pictograms**



GHS05



GHS06



GHS07

- **Signal word** Danger

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

2-hydroxyethyl acrylate
mequinol

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- **Hazard statements**

Harmful if swallowed or if inhaled.
 Fatal in contact with skin.
 Causes severe skin burns and eye damage.
 May cause an allergic skin reaction.

- **Precautionary statements**

Do not breathe dust/fume/gas/mist/vapours/spray.
 Wear protective gloves/protective clothing/eye protection/face protection.
 Do not get in eyes, on skin, or on clothing.
 Wash thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Use only outdoors or in a well-ventilated area.
 Contaminated work clothing should not be allowed out of the workplace.
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
 Continue rinsing.
 Immediately call a POISON CENTER/doctor.
 Specific measures (see on this label).
 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 Wash contaminated clothing before reuse.
 IF ON SKIN: Gently wash with plenty of soap and water.
 If skin irritation or rash occurs: Get medical advice/attention.
 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 Take off contaminated clothing and wash it before reuse.
 Store locked up.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Hazard description:**

- **WHMIS-symbols:**

D1A - Very toxic material causing immediate and serious toxic effects
 D2B - Toxic material causing other toxic effects
 E - Corrosive material



- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

HEALTH	4	Health = 4
FIRE	1	Fire = 1
REACTIVITY	0	Reactivity = 0

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

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· **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

150-76-5 mequinol

1-5% w/w

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.
In case of irregular breathing or respiratory arrest provide artificial respiration.
- **After inhalation:**
Supply fresh air and to be sure call for a 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. Then consult a doctor.
- **After swallowing:**
Immediately call a doctor.
Drink copious amounts of water and provide fresh air. 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.
- **Environmental precautions:** Inform respective authorities in case of seepage into water course or sewage system.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.

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- **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.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **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:**

150-76-5 mequinol

EL Long-term value: 5 mg/m³

EV Long-term value: 5 mg/m³

- **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 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

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- **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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **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:	Recognizable
Odor threshold:	Not determined.

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

- **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	> 246 °C

- **Flash point:** > 93 °C

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

- **Ignition temperature:**

Decomposition temperature: Not determined.

- **Auto igniting:** Product is not selfigniting.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits:**

Lower:	Not determined.
Upper:	Not determined.

- **Vapor pressure:** Not determined.

Density:	Not determined.
Relative density	Not determined.
Vapor density	Not determined.
Evaporation rate	Not determined.

- **Solubility in / Miscibility with**

Water: Not miscible or difficult to mix.

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

- **Viscosity:**

Dynamic: Not determined.

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Kinematic:	Not determined.
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Solvent content:	
-------------------------	--

Organic solvents:	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:**
- **Primary irritant effect:**
- **on the skin:** Strong caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful
Corrosive
Irritant
Very toxic
Danger through skin absorption.
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
- **Carcinogenic categories**

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

	None of the ingredients is listed.
--	------------------------------------

NTP (National Toxicology Program)	
--	--

	None of the ingredients is listed.
--	------------------------------------

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

	None of the ingredients is 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.

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- **Ecotoxicological effects:**
- **Remark:** Very toxic for fish
- **Additional ecological information:**
- **General notes:**
Must not reach bodies of water or drainage ditch undiluted or unneutralized.
Also poisonous for fish and plankton in water bodies.
Very toxic for aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

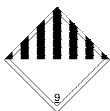
13 Disposal considerations

- **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.

14 Transport information

- | | |
|--|---|
| <ul style="list-style-type: none"> · UN-Number · DOT, TDG, IMDG, IATA | UN2810 |
| <ul style="list-style-type: none"> · UN proper shipping name · DOT · TDG · IMDG · IATA | Toxic, liquids, organic, n.o.s.
2810 Toxic, liquids, organic, n.o.s. (2-hydroxyethyl acrylate),
ENVIRONMENTALLY HAZARDOUS
TOXIC LIQUID, ORGANIC, N.O.S. (2-hydroxyethyl acrylate),
MARINE POLLUTANT
Toxic, liquids, organic, n.o.s. (2-hydroxyethyl acrylate) |

- **Transport hazard class(es)**
- **DOT, IATA**



- **Class** 6.1 Toxic substances
- **Label** 9
- **TDG, IMDG**



- **Class** 6.1 Toxic substances
- **Label** 9

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· Packing group · DOT, TDG, IMDG, IATA	III
· Environmental hazards: · Marine pollutant: · Special marking (TDG):	Product contains environmentally hazardous substances: 2-hydroxyethyl acrylate Symbol (fish and tree) Symbol (fish and tree)
· Special precautions for user · Danger code (Kemler): · EMS Number: · Stowage Category · Stowage Code	Warning: Toxic substances 90 F-A,S-A A SW2 Clear of living quarters.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· TDG · Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 2810 TOXIC, LIQUIDS, ORGANIC, N.O.S. (2-HYDROXYETHYL ACRYLATE), 9, III, ENVIRONMENTALLY HAZARDOUS

15 Regulatory information

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

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

None of the ingredients is listed.

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

None of the ingredients is listed.

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

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

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· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

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

None of the ingredients is listed.

· **Canadian substance listings:**

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

All ingredients are listed.

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

None of the ingredients is listed.

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

818-61-1 2-hydroxyethyl acrylate

142-09-6 Hexylmethacrylate

150-76-5 mequinol

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

· **Hazard pictograms**



GHS05 GHS06 GHS07

· **Signal word** *Danger*

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

2-hydroxyethyl acrylate

mequinol

· **Hazard statements**

*Harmful if swallowed or if inhaled.**Fatal in contact with skin.**Causes severe skin burns and eye damage.**May cause an allergic skin reaction.*

· **Precautionary statements**

*Do not breathe dust/fume/gas/mist/vapours/spray.**Wear protective gloves/protective clothing/eye protection/face protection.**Do not get in eyes, on skin, or on clothing.**Wash thoroughly after handling.**Do not eat, drink or smoke when using this product.**Use only outdoors or in a well-ventilated area.**Contaminated work clothing should not be allowed out of the workplace.**IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].**IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.**Continue rinsing.**Immediately call a POISON CENTER/doctor.**Specific measures (see on this label).*

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Trade name: LOWICRYL K4M MONOMER B

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IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Wash contaminated clothing before reuse.
IF ON SKIN: Gently wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
Take off contaminated clothing and wash it before reuse.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.
 · **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** 04/13/2016 / -
- **Abbreviations and acronyms:**
 - IMDG: International Maritime Code for Dangerous Goods
 - DOT: US Department of Transportation
 - IATA: International Air Transport Association
 - ACGIH: American Conference of Governmental Industrial Hygienists
 - EINECS: European Inventory of Existing Commercial Chemical Substances
 - ELINCS: European List of Notified Chemical Substances
 - CAS: Chemical Abstracts Service (division of the American Chemical Society)
 - NFPA: National Fire Protection Association (USA)
 - HMIS: Hazardous Materials Identification System (USA)
 - WHMIS: Workplace Hazardous Materials Information System (Canada)
 - PBT: Persistent, Bioaccumulative and Toxic
 - vPvB: very Persistent and very Bioaccumulative
 - NIOSH: National Institute for Occupational Safety
 - OSHA: Occupational Safety **Health**
 - Acute Toxicity (Oral) - Category 4: Acute toxicity, Hazard Category 4**
 - Acute Toxicity (Dermal) - Category 2: Acute toxicity, Hazard Category 2**
 - Skin Corrosion - Category 1B: Skin corrosion/irritation, Hazard Category 1B**
 - Skin Sensitizer - Category 1: Sensitisation - Skin, Hazard Category 1**

CA

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

Printing date 13.04.2016

Revision: 13.04.2016

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

- **1.1 Product identifier**
- **Trade name:** LOWICRYL K4M MONOMER B
- **Article number:** 14330(B)
- **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: info@emsdiasum.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**



GHS06 skull and crossbones

Acute Tox. 2 H310 Fatal in contact with skin.



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.



GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H332 Harmful if inhaled.

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.

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Trade name: **LOWICRYL K4M MONOMER B**

(Contd. of page 1)

· **Hazard pictograms**

GHS05 GHS06 GHS09

· **Signal word** *Danger*· **Hazard-determining components of labelling:**2-hydroxyethyl acrylate
mequinol· **Hazard statements**

H302+H332 Harmful if swallowed or if inhaled.

H310 Fatal in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H400 Very toxic to aquatic life.

· **Precautionary statements**

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.

P310 Immediately call a POISON CENTER/doctor.

P321 Specific treatment (see on this label).

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

· **3.2 Chemical characterisation: Mixtures**· **Description:** Mixture of substances listed below with nonhazardous additions.· **Dangerous components:**

CAS: 27813-02-1 EINECS: 248-666-3	methacrylic acid, monoester with propane-1,2-diol ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319	50-100%
CAS: 818-61-1 EINECS: 212-454-9	2-hydroxyethyl acrylate ⚠ Acute Tox. 3, H311; ⚠ Skin Corr. 1B, H314; ⚠ Aquatic Acute 1, H400; ⚠ Skin Sens. 1, H317	25-50%
CAS: 150-76-5 EINECS: 205-769-8	mequinol ⚠ Acute Tox. 4, H302; Eye Irrit. 2, H319; Skin Sens. 1, H317	2,5-10%

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

GB

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Trade name: **LOWICRYL K4M MONOMER B**

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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.

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

· **After inhalation:**

Supply fresh air and to be sure call for a 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. Then consult a doctor.

· **After swallowing:**

Call for a doctor immediately.

Drink plenty of water and provide fresh air. 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:**

Inform respective authorities in case of seepage into water course or sewage system.

· **6.3 Methods and material for containment and cleaning up:**

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

Use neutralising agent.

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.

Prevent formation of aerosols.

· **Information about fire - and explosion protection:** No special measures required.

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Safety data sheet
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Trade name: **LOWICRYL K4M MONOMER B**

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- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **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:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **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 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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **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

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Trade name: **LOWICRYL K4M MONOMER B**

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SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Liquid
Colour:	Colourless
Odour:	Recognisable
Odour threshold:	Not determined.

· pH-value: Not determined.

· Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	> 246 °C

· Flash point: > 93 °C

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature:

Decomposition temperature: Not determined.

· Self-igniting: Product is not selfigniting.

· Danger of explosion: Product does not present an explosion hazard.

· Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

· Vapour pressure: Not determined.

· Density: Not determined.

· Relative density: Not determined.

· Vapour density: Not determined.

· Evaporation rate: Not determined.

· Solubility in / Miscibility with water:

Not miscible or difficult to mix.

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

Dynamic:	Not determined.
Kinematic:	Not determined.

· Solvent content:

Organic solvents:	0.0 %
VOC (EC)	0.00 %

· 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.

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Trade name: **LOWICRYL K4M MONOMER B**

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- **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 or if inhaled.
Fatal in contact with skin.
- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes severe skin burns and eye damage.
- **Serious eye damage/irritation**
Causes severe skin burns and eye damage.
- **Respiratory or skin sensitisation**
May cause an allergic skin reaction.
- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **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.
- **Ecotoxicological effects:**
- **Remark:** Very toxic for fish
- **Additional ecological information:**
- **General notes:**
Must not reach sewage water or drainage ditch undiluted or unneutralised.
Also poisonous for fish and plankton in water bodies.
Very toxic for aquatic organisms
- **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.

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Safety data sheet
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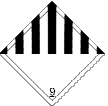
Revision: 13.04.2016

Trade name: **LOWICRYL K4M MONOMER B**

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

SECTION 14: Transport information

· 14.1 UN-Number · ADR, IMDG, IATA	UN2810
· 14.2 UN proper shipping name · ADR · IMDG · IATA	2810 TOXIC LIQUID, ORGANIC, N.O.S. (2-hydroxyethyl acrylate), ENVIRONMENTALLY HAZARDOUS TOXIC LIQUID, ORGANIC, N.O.S. (2-hydroxyethyl acrylate), MARINE POLLUTANT Toxic, liquids, organic, n.o.s. (2-hydroxyethyl acrylate)
· 14.3 Transport hazard class(es) · ADR, IMDG 	6.1 Toxic substances. 9
· IATA 	6.1 Toxic substances. 9
· 14.4 Packing group · ADR, IMDG, IATA	III
· 14.5 Environmental hazards: · Marine pollutant: · Special marking (ADR):	Product contains environmentally hazardous substances: 2-hydroxyethyl acrylate Symbol (fish and tree) Symbol (fish and tree)
· 14.6 Special precautions for user · Danger code (Kemler): · EMS Number: · Stowage Category · Stowage Code	Warning: Toxic substances. 90 F-A,S-A A SW2 Clear of living quarters.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information: · ADR · Limited quantities (LQ)	5L

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Revision: 13.04.2016

Trade name: LOWICRYL K4M MONOMER B

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· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· Transport category	3
· Tunnel restriction code	E
<hr/>	
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. (2-HYDROXYETHYL ACRYLATE), 9, III, ENVIRONMENTALLY HAZARDOUS

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** None of the ingredients is listed.
- **Seveso category**
H2 ACUTE TOXIC
E1 Hazardous to the Aquatic Environment
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t
- **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.

- **Relevant phrases**
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H400 Very toxic to aquatic life.
- **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
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity, Hazard Category 4
Acute Tox. 2: Acute toxicity, Hazard Category 2
Acute Tox. 3: Acute toxicity, Hazard Category 3

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Trade name: LOWICRYL K4M MONOMER B

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*Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B**Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2**Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2**Skin Sens. 1: Sensitisation - Skin, Hazard Category 1**Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1*

GB

化学品安全技术说明书

据根根据据根T 16483-2008, GB/T 17519-2013

打印日期 2016.04.13

在 2016.04.13 审核

1 化学品及企业标识

- **产品识别者**
- **化学品中文名称/英文名称/化学品俗名或商品名:** LOWICRYL K4M MONOMER B
- **商品编号:** 14330(B)
- **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: info@emsdiasum.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, 吞咽或吸入有害. 皮肤接触致死。引起严重的皮肤灼伤和眼睛损伤。可能引起皮肤过敏性反应。对水生生物毒性非常大。

· GHS危险性类别



骷髅和交叉骨

急性毒性(经皮肤) 第2类 H310 皮肤接触致死



腐蚀

皮肤腐蚀/刺激 第1B类 H314 引起严重的皮肤灼伤和眼睛损伤



环境

对水环境的危害(急性) 第1类 H400 对水生生物毒性非常大



急性毒性(经口) 第4类 H302 吞咽有害
急性毒性(吸入) 第4类 H332 吸入有害
敏化(皮肤) 第1类 H317 可能引起皮肤过敏性反应

· 标签因素

- **GHS卷标元素** 本产品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。

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CN

化学品安全技术说明书

据根据据据T 16483-2008, GB/T 17519-2013

打印日期 2016.04.13

在 2016.04.13 审核

化学品中文名称: 丙烯酸-2-羟乙基酯
 化学品英文名称: 丙烯酸-2-羟乙基酯
 俗名或商品名: LOWICRYL K4M MONOMER B

图示图示图示

(在 1 页继续)



GHS05 GHS06 GHS09

名称名称名称

· 标签上辨别危险的成份:

丙烯酸-2-羟乙基酯

对羟基苯甲醚

· 危险字句

吞咽或吸入有害。

皮肤接触致死

引起严重的皮肤灼伤和眼睛损伤

可能引起皮肤过敏反应

对水生生物毒性非常大

· 警戒字句

· 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。如戴隐型眼镜并可方便地取出, 取出隐型眼镜。继续冲洗。

立即呼叫解毒中心/医生

具体治疗(见本标签上的)

· 安全贮存

存放处须加锁。

· 废弃处置

按照本地 / 地区 / 国家 / 国际规例处理内含物 / 容器。

· 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

· 混合物

描述描述描述以下含有无害添加剂的成分组成的混合物

· 危险的成分:

27813-02-1	2-甲基-2-丙烯酸-1,2-丙二醇酯 ⚠ 皮肤腐蚀/刺激 第2类, H315; 严重眼睛损伤/眼睛刺激性 第2A类, H319	50-100%
818-61-1	丙烯酸-2-羟乙基酯 ⚠ 急性毒性(经皮肤) 第3类, H311; ⚠ 皮肤腐蚀/刺激 第1B类, H314; ⚠ 对水环境的危害(急性) 第1类, H400; ⚠ 敏化(皮肤) 第1类, H317	25-50%
150-76-5	对羟基苯甲醚 ⚠ 急性毒性(经口) 第4类, H302; 严重眼睛损伤/眼睛刺激性 第2类, H319; 敏化(皮肤) 第1类, H317	2,5-10%

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。

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化学品安全技术说明书

据根根据据根T 16483-2008, GB/T 17519-2013

打印日期 2016.04.13

在 2016.04.13 审核

化学品中文名称: 低聚丙烯酸酯
 化学品英文名称: 低聚丙烯酸酯
 化学品俗名或商品名: LOWICRYL K4M MONOMER B

(在 2 页继续)

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。

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。

吸入吸入吸入

供给新鲜空气并且确保会叫医生。

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。然后咨询医生。

食入食入食入

马上召唤医生。

喝大量的清水和提供新鲜的空气。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:** 如果渗入了水源或污水系统,请通知有关当局。
- **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)。
使用中和剂。
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

储存储存储存

确保工作间有良好的通风/排气装置。

防止气溶胶的形成。

- **有关火灾及防止爆炸的资料:** 不需特别的措施。

· 混合危险性等安全储存条件

储存储存储存

· **储存库和容器须要达到的要求:** 没有特别的要求。

· **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。

(在 4 页继续)

化学品安全技术说明书

据根根据据根T 16483-2008, GB/T 17519-2013

打印日期 2016.04.13

在 2016.04.13 审核

化学品中文名称: 化学品俗名或商品名: LOWICRYL K4M MONOMER B

(在 3 页继续)

· 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

150-76-5 对羟基苯甲醛

PEL (TW) | PC-TWA: 5 mg/m³

· 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,因为该产品是由很多材料配制而成,手套材料的抵抗力并不可预计,所以,必须在使用之前进行检查

· 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

· 眼睛防护:



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

外观外观外观

形状形状形状

液体

颜色颜色颜色

无色的

气味气味气味

可辨别的

· 嗅觉阈限

未决定.

