

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/18/2015

Reviewed on 07/18/2015

## 1 Identification

- **Product identifier**
- **Trade name:** UNICRYL EMBEDDING KIT
- **Article number:** 14660
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.

Repr. 2 H361 Suspected of damaging fertility or the unborn child.

STOT RE 1 H372 Causes damage to the hearing organs through prolonged or repeated exposure.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

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

STOT SE 3 H335 May cause respiratory irritation.

- **Label elements**

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

- **Hazard pictograms**



GHS02



GHS07



GHS08

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**Trade name: UNICRYL EMBEDDING KIT**

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· **Signal word** *Danger*

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

*methyl methacrylate*  
**STYRENE**

· **Hazard statements**

*Highly flammable liquid and vapor.*  
*Causes skin irritation.*  
*May cause an allergic skin reaction.*  
*Suspected of causing cancer.*  
*Suspected of damaging fertility or the unborn child.*  
*May cause respiratory irritation.*  
*Causes damage to the hearing organs through prolonged or repeated exposure.*

· **Precautionary statements**

*Keep away from heat/sparks/open flames/hot surfaces. - No smoking.*  
*Use explosion-proof electrical/ventilating/lighting/equipment.*  
*Do not breathe dust/fume/gas/mist/vapors/spray.*  
*Wear protective gloves / eye protection / face protection.*  
*Wear protective gloves.*  
*Ground/bond container and receiving equipment.*  
*Use only non-sparking tools.*  
*Take precautionary measures against static discharge.*  
*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.*  
*Obtain special instructions before use.*  
*Do not handle until all safety precautions have been read and understood.*  
*IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.*  
*Specific treatment (see on this label).*  
*IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.*  
*Call a poison center/doctor if you feel unwell.*  
*Wash contaminated clothing before reuse.*  
*IF exposed or concerned: Get medical advice/attention.*  
*If skin irritation or rash occurs: Get medical advice/attention.*  
*Get medical advice/attention if you feel unwell.*  
*In case of fire: Use for extinction: CO2, powder or water spray.*  
*Take off contaminated clothing and wash it before reuse.*  
*Store locked up.*  
*Store in a well-ventilated place. Keep container tightly closed.*  
*Store in a well-ventilated place. Keep cool.*  
*Dispose of contents/container in accordance with local/regional/national/international regulations.*

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



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- **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:**

80-62-6	methyl methacrylate	50-100%
100-42-5	STYRENE	2.5-10%

### 4 First-aid measures

- **Description of first aid measures**
- **General information:**  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **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.
- **After swallowing:** If symptoms persist consult 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:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents

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

## 8 Exposure controls/personal protection

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

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

### 80-62-6 methyl methacrylate

PEL	Long-term value: 410 mg/m <sup>3</sup> , 100 ppm
REL	Long-term value: 410 mg/m <sup>3</sup> , 100 ppm
TLV	Short-term value: 410 mg/m <sup>3</sup> , 100 ppm Long-term value: 205 mg/m <sup>3</sup> , 50 ppm (SEN) NIC-DSEN

### 100-42-5 STYRENE

PEL	Long-term value: 100 ppm Ceiling limit value: 200; 600* ppm *5-min peak in any 3 hrs
REL	Short-term value: 425 mg/m <sup>3</sup> , 100 ppm Long-term value: 215 mg/m <sup>3</sup> , 50 ppm
TLV	Short-term value: 170 mg/m <sup>3</sup> , 40 ppm Long-term value: 85 mg/m <sup>3</sup> , 20 ppm BEI

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**· Ingredients with biological limit values:**

**100-42-5 STYRENE**

<b>BEI</b>	400 mg/g creatinine Medium: urine Time: end of shift Parameter: Mandelic acid plus phenylglyoxylic acid (nonspecific)
	0.2 mg/L Medium: venous blood Time: end of shift Parameter: Styrene (semi-quantitative)

**· 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 skin.
- 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.

**· Eye protection:**



Tightly sealed goggles

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## 9 Physical and chemical properties

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

- **General Information**

- **Appearance:**

Form:	Liquid
Color:	Yellow
Odor:	Pungent
Odour threshold:	Not determined.

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

- **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	101 °C (214 °F)

- **Flash point:** 10 °C (50 °F)

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

- **Ignition temperature:** 430 °C (806 °F)

- **Decomposition temperature:** Not determined.

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

- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

- **Explosion limits:**

Lower:	2.1 Vol %
Upper:	12.5 Vol %

- **Vapor pressure at 20 °C (68 °F):** 47 hPa (35 mm Hg)

- **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:** 4.0 %

- **VOC content:** 4.0 %

40.0 g/l / 0.33 lb/gl

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

## 10 Stability and reactivity

- **Reactivity**

- **Chemical stability**

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

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- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

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

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

### 80-62-6 methyl methacrylate

Oral	LD50	7872 mg/kg (rat)
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### 100-42-5 STYRENE

Oral	LD50	5000 mg/kg (rat)
Inhalative	LC50/4 h	24 mg/l (rat)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** No irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:  
Irritant

- **Carcinogenic categories**

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

80-62-6	methyl methacrylate	3
100-42-5	STYRENE	2B

- **NTP (National Toxicology Program)**

100-42-5	STYRENE	R
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- **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.
- **Additional ecological information:**