(在 5 页继续)

化学品安全技术说明书

据根根据据根T 16483-2008, GB/T 17519-2013

打印日期 2016.04.13

在 2016.04.13 审核

化学品中文名称: 低聚丙烯酸酯
 化学品英文名称: 低聚丙烯酸酯
 化学品俗名或商品名: LOWICRYL K4M MONOMER B

(在 4 页继续)

· pH值:	未决定.
· 条件的更改	
熔点熔点熔点	未确定的
沸点沸点和沸程:	> 246 °C
闪点闪点闪点	> 93 °C
· 可燃性 (固体、气体):	不适用的
· 点火温度:	
· 分解温度:	未决定.
· 自燃温度:	该产品是不自燃的
· 爆炸的危险性:	该产品并没有爆炸的危险
· 爆炸极限:	
较低较低较低	未决定.
较高较高较高	未决定.
· 蒸气压:	未决定.
密度密度密度	未决定的
· 相对密度	未决定.
· 蒸气密度	未决定.
· 蒸发速率	未决定.
溶解性解性	
水:	不能拌和的或难以拌和
辛醇辛醇辛醇	分配系数未决定.
· 黏性:	
动态动态动态	未决定.
运动运动运动的	未决定.
· 溶剂成份:	
· 其他信息	0.0 % 无相关详细资料。

10 稳定性和反应性

· 稳定性: 无相关详细资料。

· 稳定性: 稳定

· 分解: 如果遵照规格使用则不会分解。

· 有害性: 未有已知的危险反应。

· 避免条件: 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:

· 皮肤刺激:

· 皮肤刺激: 皮肤和粘膜上造成强烈的腐蚀性影响。

(在 6 页继续)

化学品安全技术说明书

根据根据根据T 16483-2008, GB/T 17519-2013

打印日期 2016.04.13

在 2016.04.13 审核

化学品中文名称: 丙烯酸-2-羟乙基酯
 化学品英文名称: 2-Hydroxyethyl acrylate
 俗名或商品名: LOWICRYL K4M MONOMER B

(在 5 页继续)

- **在眼睛上面:** 强烈的腐蚀性影响。
- **致敏致敏作用:** 通过皮肤接触可能造成敏化作用。
- **更多毒物的资料:**
 根据有关配制的一般欧盟分类指南的计算方法 (刊印在最新版本), 该产品显示以下的危险:
 有害的
 腐蚀性的
 刺激性的
 非常毒性的
 通过皮肤吸收造成危险。
 吞咽该产品除了导致口部和喉咙出现强烈的腐蚀性现象之外, 还有对食道和胃部造成穿孔的危险。

12 生态学信息

- **急性毒性:** 无相关详细资料。
- **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:**
- **潜在的累积性:** 无相关详细资料。
- **土壤土壤移动性:** 无相关详细资料。
- **生态毒性的影响:**
- **备注:** 对鱼类有剧毒。
- **额外的生态学资料:**
- **注释:**
 不要让未被稀释或未被中和的产品接触下水道或排水沟渠。
 对水体中的鱼和浮游生物也有毒害。
 对水中的有机物有剧毒。
- **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
- **其他其他用途:** 无相关详细资料。

13 废弃处置

- **废弃处置方法:**
 建议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。
- **受污染的容器和包装:**
 建议建议必须根据官方的规章来丢弃。

14 运输信息

联合国危险货物编号(UN号)	
· ADR, IMDG, IATA	UN2810
适当适当船名	
· ADR	2810 TOXIC LIQUID, ORGANIC, N.O.S. (丙烯酸-2-羟乙基酯), ENVIRONMENTALLY HAZARDOUS
· IMDG	TOXIC LIQUID, ORGANIC, N.O.S. (2-hydroxyethyl acrylate), MARINE POLLUTANT
· IATA	Toxic, liquids, organic, n.o.s. (2-hydroxyethyl acrylate)

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 化学品俗名或商品名: LOWICRYL K4M MONOMER B

(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
- 新化学物质环境管理办法

国家环境优先物质名录

列出所有成分

- **GHS卷标元素** 本产品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。

图示图示



GHS05 GHS06 GHS09

名称名称名称

· 标签上辨别危险的成份:

丙烯酸-2-羟乙基酯
 对羟基苯甲醚

· 危险字句

吞咽或吸入有害。
 皮肤接触致死
 引起严重的皮肤灼伤和眼睛损伤
 可能引起皮肤过敏性反应
 对水生生物毒性非常大

· 警戒字句

· 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。如戴隐型眼镜并可方便地取出, 取出隐型眼镜。继续冲洗。
 立即呼叫解毒中心/医生
 具体治疗(见本标签上的)

· 安全贮存

存放处须加锁。

· 废弃处置

按照本地 / 地区 / 国家 / 国际规例处理内含物 / 容器。

· 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
 IATA: International Air Transport Association
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 PBT: 持久性生物累积性有毒物质
 vPvB: very Persistent and very Bioaccumulative
 急性毒性(经口) 第4类: Acute toxicity, Hazard Category 4
 急性毒性(经皮肤) 第2类: Acute toxicity, Hazard Category 2
 急性毒性(经皮肤) 第3类: Acute toxicity, Hazard Category 3
 皮肤腐蚀/刺激 第1B类: Skin corrosion/irritation, Hazard Category 1B

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化学品安全技术说明书

据根据据据T 16483-2008, GB/T 17519-2013

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化学品中文名称: 俗名或商品名: LOWICRYL K4M MONOMER B

皮肤腐蚀/刺激 第2类: Skin corrosion/irritation, Hazard Category 2
严重眼睛损伤/眼睛刺激性 第2类: Serious eye damage/eye irritation, Hazard Category 2
严重眼睛损伤/眼睛刺激性 第2A类: Serious eye damage/eye irritation, Hazard Category 2A
敏化(皮肤) 第1类: Sensitisation - Skin, Hazard Category 1
对水环境的危害(急性) 第1类: Hazardous to the aquatic environment - AcuteHazard, Category 1

(在 8 页继续)

-CN-

Bezpečnostní list

podle 1907/2006/ES, Článek 31

Datum vydání: 13.04.2016

Revize: 13.04.2016

ODDÍL 1: Identifikace látky/směsi a společnosti/podniku

- **1.1 Identifikátor výrobku**
- **Obchodní označení:** LOWICRYL K4M MONOMER B
- **Číslo výrobku:** 14330(B)
- **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: info@emsdiasum.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**



GHS06 lebka se zkříženými hnáty

Acute Tox. 2 H310 Při styku s kůží může způsobit smrt.



GHS05 korozivita

Skin Corr. 1B H314 Způsobuje těžké poleptání kůže a poškození očí.



GHS09 životní prostředí

Aquatic Acute 1 H400 Vysoce toxický pro vodní organismy.



GHS07

Acute Tox. 4 H302 Zdraví škodlivý při požití.

Acute Tox. 4 H332 Zdraví škodlivý při vdechování.

Skin Sens. 1 H317 Může vyvolat alergickou kožní reakci.

- **2.2 Prvky označení**
- **Označování v souladu s nařízením (ES) č. 1272/2008** Produkt je klasifikován a označen podle nařízení CLP.

(pokračování na straně 2)

Bezpečnostní list

podle 1907/2006/ES, Článek 31

Datum vydání: 13.04.2016

Revize: 13.04.2016

Obchodní označení: LOWICRYL K4M MONOMER B

(pokračování strany 1)

· Výstražné symboly nebezpečnosti


GHS05 GHS06 GHS09

· Signální slovo Nebezpečí
· Nebezpečné komponenty k etiketování:

 2-Hydroxyethyl-akrylát
 mequinol

· Standardní věty o nebezpečnosti

H302+H332 Zdraví škodlivý při požití a při vdechování.

H310 Při styku s kůží může způsobit smrt.

H314 Způsobuje těžké poleptání kůže a poškození očí.

H317 Může vyvolat alergickou kožní reakci.

H400 Vysoce toxický pro vodní organismy.

· Pokyny pro bezpečné zacházení

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.

P310 Okamžitě volejte TOXIKOLOGICKÉ INFORMAČNÍ STŘEDISKO/lékaře.

P321 Odborné ošetření (viz na tomto štítku).

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

· 3.2 Chemická charakteristika: Směsi

 · **Popis:** Směs obsahuje následné látky bez nebezpečných příměsí.

· Výrobek obsahuje tyto nebezpečné látky:

CAS: 27813-02-1 EINECS: 248-666-3	methacrylic acid, monoester with propane-1,2-diol ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319	50-100%
CAS: 818-61-1 EINECS: 212-454-9	2-Hydroxyethyl-akrylát ⚠ Acute Tox. 3, H311; ⚠ Skin Corr. 1B, H314; ⚠ Aquatic Acute 1, H400; ⚠ Skin Sens. 1, H317	25-50%
CAS: 150-76-5 EINECS: 205-769-8	mequinol ⚠ Acute Tox. 4, H302; Eye Irrit. 2, H319; Skin Sens. 1, H317	2,5-10%

 · **Dodatečná upozornění:** Znění uvedených údajů o nebezpečnosti látky je uvedeno v kapitole 16.

CZ

(pokračování na straně 3)

Bezpečnostní list

podle 1907/2006/ES, Článek 31

Datum vydání: 13.04.2016

Revize: 13.04.2016

Obchodní označení: LOWICRYL K4M MONOMER B

(pokračování strany 2)

ODDÍL 4: Pokyny pro první pomoc

- **4.1 Popis první pomoci**
- **Všeobecné pokyny:**
*Neprodleně odstranit části oděvu znečištěné produktem.
 Příznaky otravy se mohou projevit až po mnoha hodinách, proto je nutný lékařský dohled nejméně 48 hodin po nehodě.
 Při nepravidelném dechu nebo zástavě dechu provést umělé dýchání.*
- **Při nadýchání:**
*Bohatý přívod čerstvého vzduchu a pro jistotu vyhledat lékaře.
 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:** *Otevřené oči po více minut oplachovat pod tekoucí vodou a poradit se s lékařem.*
- **Při požití:**
*Ihned vyhledat lékaře.
 Bohatě zapít vodou a dýchat čerstvý vzduch. Neprodleně 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:**
Při vniknutí do kanalizace nebo vodního toku informovat příslušné orgány.
- **6.3 Metody a materiál pro omezení úniku a pro čištění:**
*Sebrat s materiály, vázčícími kapaliny (písek, šterkový písek, pojidla kyselin, universální pojidla, piliny).
 Použít neutralizační prostředky.
 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.
 Zamezit vytváření aerosolů.*

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- **Upozornění k ochraně před ohněm a explozí:** Nejsou nutná žádná zvláštní opatření.
- **7.2 Podmínky pro bezpečné skladování látek a směsí včetně neslučitelných látek a směsí**
- **Pokyny pro skladování:**
- **Požadavky na skladovací prostory a nádoby:** Žádné zvláštní požadavky.
- **Upozornění k hromadnému skladování:** Není nutné.
- **Další údaje k podmínkám skladování:** Nádrž držet neprodyšně uzavřenou.
- **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:**
Produkt neobsahuje žádná relevantní množství látek, u kterých se musí kontrolovat hraniční hodnoty na pracovišti.
- **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 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. Protože je výrobek směs více látek, nelze materiál rukavic předem vypočítat a je nutno udělat před použitím zkoušku.
- **Doba průniku materiálem rukavic**
Je nutno u výrobce rukavic zjistit a dodržovat přesné časy průniku materiálem ochranných rukavic.
- **Ochrana očí:**



Uzavřené ochranné brýle

CZ

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ODDÍL 9: Fyzikální a chemické vlastnosti

· 9.1 Informace o základních fyzikálních a chemických vlastnostech

· Všeobecné údaje

· Vzhled:

Skupenství: Tekutina

Barva: Bezbarvá

· Zápach (vůně): Může se rozpoznat

· Prahová hodnota zápachu: Není určeno.

· Hodnota pH: Není určeno.

· Změna stavu

Teplota (rozmezí teplot) tání: Není určeno.

Teplota (rozmezí teplot) varu: > 246 °C

· Bod vzplanutí: > 93 °C

· Zápalnost (tuhé, plynné skupenství): Nedá se použít.

· Zápalná teplota:

Teplota rozkladu: Není určeno.

· Samozápalnost: Produkt není samozápalný.

· Nebezpečí exploze: U produktu nehrozí nebezpečí exploze.

· Meze výbušnosti:

Dolní mez: Není určeno.

Horní mez: Není určeno.

· Tenze par: Není určeno.

· Hustota: Není určeno.

· Relativní hustota: Není určeno.

· Hustota par: Není určeno.

· Rychlost odpařování: Není určeno.

· Rozpustnost ve / smísitelnost s

vodě: Vůbec nemísitelná nebo jen málo mísitelná.

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

· Viskozita:

Dynamicky: Není určeno.

Kinematicky: Není určeno.

· Obsah ředidel:

Organická ředidla: 0,0 %

VOC (EC) 0,00 %

· 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.

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- **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 a při vdechování.
Při styku s kůží může způsobit smrt.
- **Primární dráždivé účinky:**
- **Žíravost/dráždivost pro kůži**
Způsobuje těžké poleptání kůže a poškození očí.
- **Vážné poškození očí / podráždění očí**
Způsobuje těžké poleptání kůže a poškození očí.
- **Senzibilizace dýchacích cest / senzibilizace kůže**
Může vyvolat alergickou kožní reakci.
- **Účinky CMR (karcinogenita, mutagenita a toxicita pro reprodukci)**
- **Mutagenita v zárodečných buňkách** Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
- **Karcinogenita** Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
- **Toxicita pro reprodukci** Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
- **Toxicita pro specifické cílové orgány – jednorázová expozice**
Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
- **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.
- **Ekotoxické účinky:**
- **Poznámka:** Velmi jedovatý pro ryby.
- **Další ekologické údaje:**
- **Všeobecná upozornění:**
Nesmí nezřetědno nebo nezneutralizováno proniknout do odpadních vod nebo jímek.
V povodích je také jedovatá pro ryby a plankton.
velmi jedovatá pro vodní organismy
- **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.

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- **Kontaminované obaly:**
- **Doporučení:** Odstranění podle příslušných předpisů.

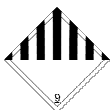
ODDÍL 14: Informace pro přepravu

· **14.1 UN číslo**· **ADR, IMDG, IATA** UN2810· **14.2 Oficiální (OSN) pojmenování pro přepravu**

· **ADR** 2810 LÁTKA TOXICKÁ, KAPALNÁ, ORGANICKÁ, J.N. (2-Hydroxyethyl-akrylát), OHROŽUJÍCÍ ŽIVOTNÍ PROSTŘEDÍ
 · **IMDG** TOXIC LIQUID, ORGANIC, N.O.S. (2-hydroxyethyl acrylate), MARINE POLLUTANT
 · **IATA** Toxic, liquids, organic, n.o.s. (2-hydroxyethyl acrylate)

· **14.3 Třída/třídy nebezpečnosti pro přepravu**· **ADR, IMDG**

· **třída** 6.1 Jedovaté látky
 · **Etiketa** 9

· **IATA**

· **Class** 6.1 Jedovaté látky
 · **Label** 9

· **14.4 Obalová skupina**· **ADR, IMDG, IATA** III· **14.5 Nebezpečnost pro životní prostředí:**

· **Látka znečišťující moře:** Produkt obsahuje látky ohrožující životní prostředí: 2-Hydroxyethyl-akrylát
 · **Zvláštní označení (ADR):** Symbol (ryba a strom)
 Symbol (ryba a strom)

· **14.6 Zvláštní bezpečnostní opatření pro uživatele**

· **Kemlerovo číslo:** Varování: Jedovaté látky
 90
 · **EMS-skupina:** F-A,S-A
 · **Stowage Category** A
 · **Stowage Code** SW2 Clear of living quarters.

· **14.7 Hromadná přeprava podle přílohy II úmluvy MARPOL a předpisu IBC**

Nedá se použít.

· **Přeprava/další údaje:**

· **ADR**
 · **Omezené množství (LQ)** 5L

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· Vyňatá množství (EQ)	Kód: E1 Nejvyšší čisté množství na vnitřní obal: 30 ml Nejvyšší čisté množství na vnější obal: 1000 ml
· Přepavní kategorie	3
· Kód omezení pro tunely:	E
<hr style="border-top: 1px dashed #000;"/>	
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 2810 LÁTKA TOXICKÁ, KAPALNÁ, ORGANICKÁ, J.N. (2-HYDROXYETHYL-AKRYLÁT), 9, III, OHROŽUJÍCÍ ŽIVOTNÍ PROSTŘEDÍ

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** Žádná z obsažených látek není na seznamu.
- **Kategorie Seveso**
H2 AKUTNÍ TOXICITA
E1 Nebezpečnost pro vodní prostředí
- **Kvalifikační množství (v tunách) při uplatnění požadavků pro podlimitní množství 50 t**
- **Kvalifikační množství (v tunách) při uplatnění požadavků pro nadlimitní množství 200 t**
- **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.

- **Relevantní věty**
H302 Zdraví škodlivý při požití.
H311 Toxický při styku s kůží.
H314 Způsobuje těžké poleptání kůže a poškození očí.
H315 Dráždí kůži.
H317 Může vyvolat alergickou kožní reakci.
H319 Způsobuje vážné podráždění očí.
H400 Vysoce toxický pro vodní organismy.
- **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
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity, Hazard Category 4
Acute Tox. 2: Acute toxicity, Hazard Category 2

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Acute Tox. 3: Acute toxicity, Hazard Category 3
Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1

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CZ

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

· 1.1 Productidentificatie

· Handelsnaam: **LOWICRYL K4M MONOMER B**

· Artikelnummer: 14330(B)

· 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: info@emsdiasum.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



GHS06 doodshoofd met gekruiste beenderen

Acute Tox. 2 H310 Dodelijk bij contact met de huid.



GHS05 corrosie

Skin Corr. 1B H314 Veroorzaakt ernstige brandwonden en oogletsel.



GHS09 milieu

Aquatic Acute 1 H400 Zeer giftig voor in het water levende organismen.



GHS07

Acute Tox. 4 H302 Schadelijk bij inslikken.

Acute Tox. 4 H332 Schadelijk bij inademing.

(Vervolg op blz. 2)

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Skin Sens. 1 H317 Kan een allergische huidreactie veroorzaken.

· 2.2 Etiketteringselementen

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

Het product is geclassificeerd en geëtiketteerd volgens de CLP-verordening.

· Gevarenpictogrammen



GHS05 GHS06 GHS09

· Signaalwoord Gevaar

· Gevaaraanduidende componenten voor de etikettering:

2-hydroxyethylacrylaat
mequinol

· Gevarenaanduidingen

H302+H332 Schadelijk bij inslikken en bij inademing.

H310 Dodelijk bij contact met de huid.

H314 Veroorzaakt ernstige brandwonden en oogletsel.

H317 Kan een allergische huidreactie veroorzaken.

H400 Zeer giftig voor in het water levende organismen.

· Veiligheidsaanbevelingen

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.

P310 Onmiddellijk een ANTIGIFCENTRUM/arts raadplegen.

P321 Specifieke behandeling vereist (zie op dit etiket).

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

· 3.2 Chemische karakterisering: Mengsels

· **Beschrijving:** Mengsel van na elkaar aangevoerde stoffen met ongevaarlijke bijmengingen.

· Gevaarlijke inhoudstoffen:

CAS: 27813-02-1 EINECS: 248-666-3	methacrylzuur, monoester met propaan-1,2-diol ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319	50-100%
CAS: 818-61-1 EINECS: 212-454-9	2-hydroxyethylacrylaat ⚠ Acute Tox. 3, H311; ⚠ Skin Corr. 1B, H314; ⚠ Aquatic Acute 1, H400; ⚠ Skin Sens. 1, H317	25-50%
CAS: 150-76-5 EINECS: 205-769-8	mequinol ⚠ Acute Tox. 4, H302; Eye Irrit. 2, H319; Skin Sens. 1, H317	2,5-10%

(Vervolg op blz. 3)

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· **Aanvullende gegevens:**

De woordelijke inhoud van de opgegeven aanwijzingen inzake de mogelijke gevaren is te vinden in hoofdstuk 16.

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.

Bij onregelmatige ademhaling of ademstilstand kunstmatige ademhaling toepassen.

· **Na het inademen:**

Veel verse lucht toedienen en voor alle zekerheid een arts raadplegen.

Bij bewusteloosheid ligging en vervoer in stabiele zijligging.

· **Na huidcontact:** Onmiddellijk met water en zeep afwassen en goed naspoelen.

· **Na oogcontact:** Ogen met open ooglid een aantal minuten onder stromend water afspoelen en dokter raadplegen.

· **Na inslikken:**

Onmiddellijk arts raadplegen.

Drink zeer veel water en voer verse lucht aan. Onmiddellijk een dokter waarschuwen.

· **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 brandweerlieden**

· **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:**

Bij indringen in afvalwater of riolering moet de bevoegde instantie gewaarschuwd worden.

· **6.3 Insluitings- en reinigingsmethoden en -materiaal:**

Met vloeistofbindend materiaal (zand, bergmeel, zuurbinder, universele binder, zaagmeel) opnemen.

Neutralisatiemiddel gebruiken.

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.

Informatie inzake persoonlijke beschermingsuitrusting - zie hoofdstuk 8.

Informatie inzake berging - zie hoofdstuk 13.

NL

(Vervolg op blz. 4)

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(Vervolg van blz. 3)

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.
Aërosolvorming vermijden.
- **Informatie m.b.t. brand- en ontploffingsgevaar:** Geen bijzondere maatregelen noodzakelijk.
- **7.2 Voorwaarden voor een veilige opslag, met inbegrip van incompatibele producten**
- **Opslag:**
- **Eisen ten opzichte van opslagruimte en tanks:** Geen bijzondere eisen.
- **Informatie m.b.t. gezamenlijke opslag:** Niet noodzakelijk.
- **Verdere inlichtingen over eisen m.b.t. de opslag:** Tanks ondoordringbaar gesloten houden.
- **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:**
Het produkt bevat geen relevante hoeveelheden van stoffen, die met betrekking tot de werkplaatsen, qua grenswaarden gecontroleerd moeten worden.
- **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 en de huid vermijden.
- **Ademhalingsbescherming:**
Bij korte of geringe belasting ademfiltertoestel; bij intensieve resp. langdurige expositie een van de omringende lucht onafhankelijk ademhalingstoestel gebruiken.
- **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 chemicaliën-mengsel 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. Aangezien het product uit meerdere stoffen is samengesteld, is de duurzaamheid van de handschoenmaterialen niet vooraf berekenbaar en moet derhalve vóór het gebruik worden getest.
 - **Doordringingstijd van het handschoenmateriaal**
De precieze penetratietijd kunt u te weten komen bij de handschoenfabrikant; houd er rekening mee.

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· **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
· Reuk:	Waarneembaar
· Geurdrempelwaarde:	Niet bepaald.

· **pH-waarde:** Niet bepaald.· **Toestandsverandering**

Smeltpunt/smeltbereik:	Niet bepaald.
Kookpunt/kookpuntbereik:	> 246 °C

· **Vlampunt:** > 93 °C· **Ontvlambaarheid (vast, gasvormig):** Niet bruikbaar.· **Ontstekingstemperatuur:**

Ontbindingstemperatuur:	Niet bepaald.
--------------------------------	---------------

· **Zelfonsteking:** Het produkt ontbrandt niet uit zichzelf.· **Ontploffingsgevaar:** Het produkt is niet ontploffingsgevaarlijk.· **Ontploffingsgrenzen:**

Onderste:	Niet bepaald.
Bovenste:	Niet bepaald.

· **Dampspanning:** Niet bepaald.

Dichtheid:	Niet bepaald.
-------------------	---------------

· **Relatieve dichtheid** Niet bepaald.· **Dampdichtheid** Niet bepaald.· **Verdampingssnelheid** Niet bepaald.· **Oplosbaarheid in/mengbaarheid met**

Water:	Niet resp. gering mengbaar.
---------------	-----------------------------

· **Verdelingscoëfficiënt (n-octanol/water):** Niet bepaald.· **Viscositeit**

Dynamisch:	Niet bepaald.
-------------------	---------------

Kinematisch:	Niet bepaald.
---------------------	---------------

· **Oplosmiddelgehalte:**

Organisch oplosmiddel:	0,0 %
VOC (EG)	0,00 %

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· **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 en bij inademing.
Dodelijk bij contact met de huid.*
- **Primaire aandoening:**
- **Huidcorrosie/-irritatie**
Veroorzaakt ernstige brandwonden en oogletsel.
- **Ernstig oogletsel/oogirritatie**
Veroorzaakt ernstige brandwonden en oogletsel.
- **Sensibilisatie van de luchtwegen/de huid**
Kan een allergische huidreactie veroorzaken.
- **CMR-effecten (kankerverwekkendheid, mutageniteit en giftigheid voor de voortplanting)**
- **Mutageniteit in geslachtscellen** *Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.*
- **Kankerverwekkendheid** *Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.*
- **Giftigheid voor de voortplanting** *Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.*
- **STOT bij eenmalige blootstelling** *Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.*
- **STOT bij herhaalde blootstelling** *Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.*
- **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.*
- **Ecotoxische effecten:**
- **Opmerking:** *Zeer giftig voor vissen.*
- **Verdere ecologische informatie:**
- **Algemene informatie:**
*Waterbezwaarlijkheid (NL) 5: Zeer vergiftig voor in het water levende organismen.
Mag niet onverdund of niet geneutraliseerd in oppervlaktewater of in afwateringskanaal geloosd worden.
In oppervlaktewater ook giftig voor vissen en plankton.
zeer giftig voor in het water levende organismen*
- **12.5 Resultaten van PBT- en zPzB-beoordeling**
- **PBT:** *Niet bruikbaar.*

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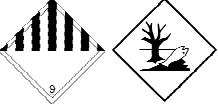
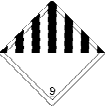
(Vervolg van blz. 6)

- **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 terecht komen.
- **Niet gereinigde verpakkingen:**
- **Aanbeveling:** Afvalverwijdering volgens overheidsbepalingen.

RUBRIEK 14: Informatie met betrekking tot het vervoer

- | | |
|--|--|
| · 14.1 VN-nummer | |
| · ADR, IMDG, IATA | UN2810 |
| · 14.2 Juiste ladingnaam overeenkomstig de modelreglementen van de VN | |
| · ADR | 2810 GIFTIGE ORGANISCHE VLOEISTOF, N.E.G. (2-hydroxyethylacrylaat), MILIEUGEVAARLIJK |
| · IMDG | TOXIC LIQUID, ORGANIC, N.O.S. (2-hydroxyethyl acrylate), MARINE POLLUTANT |
| · IATA | Toxic, liquids, organic, n.o.s. (2-hydroxyethyl acrylate) |
| · 14.3 Transportgevarenklasse(n) | |
| · ADR, IMDG | |
| |  |
| · klasse | 6.1 Giftige stoffen |
| · Etiket | 9 |
| · IATA | |
| |  |
| · Class | 6.1 Giftige stoffen |
| · Label | 9 |
| · 14.4 Verpakkingsgroep: | |
| · ADR, IMDG, IATA | III |
| · 14.5 Milieugevaren: | Produkt bevat milieugevaarlijke stoffen: 2-hydroxyethylacrylaat |
| · Marine pollutant: | Symbool (vis en boom) |
| · Bijzondere kenmerking (ADR): | Symbool (vis en boom) |
| · 14.6 Bijzondere voorzorgen voor de gebruiker | Waarschuwing: Giftige stoffen |
| · Kemler-getal: | 90 |
| · EMS-nummer: | F-A,S-A |
| · Stowage Category | A |

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· 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)	5L
· Uitgezonderde hoeveelheden (EQ)	Code: E1 Grootste netto hoeveelheid per binnenverpakking: 30 ml Grootste netto hoeveelheid per buitenverpakking: 1000 ml
· Vervoerscategorie	3
· Tunnelbeperkingscode	E
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· VN "Model Regulation":	UN 2810 GIFTIGE ORGANISCHE VLOEISTOF, N.E.G. (2-HYDROXYETHYLACRYLAAT), 9, III, MILIEUGEVAARLIJK

RUBRIEK 15: Regelgeving

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

· SZW-lijst van kankerverwekkende stoffen	geen der bestanddelen staat op de lijst.
· SZW-lijst van mutagene stoffen	geen der bestanddelen staat op de lijst.
· NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Vruchtbaarheid	geen der bestanddelen staat op de lijst.
· NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Ontwikkeling	geen der bestanddelen staat op de lijst.
· NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Borstvoeding	geen der bestanddelen staat op de lijst.

· Richtlijn 2012/18/EU

· **Gevaarlijke stoffen die met naam genoemd worden - BIJLAGE I** geen der bestanddelen staat op de lijst.

· Seveso-categorie

H2 ACUUT TOXISCH

E1 Gevaar voor het aquatisch milieu

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

· **Drempelwaarde (ton) voor toepassing van voorschriften voor hogedrempelinrichtingen** 200 t

· Nationale voorschriften:

· **Gevaarklasse v. water:** Waterbezwaarlijkheid (NL) 5: Saneringsinspanning B

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

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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.

· **Relevante zinnen**

- H302 Schadelijk bij inslikken.*
- H311 Giftig bij contact met de huid.*
- H314 Veroorzaakt ernstige brandwonden en oogletsel.*
- H315 Veroorzaakt huidirritatie.*
- H317 Kan een allergische huidreactie veroorzaken.*
- H319 Veroorzaakt ernstige oogirritatie.*
- H400 Zeer giftig voor in het water levende organismen.*

· **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*
- ELINCS: European List of Notified Chemical Substances*
- CAS: Chemical Abstracts Service (division of the American Chemical Society)*
- VOC: Volatile Organic Compounds (USA, EU)*
- PBT: Persistent, Bioaccumulative and Toxic*
- vPvB: very Persistent and very Bioaccumulative*
- Acute Tox. 4: Acute toxicity, Hazard Category 4*
- Acute Tox. 2: Acute toxicity, Hazard Category 2*
- Acute Tox. 3: Acute toxicity, Hazard Category 3*
- Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B*
- Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2*
- Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2*
- Skin Sens. 1: Sensitisation - Skin, Hazard Category 1*
- Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1*

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

- **1.1 Identificateur de produit**
- **Nom du produit:** LOWICRYL K4M MONOMER B
- **Code du produit:** 14330(B)
- **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: info@emsdiasum.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**



GHS06 tête de mort sur deux tibias

Acute Tox. 2 H310 Mortel par contact cutané.



GHS05 corrosion

Skin Corr. 1B H314 Provoque des brûlures de la peau et des lésions oculaires graves.



GHS09 environnement

Aquatic Acute 1 H400 Très toxique pour les organismes aquatiques.



GHS07

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

Acute Tox. 4 H332 Nocif par inhalation.

Skin Sens. 1 H317 Peut provoquer une allergie cutanée.

- **2.2 Éléments d'étiquetage**
- **Étiquetage selon le règlement (CE) n° 1272/2008** Le produit est classifié et étiqueté selon le règlement CLP.

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Pictogrammes de danger


GHS05 GHS06 GHS09

Mention d'avertissement Danger
Composants dangereux déterminants pour l'étiquetage:

 acrylate de 2-hydroxyéthyle
 mequinol

Mentions de danger

H302+H332 Nocif en cas d'ingestion ou d'inhalation.

H310 Mortel par contact cutané.

H314 Provoque des brûlures de la peau et des lésions oculaires graves.

H317 Peut provoquer une allergie cutanée.

H400 Très toxique pour les organismes aquatiques.

Conseils de prudence

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.

P310 Appeler immédiatement un CENTRE ANTIPOISON/un médecin.

P321 Traitement spécifique (voir sur cette étiquette).

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

3.2 Caractérisation chimique: Mélanges

 • **Description:** Mélange des substances mentionnées à la suite avec des additifs non dangereux.

Composants dangereux:

CAS: 27813-02-1 EINECS: 248-666-3	acide méthacrylique, monoester avec propane-1,2-diol ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319	50-100%
CAS: 818-61-1 EINECS: 212-454-9	acrylate de 2-hydroxyéthyle ⚠ Acute Tox. 3, H311; ⚠ Skin Corr. 1B, H314; ⚠ Aquatic Acute 1, H400; ⚠ Skin Sens. 1, H317	25-50%
CAS: 150-76-5 EINECS: 205-769-8	mequinol ⚠ Acute Tox. 4, H302; Eye Irrit. 2, H319; Skin Sens. 1, H317	2,5-10%

 • **Indications complémentaires:** Pour le libellé des phrases de risque citées, se référer au chapitre 16.

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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.

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

· **Après inhalation:**

Donner de l'air frais en abondance et consulter un médecin pour plus de sécurité.

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 et consulter un médecin.

· **Après ingestion:**

Consulter immédiatement un médecin.

Boire de l'eau en abondance et donner de l'air frais. 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:**

En cas de pénétration dans les eaux ou les égouts, avertir les autorités compétentes.

· **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).

Utiliser un neutralisant.

Evacuer 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.

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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.
Eviter la formation d'aérosols.
- **Préventions des incendies et des explosions:** Aucune mesure particulière n'est requise.
- **7.2 Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités**
- **Stockage:**
- **Exigences concernant les lieux et conteneurs de stockage:** Aucune exigence particulière.
- **Indications concernant le stockage commun:** Pas nécessaire.
- **Autres indications sur les conditions de stockage:** Tenir les emballages hermétiquement fermés.
- **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:**

150-76-5 mequinol

VME	Valeur à long terme: 5 mg/m ³
-----	--

- **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.

Conserver à part les vêtements de protection.

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

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 dépend non seulement du matériau, mais aussi d'autres critères de qualité qui peuvent varier d'un fabricant à l'autre. Puisque le produit représente une préparation composée de plusieurs substances, la résistance des matériaux des gants ne peut pas être calculée à l'avance et doit, alors, être contrôlée avant l'utilisation.

- **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.

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· 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:	Reconnaissable
Seuil olfactif:	Non déterminé.

· valeur du pH: Non déterminé.

· Changement d'état

Point de fusion:	Non déterminé.
Point d'ébullition:	> 246 °C

· Point d'éclair > 93 °C

· Inflammabilité (solide, gazeux): Non applicable.

· Température d'inflammation:

Température de décomposition: Non déterminé.

· Auto-inflammation: Le produit ne s'enflamme pas spontanément.

· Danger d'explosion: Le produit n'est pas explosif.

· Limites d'explosion:

Inférieure:	Non déterminé.
Supérieure:	Non déterminé.

· Pression de vapeur: Non déterminé.

· Densité: Non déterminée.

· Densité relative: Non déterminé.

· Densité de vapeur: Non déterminé.

· Vitesse d'évaporation: Non déterminé.

· Solubilité dans/miscibilité avec l'eau:

Pas ou peu miscible

· Coefficient de partage (n-octanol/eau): Non déterminé.

· Viscosité:

Dynamique:	Non déterminé.
Cinématique:	Non déterminé.

· Teneur en solvants:

Solvants organiques:	0,0 %
VOC (CE)	0,00 %

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· **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 ou d'inhalation.
Mortel par contact cutané.
- **Effet primaire d'irritation:**
- **Corrosion cutanée/irritation cutanée**
Provoque des brûlures de la peau et des lésions oculaires graves.
- **Lésions oculaires graves/irritation oculaire**
Provoque des brûlures de la peau et des lésions oculaires graves.
- **Sensibilisation respiratoire ou cutanée**
Peut provoquer une allergie cutanée.
- **Effets CMR (cancérogène, mutagène et toxique pour la reproduction)**
- **Mutagénicité sur les cellules germinales**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Cancérogénicité** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **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**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Toxicité spécifique pour certains organes cibles - exposition répétée**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **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.
- **Effets écotoxiques:**
- **Remarque:** Très toxique chez les poissons.
- **Autres indications écologiques:**
- **Indications générales:**
Ne doit pas pénétrer à l'état non dilué ou non neutralisé dans les eaux usées ou le collecteur.
Dans les eaux, également toxique pour les poissons et le plancton.
Très toxique pour organismes aquatiques.

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- 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.

RUBRIQUE 14: Informations relatives au transport

- | | |
|--|---|
| <ul style="list-style-type: none"> · 14.1 Numéro ONU · ADR, IMDG, IATA | <p align="center">UN2810</p> |
| <ul style="list-style-type: none"> · 14.2 Désignation officielle de transport de l'ONU · ADR · IMDG · IATA | <p>2810 LIQUIDE ORGANIQUE TOXIQUE, N.S.A. (acrylate de 2-hydroxyéthyle), DANGEREUX POUR L'ENVIRONNEMENT</p> <p>TOXIC LIQUID, ORGANIC, N.O.S. (2-hydroxyethyl acrylate), MARINE POLLUTANT</p> <p>Toxic, liquids, organic, n.o.s. (2-hydroxyethyl acrylate)</p> |
| <ul style="list-style-type: none"> · 14.3 Classe(s) de danger pour le transport · ADR, IMDG | <p>6.1 Matières toxiques.</p> <p>9</p> |
| <ul style="list-style-type: none"> · IATA | <p>6.1 Matières toxiques.</p> <p>9</p> |
| <ul style="list-style-type: none"> · 14.4 Groupe d'emballage · ADR, IMDG, IATA | <p align="center">III</p> |
| <ul style="list-style-type: none"> · 14.5 Dangers pour l'environnement: · Marine Pollutant: · Marquage spécial (ADR): | <p>Le produit contient matières dangereuses pour l'environnement : acrylate de 2-hydroxyéthyle</p> <p>Signe conventionnel (poisson et arbre)</p> <p>Signe conventionnel (poisson et arbre)</p> |
| <ul style="list-style-type: none"> · 14.6 Précautions particulières à prendre par l'utilisateur | <p align="center">Attention: Matières toxiques.</p> |

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· Indice Kemler:	90
· No EMS:	F-A,S-A
· Stowage Category	A
· Stowage Code	SW2 Clear of living quarters.
· 14.7 Transport en vrac conformément à l'annexe II de la convention Marpol et au recueil IBC	Non applicable.
· Indications complémentaires de transport:	
· ADR	
· Quantités limitées (LQ)	5L
· Quantités exceptées (EQ)	Code: E1 Quantité maximale nette par emballage intérieur: 30 ml Quantité maximale nette par emballage extérieur: 1000 ml
· Catégorie de transport	3
· Code de restriction en tunnels	E
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· "Règlement type" de l'ONU:	UN 2810 LIQUIDE ORGANIQUE TOXIQUE, N.S.A. (ACRYLATE DE 2-HYDROXYÉTHYLE), 9, III, DANGEREUX POUR L'ENVIRONNEMENT

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** Aucun des composants n'est compris.
- **Catégorie SEVESO**
H2 TOXICITÉ AIGUË
E1 Danger pour l'environnement aquatique
- **Quantité seuil (tonnes) pour l'application des exigences relatives au seuil bas 50 t**
- **Quantité seuil (tonnes) pour l'application des exigences relatives au seuil haut 200 t**
- **15.2 Évaluation de la sécurité chimique:** Une évaluation de la sécurité chimique n'a pas été réalisée.

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.

- **Phrases importantes**
H302 Nocif en cas d'ingestion.
H311 Toxique par contact cutané.
H314 Provoque des brûlures de la peau et des lésions oculaires graves.
H315 Provoque une irritation cutanée.
H317 Peut provoquer une allergie cutanée.
H319 Provoque une sévère irritation des yeux.

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H400 Très toxique pour les organismes aquatiques.

· 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

ELINCS: European List of Notified Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity, Hazard Category 4

Acute Tox. 2: Acute toxicity, Hazard Category 2

Acute Tox. 3: Acute toxicity, Hazard Category 3

Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1

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

- **1.1 Produktidentifikator**
- **Handelsname:** LOWICRYL K4M MONOMER B
- **Artikelnummer:** 14330(B)
- **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: info@emsdiasum.com
www.emsdiasum.com

Science Services GmbH
Unterhachinger Str. 75
81737 München Germany
Tel: +49(0)89 18 93 668-0
safety@scienceservices.de

24h Giftnotruf Munchen: +49 (0)89 19240
Toxikologische Abteilung der II. Medizinischen Klinik
rechts der Isar, Munchen. - www.toxinfo.org
- **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**



GHS06 Totenkopf mit gekreuzten Knochen

Acute Tox. 2 H310 Lebensgefahr bei Hautkontakt.



GHS05 Ätzwirkung

Skin Corr. 1B H314 Verursacht schwere Verätzungen der Haut und schwere Augenschäden.



GHS09 Umwelt

Aquatic Acute 1 H400 Sehr giftig für Wasserorganismen.

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GHS07

Acute Tox. 4 H302 Gesundheitsschädlich bei Verschlucken.
 Acute Tox. 4 H332 Gesundheitsschädlich bei Einatmen.
 Skin Sens. 1 H317 Kann allergische Hautreaktionen verursachen.

· 2.2 Kennzeichnungselemente

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

Das Produkt ist gemäß CLP-Verordnung eingestuft und gekennzeichnet.

· Gefahrenpiktogramme



GHS05 GHS06 GHS09

· Signalwort Gefahr

· Gefahrbestimmende Komponenten zur Etikettierung:

2-Hydroxyethylacrylat
 Mequinol

· Gefahrenhinweise

H302+H332 Gesundheitsschädlich bei Verschlucken oder Einatmen.
 H310 Lebensgefahr bei Hautkontakt.
 H314 Verursacht schwere Verätzungen der Haut und schwere Augenschäden.
 H317 Kann allergische Hautreaktionen verursachen.
 H400 Sehr giftig für Wasserorganismen.

· Sicherheitshinweise

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.
 P310 Sofort GIFTINFORMATIONSZENTRUM/Arzt anrufen.
 P321 Besondere Behandlung (siehe auf diesem Kennzeichnungsetikett).
 P405 Unter Verschluss aufbewahren.
 P501 Entsorgung des Inhalts / des Behälters gemäß den örtlichen / regionalen / nationalen / internationalen Vorschriften.

· 2.3 Sonstige Gefahren

· Ergebnisse der PBT- und vPvB-Beurteilung

- **PBT:** Nicht anwendbar.
- **vPvB:** Nicht anwendbar.

ABSCHNITT 3: Zusammensetzung/Angaben zu Bestandteilen

· 3.2 Chemische Charakterisierung: Gemische

· **Beschreibung:** Gemisch aus nachfolgend angeführten Stoffen mit ungefährlichen Beimengungen.

· Gefährliche Inhaltsstoffe:

CAS: 27813-02-1	Hydroxypropylmethacrylat	50-100%
INECS: 248-666-3	Skin Irrit. 2, H315; Eye Irrit. 2, H319	

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CAS: 818-61-1 EINECS: 212-454-9	2-Hydroxyethylacrylat Acute Tox. 3, H311; Skin Corr. 1B, H314; Aquatic Acute 1, H400; Skin Sens. 1, H317	25-50%
CAS: 150-76-5 EINECS: 205-769-8	Mequinol Acute Tox. 4, H302; Eye Irrit. 2, H319; Skin Sens. 1, H317	2,5-10%

· **Zusätzliche Hinweise:** Der Wortlaut der angeführten Gefahrenhinweise ist dem Abschnitt 16 zu entnehmen.

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.

Bei unregelmäßiger Atmung oder Atemstillstand künstliche Beatmung.

· Nach Einatmen:

Reichlich Frischluftzufuhr und sicherheitshalber Arzt aufsuchen.

Bei Bewußtlosigkeit Lagerung und Transport in stabiler Seitenlage.

· Nach Hautkontakt: Sofort mit Wasser und Seife abwaschen und gut nachspülen.

· Nach Augenkontakt:

Augen bei geöffnetem Lidspalt mehrere Minuten unter fließendem Wasser abspülen und Arzt konsultieren.

· Nach Verschlucken:

Sofort Arzt aufsuchen.

Reichlich Wasser nachtrinken und Frischluftzufuhr. Unverzüglich Arzt hinzuziehen.

· 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.

· 6.2 Umweltschutzmaßnahmen:

Bei Eindringen in Gewässer oder Kanalisation zuständige Behörden benachrichtigen.

· 6.3 Methoden und Material für Rückhaltung und Reinigung:

Mit flüssigkeitsbindendem Material (Sand, Kieselgur, Säurebinder, Universalbinder, Sägemehl) aufnehmen.

Neutralisationsmittel anwenden.

Kontaminiertes Material als Abfall nach Abschnitt 13 entsorgen.

Für ausreichende Lüftung sorgen.

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- **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.
Aerosolbildung vermeiden.
- **Hinweise zum Brand- und Explosionsschutz:** Keine besonderen Maßnahmen erforderlich.
- **7.2 Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten**
- **Lagerung:**
- **Anforderung an Lagerräume und Behälter:** Keine besonderen Anforderungen.
- **Zusammenlagerungshinweise:** Nicht erforderlich.
- **Weitere Angaben zu den Lagerbedingungen:** Behälter dicht geschlossen halten.
- **Lagerklasse:**
- **Klassifizierung nach Betriebssicherheitsverordnung (BetrSichV):** -
- **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:**

818-61-1 2-Hydroxyethylacrylat

MAK	vgl. Abschn. IV
-----	-----------------

- **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 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.

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überarbeitet am: 13.04.2016

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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. Da das Produkt eine Zubereitung aus mehreren Stoffen darstellt, ist die Beständigkeit von Handschuhmaterialien nicht vorausberechenbar und muß deshalb vor dem Einsatz überprüft werden.

· **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: Wahrnehmbar

· Geruchsschwelle: Nicht bestimmt.

· pH-Wert: Nicht bestimmt.

· **Zustandsänderung**

Schmelzpunkt/Schmelzbereich: Nicht bestimmt.

Siedepunkt/Siedebereich: > 246 °C

· **Flammpunkt:** > 93 °C

· **Entzündlichkeit (fest, gasförmig):** Nicht anwendbar.

· **Zündtemperatur:**

Zersetzungstemperatur: Nicht bestimmt.

· **Selbstentzündlichkeit:** Das Produkt ist nicht selbstentzündlich.

· **Explosionsgefahr:** Das Produkt ist nicht explosionsgefährlich.

· **Explosionsgrenzen:**

Untere: Nicht bestimmt.

Obere: Nicht bestimmt.

· **Dampfdruck:** Nicht bestimmt.

· **Dichte:** Nicht bestimmt.

· **Relative Dichte:** Nicht bestimmt.

· **Dampfdichte:** Nicht bestimmt.

· **Verdampfungsgeschwindigkeit:** Nicht bestimmt.

· **Löslichkeit in / Mischbarkeit mit**

Wasser: Nicht bzw. wenig mischbar.

· **Verteilungskoeffizient (n-Octanol/Wasser):** Nicht bestimmt.

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- | | |
|-------------------------------|--|
| · Viskosität: | |
| Dynamisch: | Nicht bestimmt. |
| Kinematisch: | Nicht bestimmt. |
| · Lösemittelgehalt: | |
| Organische Lösemittel: | 0.0 % |
| VOC (EU) | 0,00 % |
| · 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.

ABSCHNITT 11: Toxikologische Angaben

- **11.1 Angaben zu toxikologischen Wirkungen**
- **Akute Toxizität**
Gesundheitsschädlich bei Verschlucken oder Einatmen.
Lebensgefahr bei Hautkontakt.
- **Primäre Reizwirkung:**
- **Ätz-/Reizwirkung auf die Haut**
Verursacht schwere Verätzungen der Haut und schwere Augenschäden.
- **Schwere Augenschädigung/-reizung**
Verursacht schwere Verätzungen der Haut und schwere Augenschäden.
- **Sensibilisierung der Atemwege/Haut**
Kann allergische Hautreaktionen verursachen.
- **CMR-Wirkungen (krebserzeugende, erbgutverändernde und fortpflanzungsgefährdende Wirkung)**
- **Keimzell-Mutagenität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Karzinogenität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Reproduktionstoxizität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Spezifische Zielorgan-Toxizität bei einmaliger Exposition**
Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **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.

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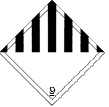

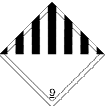
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- **Ökotoxische Wirkungen:**
- **Bemerkung:** Sehr giftig für Fische.
- **Weitere ökologische Hinweise:**
- **Allgemeine Hinweise:**
Darf nicht unverdünnt bzw. unneutralisiert ins Abwasser bzw. in den Vorfluter gelangen.
In Gewässern auch giftig für Fische und Plankton.
sehr giftig für Wasserorganismen
- **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.
- **Ungereinigte Verpackungen:**
- **Empfehlung:** Entsorgung gemäß den behördlichen Vorschriften.

ABSCHNITT 14: Angaben zum Transport

- | | |
|---|--|
| <ul style="list-style-type: none"> · 14.1 UN-Nummer · ADR, IMDG, IATA | <p style="text-align: right;">UN2810</p> |
| <ul style="list-style-type: none"> · 14.2 Ordnungsgemäße UN-Versandbezeichnung · ADR · IMDG · IATA | <p>2810 GIFTIGER ORGANISCHER FLÜSSIGER STOFF, N.A.G. (2-Hydroxyethylacrylat), UMWELTGEFÄHRDEND TOXIC LIQUID, ORGANIC, N.O.S. (2-hydroxyethyl acrylate), MARINE POLLUTANT
Toxic, liquids, organic, n.o.s. (2-hydroxyethyl acrylate)</p> |
| <ul style="list-style-type: none"> · 14.3 Transportgefahrenklassen · ADR, IMDG <div style="display: flex; align-items: center; gap: 10px;">   </div> <ul style="list-style-type: none"> · Klasse · Gefahrzettel | <p style="text-align: right;">6.1 Giftige Stoffe
9</p> |
| <ul style="list-style-type: none"> · IATA <div style="display: flex; align-items: center; gap: 10px;">  </div> <ul style="list-style-type: none"> · Class · Label | <p style="text-align: right;">6.1 Giftige Stoffe
9</p> |
| <ul style="list-style-type: none"> · 14.4 Verpackungsgruppe · ADR, IMDG, IATA | <p style="text-align: right;">III</p> |

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<ul style="list-style-type: none"> · 14.5 Umweltgefahren: · Marine pollutant: · Besondere Kennzeichnung (ADR): 	<p>Das Produkt enthält umweltgefährdende Stoffe: 2-Hydroxyethylacrylat</p> <p>Symbol (Fisch und Baum)</p> <p>Symbol (Fisch und Baum)</p>
<ul style="list-style-type: none"> · 14.6 Besondere Vorsichtsmaßnahmen für den Verwender · Kemler-Zahl: · EMS-Nummer: · Stowage Category · Stowage Code 	<p>Achtung: Giftige Stoffe</p> <p>90</p> <p>F-A,S-A</p> <p>A</p> <p>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 Nicht anwendbar. 	
<ul style="list-style-type: none"> · Transport/weitere Angaben: 	
<ul style="list-style-type: none"> · ADR · Begrenzte Menge (LQ) · Freigestellte Mengen (EQ) · Beförderungskategorie · Tunnelbeschränkungscode 	<p>5L</p> <p>Code: E1</p> <p>Höchste Nettomenge je Innenverpackung: 30 ml</p> <p>Höchste Nettomenge je Außenverpackung: 1000 ml</p> <p>3</p> <p>E</p>
<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) 	<p>5L</p> <p>Code: E1</p> <p>Maximum net quantity per inner packaging: 30 ml</p> <p>Maximum net quantity per outer packaging: 1000 ml</p>
<ul style="list-style-type: none"> · UN "Model Regulation": 	<p>UN 2810 GIFTIGER ORGANISCHER FLÜSSIGER STOFF, N.A.G. (2-HYDROXYETHYLACRYLAT), 9, III, UMWELTGEFÄHRDEND</p>

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** Keiner der Inhaltsstoffe ist enthalten.
- **Seveso-Kategorie**
H2 AKUT TOXISCH
E1 Gewässergefährdend
- **Mengenschwelle (in Tonnen) für die Anwendung in Betrieben der unteren Klasse** 50 t
- **Mengenschwelle (in Tonnen) für die Anwendung in Betrieben der oberen Klasse** 200 t
- **Nationale Vorschriften:**
- **Technische Anleitung Luft:**

Klasse	Anteil in %
I	26,0

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· **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.

· **Relevante Sätze**

H302 Gesundheitsschädlich bei Verschlucken.

H311 Giftig bei Hautkontakt.

H314 Verursacht schwere Verätzungen der Haut und schwere Augenschäden.

H315 Verursacht Hautreizungen.

H317 Kann allergische Hautreaktionen verursachen.

H319 Verursacht schwere Augenreizung.

H400 Sehr giftig für Wasserorganismen.

· **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

ELINCS: European List of Notified Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity, Hazard Category 4

Acute Tox. 2: Acute toxicity, Hazard Category 2

Acute Tox. 3: Acute toxicity, Hazard Category 3

Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1

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SEZIONE 1: Identificazione della sostanza o della miscela e della società/impresa

· **1.1 Identificatore del prodotto**

· **Denominazione commerciale:** LOWICRYL K4M MONOMER B

· **Articolo numero:** 14330(B)

· **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: info@emsdiasum.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**



GHS06 teschio e tibie incrociate

Acute Tox. 2 H310 Letale per contatto con la pelle.



GHS05 corrosione

Skin Corr. 1B H314 Provoca gravi ustioni cutanee e gravi lesioni oculari.



GHS09 ambiente

Aquatic Acute 1 H400 Molto tossico per gli organismi acquatici.



GHS07

Acute Tox. 4 H302 Nocivo se ingerito.

Acute Tox. 4 H332 Nocivo se inalato.

Skin Sens. 1 H317 Può provocare una reazione allergica cutanea.

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2.2 Elementi dell'etichetta**Etichettatura secondo il regolamento (CE) n. 1272/2008**

Il prodotto è classificato ed etichettato conformemente al regolamento CLP.

Pittogrammi di pericolo

GHS05 GHS06 GHS09

Avvertenza Pericolo**Componenti pericolosi che ne determinano l'etichettatura:**acrilato di 2-idrossietile
mechinolo**Indicazioni di pericolo**

H302+H332 Nocivo se ingerito o inalato.

H310 Letale per contatto con la pelle.

H314 Provoca gravi ustioni cutanee e gravi lesioni oculari.

H317 Può provocare una reazione allergica cutanea.

H400 Molto tossico per gli organismi acquatici.

Consigli di prudenzaP303+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.

P310 Contattare immediatamente un CENTRO ANTIVELENI/un medico.

P321 Trattamento specifico (vedere su questa etichetta).

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****3.2 Caratteristiche chimiche: Miscela****Descrizione:** Miscela delle seguenti sostanze con additivi non pericolosi.**Sostanze pericolose:**

CAS: 27813-02-1 EINECS: 248-666-3	acido metacrilico, monoestere con propan-1,2-diolo ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319	50-100%
CAS: 818-61-1 EINECS: 212-454-9	acrilato di 2-idrossietile ⚠ Acute Tox. 3, H311; ⚠ Skin Corr. 1B, H314; ⚠ Aquatic Acute 1, H400; ⚠ Skin Sens. 1, H317	25-50%
CAS: 150-76-5 EINECS: 205-769-8	mechinolo ⚠ Acute Tox. 4, H302; Eye Irrit. 2, H319; Skin Sens. 1, H317	2,5-10%

Ulteriori indicazioni: Il testo dell'avvertenza dei pericoli citati può essere appreso dal capitolo 16

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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.

In caso di respirazione irregolare o di blocco respiratorio praticare la respirazione artificiale.

· **Inalazione:**

Portare il soggetto in zona molto ben areata e per sicurezza consultare 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 e consultare il medico.

· **Ingestione:**

Chiamare subito il medico.

Bere abbondante acqua e sostare in zona ben areata. Richiedere immediatamente l'intervento del 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:**

In caso di infiltrazione nei corpi d'acqua o nelle fognature avvertire le autorità competenti.

· **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).

Utilizzare mezzi di neutralizzazione.

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.

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.

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- Evitare la formazione di aerosol.
- **Indicazioni in caso di incendio ed esplosione:** Non sono richiesti provvedimenti particolari.
- **7.2 Condizioni per lo stoccaggio sicuro, comprese eventuali incompatibilità**
- **Stoccaggio:**
- **Requisiti dei magazzini e dei recipienti:** Non sono richiesti requisiti particolari.
- **Indicazioni sullo stoccaggio misto:** Non necessario.
- **Ulteriori indicazioni relative alle condizioni di immagazzinamento:** Mantenere i recipienti ermeticamente chiusi.
- **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:**

150-76-5 mechinolo

TWA Valore a lungo termine: 5 mg/m³

- **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 e la pelle.

· Maschera protettiva:

Nelle esposizioni brevi e minime utilizzare la maschera; nelle esposizioni più intense e durature indossare l'autorespiratore.

· 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. Poiché il prodotto rappresenta una formulazione di più sostanze, la stabilità dei materiali dei guanti non è calcolabile in anticipo e deve essere testata prima dell'impiego

· Tempo di permeazione del materiale dei guanti

Richiedere dal fornitore dei guanti il tempo di passaggio preciso il quale deve essere rispettato.

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· **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:** Percettibile

· **Soglia olfattiva:** Non definito.

· **valori di pH:** Non definito.

· Cambiamento di stato

Temperatura di fusione/ambito di fusione: Non definito.

Temperatura di ebollizione/ambito di ebollizione: > 246 °C

· **Punto di infiammabilità:** > 93 °C

· **Infiammabilità (solido, gassoso):** Non applicabile.

· Temperatura di accensione:

Temperatura di decomposizione: Non definito.

· **Autoaccensione:** Prodotto non autoinfiammabile.

· **Pericolo di esplosione:** Prodotto non esplosivo.

· Limiti di infiammabilità:

Inferiore: Non definito.

Superiore: Non definito.

· **Tensione di vapore:** Non definito.

· **Densità:** Non definito.

· **Densità relativa** Non definito.

· **Densità del vapore** Non definito.

· **Velocità di evaporazione** Non definito.

· Solubilità in/Miscibilità con acqua:

Poco e/o non miscibile.

· **Coefficiente di distribuzione (n-Octanol/acqua):** Non definito.

· Viscosità:

Dinamica: Non definito.

Cinematica: Non definito.

· Tenore del solvente:

Solventi organici: 0,0 %

VOC (CE) 0,00 %

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· **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 o inalato.
Letale per contatto con la pelle.
- **Irritabilità primaria:**
- **Corrosione/irritazione cutanea**
Provoca gravi ustioni cutanee e gravi lesioni oculari.
- **Lesioni oculari gravi/irritazioni oculari gravi**
Provoca gravi ustioni cutanee e gravi lesioni oculari.
- **Sensibilizzazione respiratoria o cutanea**
Può provocare una reazione allergica cutanea.
- **Effetti CMR (cancerogenicità, mutagenicità e tossicità per la riproduzione)**
- **Mutagenicità delle cellule germinali**
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Cancerogenicità** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Tossicità per la riproduzione** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Tossicità specifica per organi bersaglio (STOT) - esposizione singola**
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **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.
- **Effetti tossici per l'ambiente:**
- **Osservazioni:** Molto tossico per i pesci.
- **Ulteriori indicazioni in materia ambientale:**
- **Ulteriori indicazioni:**
Non immettere il prodotto non diluito o non neutralizzato nelle acque di scarico e nei canali di raccolta.
Tossico per pesci e plancton.
Molto tossico per gli organismi acquatici

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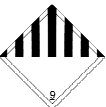
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- **12.5 Risultati della valutazione PBT e vPvB**
- **PBT:** Non applicabile.
- **vPvB:** Non applicabile.
- **12.6 Altri effetti avversi** Non sono disponibili altre informazioni.

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.

SEZIONE 14: Informazioni sul trasporto

· 14.1 Numero ONU · ADR, IMDG, IATA	UN2810
· 14.2 Nome di spedizione dell'ONU · ADR · IMDG · IATA	2810 LIQUIDO ORGANICO TOSSICO, N.A.S. (acrilato di 2-idrossietile), PERICOLOSO PER L'AMBIENTE TOXIC LIQUID, ORGANIC, N.O.S. (2-hydroxyethyl acrylate), MARINE POLLUTANT Toxic, liquids, organic, n.o.s. (2-hydroxyethyl acrylate)
· 14.3 Classi di pericolo connesso al trasporto · ADR, IMDG	
	
· Classe · Etichetta	6.1 Materie tossiche 9
· IATA	
	
· Class · Label	6.1 Materie tossiche 9
· 14.4 Gruppo di imballaggio · ADR, IMDG, IATA	III
· 14.5 Pericoli per l'ambiente: · Marine pollutant: · Marcatura speciali (ADR):	Il prodotto contiene materie pericolose per l'ambiente: acrilato di 2-idrossietile Simbolo (pesce e albero) Simbolo (pesce e albero)
· 14.6 Precauzioni speciali per gli utilizzatori · Numero Kemler: · Numero EMS:	Attenzione: Materie tossiche 90 F-A,S-A

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· Stowage Category	A
· Stowage Code	SW2 Clear of living quarters.
· 14.7 Trasporto di rinfuse secondo l'allegato II di MARPOL ed il codice IBC	Non applicabile.
· Trasporto/ulteriori indicazioni:	
· ADR	
· Quantità limitate (LQ)	5L
· Quantità esenti (EQ)	Codice: E1 Quantità massima netta per imballaggio interno: 30 ml Quantità massima netta per imballaggio esterno: 1000 ml
· Categoria di trasporto	3
· Codice di restrizione in galleria	E
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 2810 LIQUIDO ORGANICO TOSSICO, N.A.S. (ACRILATO DI 2-IDROSSIETILE), 9, III, PERICOLOSO PER L'AMBIENTE

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** Nessuno dei componenti è contenuto.
- **Categoria Seveso**
H2 TOSSICITÀ ACUTA
E1 Pericoloso per l'ambiente acquatico
- **Quantità limite (tonnellate) ai fini dell'applicazione dei requisiti di soglia inferiore 50 t**
- **Quantità limite (tonnellate) ai fini dell'applicazione dei requisiti di soglia superiore 200 t**
- **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.

- **Fraasi rilevanti**

- H302 Nocivo se ingerito.
- H311 Tossico per contatto con la pelle.
- H314 Provoca gravi ustioni cutanee e gravi lesioni oculari.
- H315 Provoca irritazione cutanea.
- H317 Può provocare una reazione allergica cutanea.
- H319 Provoca grave irritazione oculare.
- H400 Molto tossico per gli organismi acquatici.

- **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)

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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
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity, Hazard Category 4
Acute Tox. 2: Acute toxicity, Hazard Category 2
Acute Tox. 3: Acute toxicity, Hazard Category 3
Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1

IT

製品安全データシート

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1 化学物質等及び会社情報

- ・製品識別子
- ・商品名: **LOWICRYL K4M MONOMER B**
- ・製品番号: 14330(B)
- ・該当純物質または混合物の関連特定用途及び使用禁止用途 追加的な関連情報は得られていません。
- ・成分の種類/調合/調製用化学物質
- ・安全データシートの供給元の詳細情報
- ・製造者/納入者:
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- ・その他の情報問い合わせ先: Product safety department
- ・緊急通報用電話番号:
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 危険有害性の要約

- ・純物質または混合物の分類



頭蓋骨と大たい骨

急性毒性(経皮) 区分2

H310 皮膚に接触すると生命に危険



腐食

皮膚腐食性/刺激性 区分1B

H314 重篤な皮膚の薬傷及び眼の損傷



環境

水生環境有害性(急性毒性) 区分1 H400 水生生物に非常に強い毒性



急性毒性(経口) 区分4

H302 飲み込むと有害

急性毒性(吸入) 区分4

H332 吸入すると有害

感作性(皮膚) 区分1

H317 アレルギー性皮膚反応を起こすおそれ

- ・ラベル要素

- ・GHS ラベル要素

本製品はGHS(化学品の分類および表示に関する世界調和システム)により分類及び表示されています。

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・危険図表



GHS05 GHS06 GHS09

・表示語 危険

・危険と定められた成分をラベル表示:

2-hydroxyethyl acrylate

mequinol

・危険文句

飲み込んだり, 吸入すると有害

皮膚に接触すると生命に危険

重篤な皮膚の薬傷及び眼の損傷

アレルギー性皮膚反応を起こすおそれ

水生生物に非常に強い毒性

・注意文句

皮膚(または髪)に付着した場合: 直ちに汚染された衣類をすべて脱ぐこと。皮膚を流水/シャワーで洗うこと。

眼に入った場合: 水で数分間注意深く洗うこと。次にコンタクトレンズを着用していて容易に外せる場合は外すこと。その後も洗浄を続けること。

ただちに毒物センター/医師に連絡すること。

特別な処置が必要である(このラベルのを見よ)。

施錠して保管すること。

現地/地域/国/国際規定に従い内容物・容器の露出

・その他の危険性

・PBT (残留性、生物濃縮性、毒性物質) 及び vPvB (高残留性、高生物濃縮性物質) アセスメント

・PBT (残留性、生物濃縮性、毒性物質): 情報なし

・vPvB (高残留性、高生物濃縮性物質): 情報なし

3 組成・成分情報

・化学的特性: 混合物

説明説明説明のない混ぜ合わせかたをした以下成分からなる混合物

・危険な含有成分:

27813-02-1	methacrylic acid, monoester with propane-1,2-diol ⚠ 皮膚腐食性/刺激性 区分2, H315; 重篤な眼の損傷性/眼刺激性 区分2A, H319	50-100%
818-61-1	2-hydroxyethyl acrylate ⚠ 急性毒性(経皮) 区分3, H311; ⚠ 皮膚腐食性/刺激性 区分1B, H314; ⚠ 水生環境有害性(急性毒性) 区分1, H400; ⚠ 感作性(皮膚) 区分1, H317	25-50%
150-76-5	mequinol ⚠ 急性毒性(経口) 区分4, H302; 重篤な眼の損傷性/眼刺激性 区分2, H319; 感作性(皮膚) 区分1, H317	2,5-10%

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4 応急措置

・応急手当処置に関する説明

・一般情報:

プロダクトの付着した衣類は速やかに脱ぐこと

中毒症状は時間がかかり経過した後に現れる場合もあるため、事故後最低 4 8 時間は医師の監視のもとで過ごすこと

呼吸が不規則な場合あるいは呼吸停止の際には人工呼吸器を使用のこと

・吸い込んだ場合:

外気を十分に送り込み、安全のため医師を呼ぶ

意識不明の場合には安定させた状態で横向きに寝かせ、移送する

・皮膚が触れた場合: 即刻石鹸と水で洗い、よくすすぐ

・眼に入った場合: 瞼を開けたまま、流水で何分間か眼をすすぎ、医者に相談する

・飲み込んだ場合:

即医師を呼ぶ

十分水を飲み、外気を吸う。速やかに医師を呼ぶ

・医師への指示事項:

・最も重要な急性及び慢性の症状及び影響 追加的な関連情報は得られていません。

・何らかの即時医療処置及び特別治療の必要性を示す兆候 追加的な関連情報は得られていません。

5 火災時の措置

・消火剤

・適切な消火剤:

CO₂, 消火粉末剤あるいは水放射。火が大きい場合には水放射もしくは耐アルコール性泡を使用

・本化学物質または混合物から発生する特別な危険性 追加的な関連情報は得られていません。

・消防士向けアドバイス

・特別な保護装備: 呼吸保護マスクを着用

6 漏出時の措置

・個人的予防措置、保護具及び応急処置法 防護服を着用。防護服を着用していない人は近づけない

・環境関連予防措置: 河川、下水処理施設に流れ込んだ場合には関係当局に連絡する

・封じ込め及び浄化のための方法及び材料:

液体吸収材 (砂、珪藻土、酸結合剤、ユニバーサル結合剤、おがくず) で吸収する

中和剤を使用

13 項に下がい汚染材は廃棄物として処理する

十分な換気を心がける

・他のセクションへの言及

安全な取り扱い方に関しては 7 項を参照

人の保護装備の情報に関しては 8 項を参照

廃棄処分に 대해서는 13 項参照

7 取扱い・保管上の注意

・取り扱い方:

・安全操作のための予防措置

作業場では十分な換気、埃を吸い取るよう心がける

エアゾールの発生を防ぐ

・火災および爆発防止に関する注意事項: 特別な措置は必要ない

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- ・ 混融危険性を含めた安全貯蔵条件
- 保管保管保管
- ・ 保管スペースおよび容器に関する要求事項: 特別な要求事項なし
- ・ 同じ場所に保管する際の注意事項: 必要ない
- ・ 保管条件に関するその他の注意事項: 容器は密閉した状態に保つ
- ・ 特定の最終用途 追加的な関連情報は得られていません。

8 暴露防止及び保護措置

- ・ 技術設備の形体に関する追加注意事項: その他の申し立てなし、7項参照
- ・ 管理パラメーター
- ・ 作業場において限界値の監視を要する成分:
このプロダクトは作業場において監視する必要がある限界値を持つ成分は含まれていない
- ・ 追加注意事項: 生成時に有効なリストがもとなっている
- ・ 暴露管理
- ・ 人的保護装備:
- ・ 一般防止措置および衛生措置:
食物、飲み物、飼料からは遠ざける
汚れのしみ込んだ衣類は即刻脱ぐ
休憩の前、作業終了後には手を洗う
防護服は別に保管する
眼に入らないよう、また皮膚に接触しないよう注意する
- ・ 呼吸保護器具:
短時間もしくは負担が小さい場合には呼吸フィルター付装置を、集中的にあるいは長時間触れる場合には、酸素ボンベ付き呼吸保護装備を使用すること
- ・ 手の保護:



保護手袋

手袋の材質は物質/材料/調合剤に対して耐性であり、成分を通すことがあってはならない
テストをおこなっていないため、物質/調合剤/化合物を取り扱う際の手袋の材質として勧められるもの
はない
浸透時間、透過性および劣化の点を留意しながら手袋の材質を選択する

手袋材

適当な手袋は材質だけではなく、その他の品質によっても変わり、各メーカーによって異なる。調合する際の物質は複数の成分から生成されるため、手袋材の耐久性は予想できない。このため使用前には必ずチェックしなければならない

- ・ 手袋材の浸透時間 正確な浸透時間については保護手袋メーカーに問い合わせ、それを遵守すること
- ・ 眼の保護:



密閉式保護めがね

JP

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9 物理的及び化学的性質

・基本的な物理及び化学特性に関する情報	
・一般指示事項	
外観外観外観	
形:	液体
色:	無色
・におい:	知覚できる
・嗅覚閾値:	決まっていない。
・pH-値:	決まっていない。
・状態の変化	
融点融点融解範囲:	決まっていない
沸点沸点沸騰範囲:	> 246 °C
・引火点:	> 93 °C
・発火性(個体、気体):	情報なし
発火温度温度	
分解温度温度	決まっていない。
自然自然発火性:	プロダクトは自然発火しない
・爆発の危険:	プロダクトは爆発する危険はない
・爆発限界:	
下限:	決まっていない。
上限:	決まっていない。
・蒸気圧:	決まっていない。
密度密度密度	決まっていない
相対相対比重密度	決まっていない。
・蒸気密度	決まっていない。
・拡散速度	決まっていない。
以下以下成分における消和性/との混和性	
水:	混ぜ合わせられない、ほとんど混ぜ合わせられない
・分配係数(オクタノール/水)	決まっていない。
・粘性:	
学的学的	決まっていない。
運動運動	決まっていない。
・溶剤含有量:	
機液機液	0.0 %
・他の情報	追加的な関連情報は得られていません。

10 安定性及び反応性

応答性追加的な関連情報は得られていません。

・化学的安定性

分解分解分解条件規定どおりの使用では分解しない
危険危険危険可能危険な反応は起きていない

け避け条件追加的な関連情報は得られていません。

・不適合物質: 追加的な関連情報は得られていません。

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製品安全データシート

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・危険な分解生成物: 危険な分解プロダクトはない

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11 有害性情報

・毒性学的影響に関する情報

・急性毒性:

・初期刺激作用

・皮膚において: 皮膚と粘膜に強い刺激作用

・眼において: 強い刺激作用

・感作作用: 皮膚接触によって感作作用の可能性あり

・毒性に関する補足補足補足事項:

調合に関するEUの最新の一般分類ガイドラインの計算によれば、プロダクトでは以下の危険が見込まれる

毒性がある

腐食作用

刺激的

毒性が非常に強い

経皮吸収の危険

飲み込んだ場合、口内およびのどに強い刺すような痛み、同時に食道および胃に穿孔の危険

12 環境影響情報

毒性毒性毒性

・水生生物に対する毒性: 追加的な関連情報は得られていません。

持続持続性及び分解性 追加的な関連情報は得られていません。

・環境システムにおける作用:

生体生体内蓄積能 追加的な関連情報は得られていません。

・土壌内移動性 追加的な関連情報は得られていません。

・生態毒性作用:

・注: 魚類に対して毒性が非常に高い

・その他のエコロジーに関する注意事項:

・一般注意事項:

希薄せずにあるいは中和せずに、廃水もしくは導水路に流してはならない

水域においては魚やプランクトンにも毒性がある

水生生物にとり非常に毒性が高い

・PBT (残留性、生物濃縮性、毒性物質) 及び vPvB (高残留性、高生物濃縮性物質) アセスメント

・PBT (残留性、生物濃縮性、毒性物質): 情報なし

・vPvB (高残留性、高生物濃縮性物質): 情報なし

他の他作用作用追加的な関連情報は得られていません。

13 廃棄上の注意

廃棄廃棄物処理方法

勧告勧告家庭ごみとはいっしょに処分できない。下水処理施設に流してはならない

・洗浄されていないガジェット:

勧告勧告関係当局の規則に従って処分する

JP

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製品安全データシート

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14 輸送上の注意

<ul style="list-style-type: none"> 番号番号番号 ADR, IMDG, IATA 	UN2810
<ul style="list-style-type: none"> 国連出荷正式名 ADR IMDG IATA 	2810 TOXIC LIQUID, ORGANIC, N.O.S. (2-hydroxyethyl acrylate), ENVIRONMENTALLY HAZARDOUS TOXIC LIQUID, ORGANIC, N.O.S. (2-hydroxyethyl acrylate), MARINE POLLUTANT Toxic, liquids, organic, n.o.s. (2-hydroxyethyl acrylate)
輸送輸送輸危険性クラス <ul style="list-style-type: none"> ADR, IMDG 	
分類分類分類 <ul style="list-style-type: none"> 危険物ラベル 	6.1 毒性成分 9
<ul style="list-style-type: none"> IATA <ul style="list-style-type: none"> Class Label 	6.1 毒性成分 9
パッケージの分類 <ul style="list-style-type: none"> ADR, IMDG, IATA 	III
<ul style="list-style-type: none"> 環境危険: 海液汚染物質 特別特別特別キング (ADR): 	このプロダクトには環境に毒性のある成分が含まれている: 2-hydroxyethyl acrylate シンボル (魚やツリー) シンボル (魚やツリー)
<ul style="list-style-type: none"> ユーザー用特別予防措置 ケムケムケム符号: EMS (電子メールサービスナンバ番号番号番号) Stowage Category Stowage Code 	警告: 毒性成分 90 F-A,S-A A SW2 Clear of living quarters.
<ul style="list-style-type: none"> マルポール条約 (MARPOL73/78) 付属書I及び及び IBCコードに準じたバ輸送輸送輸送 	情報なし
輸送輸送輸送他の説明: <ul style="list-style-type: none"> ADR Excepted quantities (EQ) IMDG Limited quantities (LQ) 	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml 5L

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製品安全データシート

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・ Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
・ UN 規範規制規制	UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. (2-HYDROXYETHYL ACRYLATE), 9, III, ENVIRONMENTALLY HAZARDOUS

15 適用法令

- ・ 該当純物質または混合物に対する安全、衛生及び環境規制・法律
- ・ 化審法

既存既存懸浮物質

27813-02-1	methacrylic acid, monoester with propane-1,2-diol	2-958
818-61-1	2-hydroxyethyl acrylate	2-995
142-09-6	Hexylmethacrylate	2-1039
150-76-5	mequinol	3-567

・ 特定化学物質

内容成分はリストアップされていない

・ 監視化学物質、旧第二種監視化学物質、旧第三種監視化学物質

818-61-1	2-hydroxyethyl acrylate	旧第二種監視化学物質
142-09-6	Hexylmethacrylate	旧第二種監視化学物質

・ 評価評価懸浮物質

内容成分はリストアップされていない

物質物質物質

内容成分はリストアップされていない

既存既存懸浮物質安全性点検結果 (分解性・蓄積性)

818-61-1	2-hydroxyethyl acrylate
150-76-5	mequinol

既存既存懸浮物質安全性点検結果 (毒性)

内容成分はリストアップされていない

・ PRTR Class 1 designated substances PR制度制度制第一種指定化学物質

818-61-1	2-hydroxyethyl acrylate
----------	-------------------------

・ PRTR Class 2 designated substances PR制度制度制第二種指定化学物質

内容成分はリストアップされていない

・ Poisonous and Deleterious Substances Control Act - Deleterious Substances 毒物及劇物取締法 - 劇物

内容成分はリストアップされていない

・ Poisonous and Deleterious Substances Control Act - Poisonous Substances 毒物及劇物取締法 - 毒物

内容成分はリストアップされていない

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製品安全データシート

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・ Poisonous and Deleterious Substances Control Act - Specified Poisonous Substances 毒物及劇物取締法 - 特定毒物

内容成分はリストアップされていない

・ GHS ラベル要素

本製品はGHS(化学品の分類および表示に関する世界調和システム)により分類及び表示されています。

・ 危険図表



GHS05 GHS06 GHS09

・ 表示語 危険

・ 危険と定められた成分をラベル表示:

2-hydroxyethyl acrylate
mequinol

・ 危険文句

飲み込んだり, 吸入すると有害
皮膚に接触すると生命に危険
重篤な皮膚の薬傷及び眼の損傷
アレルギー性皮膚反応を起こすおそれ
水生生物に非常に強い毒性

・ 注意文句

皮膚(または髪)に付着した場合: 直ちに汚染された衣類をすべて脱ぐこと。皮膚を流水 / シャワーで洗うこと。

眼に入った場合: 水で数分間注意深く洗うこと。次にコンタクトレンズを着用していて容易に外せる場合は外すこと。その後も洗浄を続けること。

ただちに毒物センター/医師に連絡すること。

特別な処置が必要である(このラベルのを見よ)。

施錠して保管すること。

現地/地域/国/国際規定に従い内容物・容器の露出

・ 化学物質の安産値評価評価化学物質安全性評価が遂行されていない

16 その他の情報

この情報は現在の我々の認識に基づいている。ただし、プロダクトの特性を保証するものではなく、また契約において法的根拠にはならない

・ 縮約と二文字語:

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

ELINCS: European List of Notified Chemical Substances

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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

PRTR/化管法: 化学物質排出把握管理促進法

急性毒性(経口) 区分4: Acute toxicity, Hazard Category 4

急性毒性(経皮) 区分2: Acute toxicity, Hazard Category 2

急性毒性(経皮) 区分3: Acute toxicity, Hazard Category 3

皮膚腐食性/刺激性 区分1B: Skin corrosion/irritation, Hazard Category 1B

皮膚腐食性/刺激性 区分2: Skin corrosion/irritation, Hazard Category 2

重篤な眼の損傷性/眼刺激性 区分2: Serious eye damage/eye irritation, Hazard Category 2

重篤な眼の損傷性/眼刺激性 区分2A: Serious eye damage/eye irritation, Hazard Category 2A

感作性(皮膚) 区分1: Sensitisation - Skin, Hazard Category 1

水生環境有害性(急性毒性) 区分1: Hazardous to the aquatic environment - AcuteHazard, Category 1

안전지침서

제조조의와 2006/에 따라라따

기압점: 2016.04.13

개정: 2016.04.13

1 화학제품과 회사에 관한 정보

제품제품제자

· **제품명: LOWICRYL K4M MONOMER B**

· **상품번호: 14330(B)**

해당해당해당질이나 혼합물(의)관련(의)응도 및 사용금지응도 추가적인 정보가 존재하지 않습니다.

· **제품의 권고 용도와 사용(의) 제한(의) 함 실험 실 화 학 품**

· **안전데이터표(Safety Data Sheet)내 공급업체 관련(의) 정보**

· **제조자/수입자/유통업체 정보정보**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

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

email: info@emsdiasum.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

· **추가적인 정보(의) 등(의) 가능(의) duct safety department**

· **비상연락 전화번호:**

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

2 유해성.위험성

· **순물질 또는 혼합물(의) 분류분류**



두개골과 대퇴골

급성 독성(경피) 구분2 H310 피부와 접촉하면 치명적임



부식

피부 부식성/자극성 구분1 H314 피부에 심한 화상과 눈에 손상을 일으킴



환경

수생환경유해성-급성 구분1 H400 수생생물에 매우 유독함



급성 독성(경구) 구분4 H302 삼키면 유해함

급성 독성(흡입) 구분4 H332 흡입하면 유해함

피부과민성 구분1 H317 알레르기성 피부 반응을 일으킬 수 있음

(2 쪽에 계속)

안전지침서

제조조의와 2006/2006/E에 따라라따

기압점: 2016.04.13

개정: 2016.04.13

제품명: LOWICRYL K4M MONOMER B

(1 쪽부터계속)

· 라벨표가 요소요소

· 라벨표가 요소요소

본 제품은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.

· 그림문자



GHS05 GHS06 GHS09

· 신호어 위험

· 상표상에명확히위험성이표시된성분:

2-hydroxyethyl acrylate
mequinol

유해 ~~유해~~ ~~유해~~ ~~유해~~ 문구

- 삼키거나 흡입하면 유해함.
- 피부와 접촉하면 치명적임
- 피부에 심한 화상과 눈에 손상을 일으킴
- 알레르기성 피부 반응을 일으킬 수 있음
- 수생생물에 매우 유독함

· 예방조치 문구문구

- 피부(모발)에 접촉 시: 모든 오염된 옷을 즉시 벗으시오 피부를 물/샤워로 행구시오.
- 눈에 묻으면 몇 분간 물로 조심해서 씻으시오. 가능하면콘택트렌즈를 제거하시오. 계속 씻으시오.
- 즉시 독성물질센터/병원 연락 필요.
- (라벨 참조) 처치를 하시오.
- 잠금장치가 있는 저장장소에 저장 하시오.

현지/지역/국가/국제 규정에 따라서 내용물/용기 노출

기타기타 ~~유해성~~

- PBT(잔류성, 생물농축성, 독성물질) 및 vPvB(고 잔류성, 고 생물농축성) 물질이 포함되어 있는지에 대한 결과
- PBT(잔류성, 생물농축성, 독성물질) 물질에 해당 없음.
- vPvB(고 잔류성, 고 생물농축성) 물질에 해당 없음.

3 구성성분의 명칭 및 함유량

· 화학적 특성: 혼합물

설명설명설명해한 첨가물 이 함유된 아래에 열거된 물질로 만들어진 혼합물.

· 위험요소요소

27813-02-1	methacrylic acid, monoester with propane-1,2-diol ! 피부 부식성/자극성 구분2, H315; 심한 눈 손상/자극성 구분2, H319	50-100%
818-61-1	2-hydroxyethyl acrylate 급성 독성(경피) 구분3, H311; 피부 부식성/자극성 구분1, H314; 수생환경유해성-급성 구분1, H400; 피부과민성 구분1, H317	25-50%
150-76-5	mequinol ! 급성 독성(경구) 구분4, H302; 심한 눈 손상/자극성 구분2, H319; 피부과민성 구분1, H317	2,5-10%

KR

(3 쪽에계속)

안전지침서

제조조의와 2006/EL에 따라라따

기압점: 2016.04.13

개정: 2016.04.13

제품명: LOWICRYL K4M MONOMER B

(3 쪽부터계속)

화재화재위험을피발과발 예방대책에 관한정보는정보별 한 조 치 가 필 요없음.

- 혼합위험성등안정성정보조건
- 보관보관보관
- 안전장경장경장정보별 한 요구사항이 없음.
- 하남공공공공 시설에 대한정보는정보없음
- 보관 조건에 관한 추가정보정보를새지않게밀폐한채보관한다.
- 구체적 최종 최종자 추가적인 정보가 존재하지 않습니다.

8 노출방지 및 개인보호구

- 첨단시설 디자인에 대한 추가정보: 더 이상 의 자료는 없음. 항 목 7 을 참고하시 오.

통제 통제 통제 변수

- 화학물질의 노출기준, 생물학적 노출기준 등:

150-76-5 mequinol

TLV (KR)	장기간의값: 5 mg/m ³
REL (US)	장기간의값: 5 mg/m ³
TLV (US)	장기간의값: 5 mg/m ³

- 추가정보정보조 할 당시에 유 효 한 목 록을 기초로 사용했다.

노출 통제 통제 통제

개인 개인 보호 구

- 일반적보호조치및위생조치:

- 식료품, 음료수와 사료로부터 멀리 떨어져 뜨려 놓는다.
- 더러워지거나 음료수가 묻은 옷은 즉시 탈의한다.
- 휴식 전 이 나 작업이 끝날때마다 손을 씻는다.
- 방호복은 따로 보관한다.
- 눈과 피부와의 접촉은 피한다.

- 호흡기 보호 보호

- 단 시간 또는 경미한 오염의 경우에는 호흡 여과기를 사용한다. 심각한 또는 장기간 노출시에는 호흡 보호장비를 사용한다.

보수 보호 보호



보호용 장갑

- 장갑재질은제품 / 원료 / 조제를투과시키지않아야하고, 내구성이있어야한다.
- 테스트를 하지 않았기 때문에 제품 / 조제 / 화학 혼합물에 적합한 장갑재질에 대한 추천이 없다.
- 투과 시간, 침투율과 저하를 고려해서 장갑 재료를 선택한다.

- 장갑의재료

- 적합한장갑의선택은재질차이뿐만아니라품질기준의차이도고려하여이루어져야하고제조업종에따라서도다르게선택되어야한다. 제품은다양한재료로부터의조제로이루어지는것이기때문에, 장갑재질의안정성은사전에예측되어질수있는것이아니고, 반드시사용전에 (그안전성이) 체크되어야한다.

- 장갑 재료의 투과 시간 정확관통시간은보호장갑제조자에의하여인지되고, 준수되어야한다.

(5 쪽에계속)

안전지침서

제조의약품/2006/ED에 따라라따

기압점: 2016.04.13

개정: 2016.04.13

제품명: LOWICRYL K4M MONOMER B

보호 보호 보호

(4 쪽부터 계속)



꼭조이는보안경

9 물리화학적 특성

기본 정보 물리화학적 특성에 대한 기본 정보

· 일반정보	
외형외형의형	액체
· 물리적 상태 상태	액체
· 색:	색소가 없는
냄새 냄새 냄새	인지할 수 있는
· 후각역치	알맞지 않다.
· pH:	알맞지 않다.
· 상태변화	
· 녹는 점/어는 점:	맞지 않는
초기초기 녹는 점과 끓는 점 범위 범위	> 246 °C
· 인화점:	> 93 °C
· 인화성 고체/기체/기체	해당 사항 없음.
· 점화 온도:	
분해 온도	알맞지 않다.
· 자기점화:	이제품은 자연발화성이 없다.
· 폭발 위험:	이제품은 폭발 위험성이 없다
인화 안정성/폭발 위험성 상한/하한	하한
· 아래로:	알맞지 않다.
위로 위로 위로	알맞지 않다.
· 증기압:	알맞지 않다.
밀도 밀도 밀도	맞지 않는다.
비중 비중 비중	알맞지 않다.
· 증기 밀도:	알맞지 않다.
증발 증발 증발 속도	알맞지 않다.
· 용해도:	
· 물:	각각의 경우에 따라서는 거의 혼합할 수 없는
· n 옥탄올/물 분배계수:	알맞지 않다.
점도 점도 점도	
· 역학성:	알맞지 않다.
· 동점성:	알맞지 않다.
· 용매 내용물	
· 유기용매:	0.0 %
· VOC (EU)	0.00 %

(6 쪽에 계속)

안전지침서

제조조의와/2006/E에 따라라따

기압점: 2016.04.13

개정: 2016.04.13

제품명: LOWICRYL K4M MONOMER B

(5 쪽부터계속)

기타 정보 정보 추가적인 정보가 존재하지 않습니다.

10 안정성 및 반응성

- 반응성 추가적인 정보가 존재하지 않습니다.
- 화학적 안정성
- 화학적 안정성 유해 반응의 가능성 / 피해야한 조건 규정 에 따라 사용 할 경우 해체는 없다
- 유해반응 가능성 위험한 반응으로는 알려지지 않았다.
- 피해야한 조건 추가적인 정보가 존재하지 않습니다.
- 혼합 유해분해물 추가적인 정보가 존재하지 않습니다.
- 유해분해물질: 위험성 있는 분해물들은 알려지지 않았다.

11 독성에 관한 정보

- 독성학적 영향에 대한 정보
- 급성 독성 독성 독성
- 일차적 자극 효과
- 피부 피부 부식성 또는 자극성: 피부와 점막에 강한 부식 작용.
- 심한 심한 부식성 또는 자극성: 강한 부식 작용
- 감각화: 피부 접촉을 통하여 감각화 가능성이 있다.
- 추가적인 독성에 관한 정보
- 이제 품은 유럽 공동체의 공동 분류 원칙의 합법적인 절차에 근거하여 최근에 발효된 원고에서 아래 위험들의 사전 준비에 대하여 제시하고 있다.
- 건강에 해로운
- 부식 작용의
- 자극적인
- 맹독성의
- 피부 유입 시 위험
- 삼킬 경우 식도나 위 등의 내장 기관 벽에 상처를 주는 위험과 마찬가지로 입 주변이나 구강에 강한 부식 작용을 한다

12 환경에 미치는 영향

- 독성 독성 독성
- 수생 독성: 추가적인 정보가 존재하지 않습니다.
- 지속성 및 분해성 추가적인 정보가 존재하지 않습니다.
- 환경 시스템에서의 행동:
- 생물농축 잠재성 추가적인 정보가 존재하지 않습니다.
- 토양 내 이동성 추가적인 정보가 존재하지 않습니다.
- 생태 독성:
- 의견의견의견류 에 매우 독성임
- 추가적인 생태학 정보 정보
- 일반 일반 정보 특징
- 희석시키지 않은 채 또는 중화시키지 않은 채 하수 도나 배수로에도 달하지 않게 해야 한다.
- 하천에서는 역시 물고기나 플랑크톤에게는 독성이 있다.
- 물속의 유기체에 아주 독이 되는 것
- PBT(잔류성, 생물농축성, 물질분해성) 및 vPvB(고 잔류성, 고 생물농축성, 물질분해성) 결과
- PBT(잔류성, 생물농축성, 물질분해성) 당사항 없음.
- vPvB(고 잔류성, 고 생물농축성, 물질분해성) 당사항 없음.

(7 쪽에 계속)

안전지침서

제조조의와 2006/EL에 따라라따

기압점: 2016.04.13

개정: 2016.04.13

제품명: LOWICRYL K4M MONOMER B

기타기타 **부작용** 추가적인 정보가 존재하지 않습니다.

(6 쪽부터계속)

13 폐기시 주의사항

- 폐기물처리방법
권고권고관할쓰레기와함께처리되어서는안된다. 하수도망으로유입되어서는안된다.
- 비위생적 포장포장
권고권고관국의지침에입각한쓰레기처리.

14 운송에 필요한 정보

유엔 유엔번호 · ADR, IMDG, IATA	UN2810
지정적정명 · ADR · IMDG · IATA	2810 TOXIC LIQUID, ORGANIC, N.O.S. (2-hydroxyethyl acrylate), ENVIRONMENTALLY HAZARDOUS TOXIC LIQUID, ORGANIC, N.O.S. (2-hydroxyethyl acrylate), MARINE POLLUTANT Toxic, liquids, organic, n.o.s. (2-hydroxyethyl acrylate)
교통 위험 라벨 · ADR, IMDG 	6.1 독성물질 9
등급 등급 등급 · 위험 라벨라벨 · IATA 	6.1 독성물질 9
용기등급 · ADR, IMDG, IATA	III
환경적 유해물질: · 해양오염물질: 특수 목적 포장 (R):	이물질은환경오염물질을함유하고있다: 2-hydroxyethyl acrylate 심벌 (물고기와 나무) 심벌 (물고기와 나무)
이동지침 특별 취급 조치 위험 위험 코드 · E 번호 번호 · Stowage Category	경고: 독성물질 90 F-A,S-A A

(8 쪽에계속)

안전지침서
제조조의와 2006/E 2에 따라라따

기압점: 2016.04.13

개정: 2016.04.13

제품명: LOWICRYL K4M MONOMER B

(7 쪽부터계속)

· Stowage Code	SW2 Clear of living quarters.
· MARPOL73/78(선박으로부터의 해양오염방지협약) 부속서2 및 IBC Code(국제선적화물코드)에 따라 벌크별/별개별/총운송/총운송	해당사항 없음.
· 운송/추가정보	
· ADR 한정수량(수량 제한) · Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
운송/분류구분 터널/대형/대형/대형 코드	3 E
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN번호/위험등급/유체	UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. (2-HYDROXYETHYL ACRYLATE), 9, III, ENVIRONMENTALLY HAZARDOUS

15 법적 규제현황

해당 해당 물질 또는 혼합물에 대한 국내/외부 규제사항을 기재한 법률

· Korean Existing Chemical Inventory		
27813-02-1	methacrylic acid, monoester with propane-1,2-diol	KE-25135
818-61-1	2-hydroxyethyl acrylate	KE-20489
142-09-6	Hexylmethacrylate	KE-25023
150-76-5	mequinol	KE-23353

· (라벨/표지/유체) 요소
본 제품은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.

· 그림문자



GHS05 GHS06 GHS09

· 신호어 위험

· 상표상에명확히위험성이표시된성분:

2-hydroxyethyl acrylate

mequinol

유해/위험/유해/위험 문구

삼키거나 흡입하면 유해함.
피부와 접촉하면 치명적임
피부에 심한 화상과 눈에 손상을 일으킴
알레르기성 피부 반응을 일으킬 수 있음
수생생물에 매우 유독함

(9 쪽에계속)

안전지침서

제조조의 위험성/2006/EU에 따라라따

기압점: 2016.04.13

개정: 2016.04.13

제품명: LOWICRYL K4M MONOMER B

(8 쪽부터계속)

- **예방조치** 문구문구
 - 피부(모발)에 접촉 시: 모든 오염된 옷을 즉시 벗으시오 피부를 물/샤워로 행구시오.
 - 눈에 물으면 몇 분간 물로 조심해서 씻으시오. 가능하면콘택트렌즈를 제거하시오. 계속 씻으시오.
 - 즉시 독성물질센터/병원 연락 필요.
 - (라벨 참조) 처치를 하시오.
 - 잠금장치가 있는 저장장소에 저장하시오.
 - 현지/지역/국가/국제 규정에 따라서 내용물/용기 노출
- **화학물질 안전성 평가** 화학물질 안전성 평가가 수행되지 않음

16 그 밖의 참고사항

이보고는우리지식에대한오늘날의상태에대하여평가하고있다, 하지만이보고서는생산특성에관한보증은 기술하지않았으며계약적인법을관계에기반을두고있지도않다

최초 **최초 작성일자**: 2016.04.13

개정 **개정 일자** / **최종 개정 일자**: 1 / 2016.04.13

· **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
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- VOC: Volatile Organic Compounds (USA, EU)
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- 급성 독성(경구) 구분4: Acute toxicity, Hazard Category 4
- 급성 독성(경피) 구분2: Acute toxicity, Hazard Category 2
- 급성 독성(경피) 구분3: Acute toxicity, Hazard Category 3
- 피부 부식성/자극성 구분1: Skin corrosion/irritation, Hazard Category 1
- 피부 부식성/자극성 구분2: Skin corrosion/irritation, Hazard Category 2
- 심한 눈 손상/자극성 구분2: Serious eye damage/eye irritation, Hazard Category 2
- 심한 눈 손상/자극성 구분2: Serious eye damage/eye irritation, Hazard Category 2
- 피부과민성 구분1: Sensitisation - Skin, Hazard Category 1
- 수생환경유해성-급성 구분1: Hazardous to the aquatic environment - AcuteHazard, Category 1

Ficha de dados de segurança

Em conformidade com 1907/2006/CE, Artigo 31.º

data da impressão 13.04.2016

Revisão: 13.04.2016

SECÇÃO 1: Identificação da substância/mistura e da sociedade/empresa

- **1.1 Identificador do produto**
- **Nome comercial:** LOWICRYL K4M MONOMER B
- **Código do produto:** 14330(B)
- **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: info@emsdiasum.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**



GHS06 caveira sobre tóxicas cruzadas

Acute Tox. 2 H310 Mortal em contacto com a pele.



GHS05 corrosão

Skin Corr. 1B H314 Provoca queimaduras na pele e lesões oculares graves.



GHS09 ambiente

Aquatic Acute 1 H400 Muito tóxico para os organismos aquáticos.



GHS07

Acute Tox. 4 H302 Nocivo por ingestão.

Acute Tox. 4 H332 Nocivo por inalação.

Skin Sens. 1 H317 Pode provocar uma reacção alérgica cutânea.

- **2.2 Elementos do rótulo**
- **Rotulagem em conformidade com o Regulamento (CE) n.º 1272/2008**
O produto classificou-se e está etiquetado em conformidade com o regulamento CLP.

(continuação na página 2)

Ficha de dados de segurança

Em conformidade com 1907/2006/CE, Artigo 31.º

data da impressão 13.04.2016

Revisão: 13.04.2016

Nome comercial: **LOWICRYL K4M MONOMER B**

(continuação da página 1)

· **Pictogramas de perigo**

GHS05 GHS06 GHS09

· **Palavra-sinal Perigo**· **Componentes determinantes para os perigos constantes do rótulo:**acrilato de 2-hidroxietilo
mequinol· **Advertências de perigo**

H302+H332 Nocivo por ingestão ou inalação.

H310 Mortal em contacto com a pele.

H314 Provoca queimaduras na pele e lesões oculares graves.

H317 Pode provocar uma reacção alérgica cutânea.

H400 Muito tóxico para os organismos aquáticos.

· **Recomendações de prudência**

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.

P310 Contacte imediatamente um CENTRO DE INFORMAÇÃO ANTIVENENOS/médico.

P321 Tratamento específico (ver no presente rótulo).

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

· **3.2 Caracterização química: Misturas**· **Descrição:** Mistura das seguintes substâncias com aditivos não perigosos.· **Substâncias perigosas:**

CAS: 27813-02-1 EINECS: 248-666-3	ácido metacrílico, monoéster com propano-1,2-diol ⚠ Skin Irrit. 2, H315; ⚠ Eye Irrit. 2, H319	50-100%
CAS: 818-61-1 EINECS: 212-454-9	acrilato de 2-hidroxietilo ⚠ Acute Tox. 3, H311; ⚠ Skin Corr. 1B, H314; ⚠ Aquatic Acute 1, H400; ⚠ Skin Sens. 1, H317	25-50%
CAS: 150-76-5 EINECS: 205-769-8	mequinol ⚠ Acute Tox. 4, H302; ⚠ Eye Irrit. 2, H319; ⚠ Skin Sens. 1, H317	2,5-10%

· **Avisos adicionais:** O texto das indicações de perigo aqui incluído poderá ser consultado no capítulo 16.

PT

(continuação na página 3)

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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.

Em caso de respiração irregular ou paragem da respiração, executar respiração artificial.

· **Em caso de inalação:**

Assegurar uma boa entrada de oxigénio e, por razões de segurança, procurar 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, e consultar o médico.

· **Em caso de ingestão:**

Consultar imediatamente o médico

Beber bastante água e respirar ar fresco. Consultar imediatamente um 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:**

Em caso de infiltrações nos leitos de água ou na canalização, comunicar aos serviços públicos competentes.

· **6.3 Métodos e materiais de confinamento e limpeza:**

Recolher com produtos que absorvam líquidos (areia, seixos, absorventes universais, serradura).

Aplicar um agente de neutralização.

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.

Para informações referentes à eliminação residual, ver o capítulo 13.

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SECÇÃO 7: Manuseamento e armazenagem

- **7.1 Precauções para um manuseamento seguro**
Assegurar uma boa ventilação / exaustão no local de trabalho.
Evitar a formação de aerossóis.
- **Precauções para prevenir incêndios e explosões:** Não são necessárias medidas especiais.
- **7.2 Condições de armazenagem segura, incluindo eventuais incompatibilidades**
- **Armazenagem:**
- **Requisitos para espaços ou contentores para armazenagem:** Sem requisitos especiais.
- **Avisos para armazenagem conjunta:** Não necessário.
- **Outros avisos sobre as condições de armazenagem:** Manter o recipiente hermeticamente fechado.
- **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:**

150-76-5 mequinol

VLE	Valor para exposição longa: 5 mg/m ³ irritação ocular; lesão cutânea
-----	--

- **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 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.

- **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. O facto de o produto ser composto por uma variedade de materiais leva a que não seja possível prever a duração dos mesmos e, conseqüentemente, das luvas, sendo assim necessário proceder a uma verificação antes da sua utilização.

- **Tempo de penetração no material das luvas**

Deve informar-se sobre a validade exacta das suas luvas junto do fabricante e respeitá-la.

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· **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**· **Aspecto:**

· Forma:	Líquido
· Cor:	Incolor
· Odor:	Perceptível
· Limiar olfactivo:	Não classificado.

· **valor pH:** Não classificado.· **Mudança do estado:**

· Ponto / intervalo de fusão:	Não classificado.
· Ponto / intervalo de ebulição:	> 246 °C

· **Ponto de inflamação:** > 93 °C· **Inflamabilidade (sólido, gás):** Não aplicável.· **Temperatura de ignição:**· **Temperatura de decomposição:** Não classificado.· **Auto-inflamabilidade:** O produto não é auto-inflamável.· **Perigos de explosão:** O produto não corre o risco de explosão.· **Limites de explosão:**

· Inferior:	Não classificado.
· Superior:	Não classificado.

· **Pressão de vapor:** Não classificado.· **Densidade:** Não classificado.· **Densidade relativa** Não classificado.· **Densidade de vapor** Não classificado.· **Velocidade de evaporação** Não classificado.· **Solubilidade em / miscibilidade com água:**

Pouco misturável.

· **Coefficiente de distribuição (n-octanol/água):** Não classificado.· **Viscosidade:**

· Dinâmico:	Não classificado.
· Cinémático:	Não classificado.

· **Percentagem de solvente:**

· Solventes orgânicos:	0.0 %
· VOC (UE)	0,00 %

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· 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 ou inalação.
Mortal em contacto com a pele.
- **Efeito de irritabilidade primário:**
- **Corrosão/irritação cutânea**
Provoca queimaduras na pele e lesões oculares graves.
- **Lesões oculares graves/irritação ocular**
Provoca queimaduras na pele e lesões oculares graves.
- **Sensibilização respiratória ou cutânea**
Pode provocar uma reacção alérgica cutânea.
- **Efeitos CMR (carcinogenicidade, mutagenicidade e efeitos tóxicos na reprodução)**
- **Mutagenicidade em células germinativas**
Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Carcinogenicidade** Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Toxicidade reprodutiva** Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **Toxicidade para órgãos-alvo específicos (STOT) - exposição única**
Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- **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.
- **Efeitos ecotóxicos:**
- **Observação:** Muito tóxico para os peixes.
- **Outras indicações ecológicas:**
- **Indicações gerais:**
Substâncias concentradas, ou seja não neutralizadas, não podem chegar aos esgotos nem às águas.
Tóxico nas águas para os peixes e para o plâncton.
muito tóxico para os organismos aquáticos

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- **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.

SECÇÃO 14: Informações relativas ao transporte

- | | |
|---|---|
| <ul style="list-style-type: none"> · 14.1 Número ONU · ADR, IMDG, IATA | <p align="center">UN2810</p> |
| <ul style="list-style-type: none"> · 14.2 Designação oficial de transporte da ONU · ADR · IMDG · IATA | <p>2810 LÍQUIDO ORGÂNICO, TÓXICO, N.S.A. (acrilato de 2-hidroxiétilo), PERIGOSO PARA O AMBIENTE
 TOXIC LIQUID, ORGANIC, N.O.S. (2-hydroxyethyl acrylate), MARINE POLLUTANT
 Toxic, liquids, organic, n.o.s. (2-hydroxyethyl acrylate)</p> |
| <ul style="list-style-type: none"> · 14.3 Classes de perigo para efeitos de transporte · ADR, IMDG | <p align="center">6.1 Matérias tóxicas
9</p> |
| <ul style="list-style-type: none"> · Classe · Rótulo | <p align="center">6.1 Matérias tóxicas
9</p> |
| <ul style="list-style-type: none"> · IATA | <p align="center">6.1 Matérias tóxicas
9</p> |
| <ul style="list-style-type: none"> · Class · Label | <p align="center">6.1 Matérias tóxicas
9</p> |
| <ul style="list-style-type: none"> · 14.4 Grupo de embalagem · ADR, IMDG, IATA | <p align="center">III</p> |
| <ul style="list-style-type: none"> · 14.5 Perigos para o ambiente: · Poluente das águas: · Marcação especial (ADR): | <p>O produto contém matérias perigosas para o ambiente:
 acrilato de 2-hidroxiétilo
 Símbolo convencional (peixes e árvore)
 Símbolo convencional (peixes e árvore)</p> |
| <ul style="list-style-type: none"> · 14.6 Precauções especiais para o utilizador · Nº Kemler: · Nº EMS: | <p>Atenção: Matérias tóxicas
 90
 F-A,S-A</p> |

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· <i>Stowage Category</i>	A
· <i>Stowage Code</i>	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	
· <i>Quantidades Limitadas (LQ)</i>	5L
· <i>Quantidades exceptuadas (EQ)</i>	Código: E1 Quantidade líquida máxima por embalagem interior: 30 ml Quantidade líquida máxima por embalagem exterior: 1000 ml
· <i>Categoria de transporte</i>	3
· <i>Código de restrição em túneis</i>	E
· IMDG	
· <i>Limited quantities (LQ)</i>	5L
· <i>Excepted quantities (EQ)</i>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 2810 LÍQUIDO ORGÂNICO, TÓXICO, N.S.A. (ACRILATO DE 2-HIDROXIETILO), 9, III, PERIGOSO PARA O AMBIENTE

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 Nenhum dos componentes se encontra listado.**
- **Categoria "Seveso"**
H2 TOXICIDADE AGUDA
E1 Perigoso para o ambiente aquático
- **Quantidades-limiar (em toneladas), para a aplicação de requisitos de nível inferior 50 t**
- **Quantidades-limiar (em toneladas), para a aplicação de requisitos de nível superior 200 t**
- **15.2 Avaliação da segurança química: Não foi realizada nenhuma Avaliação de Segurança Química.**

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.

- **Frases relevantes**
H302 Nocivo por ingestão.
H311 Tóxico em contacto com a pele.
H314 Provoca queimaduras na pele e lesões oculares graves.
H315 Provoca irritação cutânea.
H317 Pode provocar uma reacção alérgica cutânea.
H319 Provoca irritação ocular grave.
H400 Muito tóxico para os organismos aquáticos.

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· 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

ELINCS: European List of Notified Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity, Hazard Category 4

Acute Tox. 2: Acute toxicity, Hazard Category 2

Acute Tox. 3: Acute toxicity, Hazard Category 3

Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1

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SECCIÓN 1: Identificación de la sustancia o la mezcla y de la sociedad o la empresa

- **1.1 Identificador del producto**
- **Nombre comercial:** *LOWICRYL K4M MONOMER B*
- **Número del artículo:** *14330(B)*
- **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: info@emsdiasum.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**



GHS06 calavera y tibias cruzadas

Acute Tox. 2 H310 Mortal en contacto con la piel.



GHS05 corrosión

Skin Corr. 1B H314 Provoca quemaduras graves en la piel y lesiones oculares graves.



GHS09 medio ambiente

Aquatic Acute 1 H400 Muy tóxico para los organismos acuáticos.



GHS07

Acute Tox. 4 H302 Nocivo en caso de ingestión.

Acute Tox. 4 H332 Nocivo en caso de inhalación.

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Skin Sens. 1 H317 Puede provocar una reacción alérgica en la piel.

· 2.2 Elementos de la etiqueta

· Etiquetado con arreglo al Reglamento (CE) n° 1272/2008

El producto se ha clasificado y etiquetado de conformidad con el reglamento CLP.

· Pictogramas de peligro



GHS05 GHS06 GHS09

· Palabra de advertencia Peligro

· Componentes peligrosos a indicar en el etiquetaje:

acrilato de 2-hidroxiethyl

mequinol

· Indicaciones de peligro

H302+H332 Nocivo en caso de ingestión o inhalación.

H310 Mortal en contacto con la piel.

H314 Provoca quemaduras graves en la piel y lesiones oculares graves.

H317 Puede provocar una reacción alérgica en la piel.

H400 Muy tóxico para los organismos acuáticos.

· Consejos de prudencia

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.

P310 Llamar inmediatamente a un CENTRO DE TOXICOLOGÍA/médico.

P321 Se necesita un tratamiento específico (ver en esta etiqueta).

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

· 3.2 Caracterización química: Mezclas

· **Descripción:** Mezcla formada por las sustancias especificadas a continuación con adiciones no peligrosas.

· Componentes peligrosos:

CAS: 27813-02-1 EINECS: 248-666-3	ácido metacrílico, monoéster con propano-1,2-diol ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319	50-100%
CAS: 818-61-1 EINECS: 212-454-9	acrilato de 2-hidroxiethyl ⚠ Acute Tox. 3, H311; ⚠ Skin Corr. 1B, H314; ⚠ Aquatic Acute 1, H400; ⚠ Skin Sens. 1, H317	25-50%
CAS: 150-76-5 EINECS: 205-769-8	mequinol ⚠ Acute Tox. 4, H302; Eye Irrit. 2, H319; Skin Sens. 1, H317	2,5-10%

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· **Indicaciones adicionales:** El texto de los posibles riesgos aquí indicados se puede consultar en el capítulo 16.

SECCIÓN 4: Primeros auxilios

· **4.1 Descripción de los primeros auxilios**

· **Instrucciones generales:**

Quitarse 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.

En caso de respiración irregular o apnea (paro respiratorio), hágase la respiración artificial.

· **En caso de inhalación del producto:**

Suministrar suficiente aire fresco y, para mayor seguridad, consultar el médico.

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 y consultar un médico.

· **En caso de ingestión:**

Consultar inmediatamente un médico.

Beber mucha agua a respirar aire fresco. Solicitar asistencia médica inmediatamente.

· **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:**

Al penetrar en las aguas o en el alcantarillado, avisar a las autoridades pertinentes.

· **6.3 Métodos y material de contención y de limpieza:**

Quitar con material absorbente (arena, kieselgur, aglutinante de ácidos, aglutinante universal, aserrín).

Utilizar un neutralizador.

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.

Para mayor información sobre cómo desechar el producto, ver capítulo 13.

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SECCIÓN 7: Manipulación y almacenamiento

- **7.1 Precauciones para una manipulación segura**
Asegurar suficiente ventilación /aspiración en el puesto de trabajo.
Evitar la formación de aerosoles.
- **Prevención de incendios y explosiones:** No se requieren medidas especiales.
- **7.2 Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades**
- **Almacenamiento:**
- **Exigencias con respecto al almacén y los recipientes:** No se requieren medidas especiales.
- **Normas en caso de un almacenamiento conjunto:** No es necesario.
- **Indicaciones adicionales sobre las condiciones de almacenamiento:**
Mantener el recipiente cerrado herméticamente.
- **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:**

150-76-5 mequinol

LEP	Valor de larga duración: 5 mg/m ³
Sen	

- **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 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.

· **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. Teniendo en cuenta que el producto está fabricado a partir de diferentes materiales, su calidad no puede ser evaluada de antemano, de modo que los guantes deberán ser controlados antes de su utilización.

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· **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:** Perceptible

· **Umbral olfativo:** No determinado.

· **valor pH:** No determinado.

· **Cambio de estado**

Punto de fusión /campo de fusión: Indeterminado.

Punto de ebullición /campo de ebullición: > 246 °C

· **Punto de inflamación:** > 93 °C

· **Inflamabilidad (sólido, gaseiforme):** No aplicable.

· **Temperatura de ignición:**

Temperatura de descomposición: No determinado.

· **Autoinflamabilidad:** El producto no es autoinflamable.

· **Peligro de explosión:** El producto no es explosivo.

· **Límites de explosión:**

Inferior: No determinado.

Superior: No determinado.

· **Presión de vapor:** No determinado.

· **Densidad:** Indeterminado.

· **Densidad relativa** No determinado.

· **Densidad de vapor** No determinado.

· **Velocidad de evaporación** No determinado.

· **Solubilidad en / miscibilidad con agua:**

Poco o no mezclable.

· **Coefficiente de reparto (n-octanol/agua):** No determinado.

· **Viscosidad:**

Dinámica: No determinado.

Cinemática: No determinado.

· **Concentración del disolvente:**

Disolventes orgánicos: 0.0 %

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VOC (CE)	0,00 %
· 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 o inhalación.
Mortal en contacto con la piel.
- **Efecto estimulante primario:**
- **Corrosión o irritación cutáneas**
Provoca quemaduras graves en la piel y lesiones oculares graves.
- **Lesiones o irritación ocular graves**
Provoca quemaduras graves en la piel y lesiones oculares graves.
- **Sensibilización respiratoria o cutánea**
Puede provocar una reacción alérgica en la piel.
- **Efectos CMR (carcinogenicidad, mutagenicidad y toxicidad para la reproducción)**
- **Mutagenicidad en células germinales**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Carcinogenicidad** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **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**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **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.
- **Efectos ecotóxicos:**
- **Observación:** Muy tóxico para peces.
- **Indicaciones medioambientales adicionales:**
- **Indicaciones generales:**
En estado no diluido o no neutralizado, no verter en el alcantarillado o en otros sistemas de desagüe.
Vertido en aguas superficiales, también es tóxico para los peces y el plancton.

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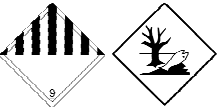
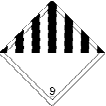
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- muy tóxico para organismos acuáticos*
- **12.5 Resultados de la valoración PBT y mPmB**
- **PBT:** No aplicable.
- **mPmB:** No aplicable.
- **12.6 Otros efectos adversos** No existen más datos relevantes disponibles.

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.

SECCIÓN 14: Información relativa al transporte

- **14.1 Número ONU**
- **ADR, IMDG, IATA** UN2810
- **14.2 Designación oficial de transporte de las Naciones Unidas**
- **ADR** 2810 LÍQUIDO TÓXICO, ORGÁNICO, N.E.P. (acrilato de 2-hidroxietilo), PELIGROSO PARA EL MEDIO AMBIENTE
- **IMDG** TOXIC LIQUID, ORGANIC, N.O.S. (2-hydroxyethyl acrylate), MARINE POLLUTANT
- **IATA** Toxic, liquids, organic, n.o.s. (2-hydroxyethyl acrylate)
- **14.3 Clase(s) de peligro para el transporte**
- **ADR, IMDG**
- 
- **Clase** 6.1 Materias tóxicas
- **Etiqueta** 9
- **IATA**
- 
- **Class** 6.1 Materias tóxicas
- **Label** 9
- **14.4 Grupo de embalaje**
- **ADR, IMDG, IATA** III
- **14.5 Peligros para el medio ambiente:**
- **Contaminante marino:** El producto contiene materias peligrosas para el medio ambiente: acrilato de 2-hidroxietilo
- **Marcado especial (ADR):** Símbolo (pez y árbol)
- **Marcado especial (ADR):** Símbolo (pez y árbol)
- **14.6 Precauciones particulares para los usuarios** Atención: Materias tóxicas

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· Número Kemler:	90
· Número EMS:	F-A,S-A
· Stowage Category	A
· 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)	5L
· Cantidades exceptuadas (EQ)	Código: E1 Cantidad neta máxima por envase interior: 30 ml Cantidad neta máxima por embalaje exterior: 1000 ml
· Categoría de transporte	3
· Código de restricción del túnel	E
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· "Reglamentación Modelo" de la UNECE:	UN 2810 LÍQUIDO TÓXICO, ORGÁNICO, N.E.P. (ACRILATO DE 2-HIDROXIETILO), 9, III, PELIGROSO PARA EL MEDIO AMBIENTE

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** ninguno de los componentes está incluido en una lista
- **Categoría Seveso**
H2 TOXICIDAD AGUDA
E1 Peligroso para el medio ambiente acuático
- **Cantidad umbral (toneladas) a efectos de aplicación de los requisitos de nivel inferior 50 t**
- **Cantidad umbral (toneladas) a efectos de aplicación de los requisitos de nivel superior 200 t**
- **15.2 Evaluación de la seguridad química:** Una evaluación de la seguridad química no se ha llevado a cabo.

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.

- **Frases relevantes**
H302 Nocivo en caso de ingestión.
H311 Tóxico en contacto con la piel.
H314 Provoca quemaduras graves en la piel y lesiones oculares graves.
H315 Provoca irritación cutánea.
H317 Puede provocar una reacción alérgica en la piel.
H319 Provoca irritación ocular grave.
H400 Muy tóxico para los organismos acuáticos.

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· 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

ELINCS: European List of Notified Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity, Hazard Category 4

Acute Tox. 2: Acute toxicity, Hazard Category 2

Acute Tox. 3: Acute toxicity, Hazard Category 3

Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1

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