- **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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· **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"> <li>· <b>UN-Number</b></li> <li>· <b>DOT, ADR, IMDG, IATA</b></li> </ul>	UN1993
<ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>DOT</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG, IATA</b></li> </ul>	Flammable liquids, n.o.s. (Methyl methacrylate monomer, stabilized) 1993 Flammable liquids, n.o.s. (Methyl methacrylate monomer, stabilized) FLAMMABLE LIQUID, N.O.S. (METHYL METHACRYLATE MONOMER, STABILIZED)
<ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>DOT</b></li> </ul>	<div style="text-align: center;">  </div>
<ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	3 Flammable liquids 3
<ul style="list-style-type: none"> <li>· <b>ADR, IMDG, IATA</b></li> </ul>	<div style="text-align: center;">  </div>
<ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	3 Flammable liquids 3
<ul style="list-style-type: none"> <li>· <b>Packing group</b></li> <li>· <b>DOT, ADR, IMDG, IATA</b></li> </ul>	II
<ul style="list-style-type: none"> <li>· <b>Environmental hazards:</b></li> <li>· <b>Marine pollutant:</b></li> </ul>	No
<ul style="list-style-type: none"> <li>· <b>Special precautions for user</b></li> <li>· <b>Danger code (Kemler):</b></li> <li>· <b>EMS Number:</b></li> </ul>	Warning: Flammable liquids 33 F-E, <u>S</u> -E
<ul style="list-style-type: none"> <li>· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b></li> </ul>	Not applicable.

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· **Transport/Additional information:**

· **DOT**

· **Quantity limitations**

On passenger aircraft/rail: 5 L

On cargo aircraft only: 60 L

· **ADR**

· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **IMDG**

· **Limited quantities (LQ)**

1L

· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **UN "Model Regulation":**

UN1993, Flammable liquids, n.o.s. (Methyl methacrylate monomer, stabilized), 3, II

## 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):**

All ingredients are 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.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

80-62-6 methyl methacrylate

E, NL

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

80-62-6 methyl methacrylate

A4

100-42-5 STYRENE

A4

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

None of the ingredients is listed.

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**Trade name: UNICRYL EMBEDDING KIT**

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

· **Hazard pictograms**



GHS02    GHS07    GHS08

· **Signal word** *Danger*

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

*methyl methacrylate*

*STYRENE*

· **Hazard statements**

*Highly flammable liquid and vapor.*

*Causes skin irritation.*

*May cause an allergic skin reaction.*

*Suspected of causing cancer.*

*Suspected of damaging fertility or the unborn child.*

*May cause respiratory irritation.*

*Causes damage to the hearing organs through prolonged or repeated exposure.*

· **Precautionary statements**

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

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

*Do not breathe dust/fume/gas/mist/vapors/spray.*

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

*Wear protective gloves.*

*Ground/bond container and receiving equipment.*

*Use only non-sparking tools.*

*Take precautionary measures against static discharge.*

*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.*

*Obtain special instructions before use.*

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

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

*Specific treatment (see on this label).*

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

*Call a poison center/doctor if you feel unwell.*

*Wash contaminated clothing before reuse.*

*IF exposed or concerned: Get medical advice/attention.*

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

*Get medical advice/attention if you feel unwell.*

*In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.*

*Take off contaminated clothing and wash it before reuse.*

*Store locked up.*

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

*Store in a well-ventilated place. Keep cool.*

*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: UNICRYL EMBEDDING KIT**

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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** 07/18/2015 / -

· **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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 2: Flammable liquids, Hazard Category 2

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

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

Carc. 2: Carcinogenicity, Hazard Category 2

Repr. 2: Reproductive toxicity, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1

US

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

Printing date 18.07.2015

Revision: 18.07.2015

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

- **Product identifier**
- **Trade name:** UNICRYL EMBEDDING KIT
- **Article number:** 14660
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: [sgkcck@aol.com](mailto:sgkcck@aol.com)  
[www.emsdiasum.com](http://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](http://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**



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



GHS08 health hazard

Carc. 2 H351 Suspected of causing cancer.

Repr. 2 H361 Suspected of damaging fertility or the unborn child.

STOT RE 1 H372 Causes damage to the hearing organs through prolonged or repeated exposure.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

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AU

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

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

*STOT SE 3 H335 May cause respiratory irritation.*

· **Label elements**

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

· **Hazard pictograms**



GHS02    GHS07    GHS08

· **Signal word** *Danger*

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

*methyl methacrylate*

*STYRENE*

· **Hazard statements**

*Highly flammable liquid and vapour.*

*Causes skin irritation.*

*May cause an allergic skin reaction.*

*Suspected of causing cancer.*

*Suspected of damaging fertility or the unborn child.*

*May cause respiratory irritation.*

*Causes damage to the hearing organs through prolonged or repeated exposure.*

· **Precautionary statements**

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

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

*Do not breathe dust/fume/gas/mist/vapours/spray.*

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

*Wear protective gloves.*

*Ground/bond container and receiving equipment.*

*Use only non-sparking tools.*

*Take precautionary measures against static discharge.*

*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.*

*Obtain special instructions before use.*

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

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

*Specific treatment (see on this label).*

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

*Call a POISON CENTER/doctor if you feel unwell.*

*Wash contaminated clothing before reuse.*

*IF exposed or concerned: Get medical advice/attention.*

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

*Get medical advice/attention if you feel unwell.*

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

*Take off contaminated clothing and wash it before reuse.*

*Store locked up.*

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

*Store in a well-ventilated place. Keep cool.*

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

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# Safety data sheet

## according to 1907/2006/EC, Article 31

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- **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:**

80-62-6	methyl methacrylate	50-100%
100-42-5	STYRENE	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:**  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **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.
- **After swallowing:** If symptoms persist consult 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 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents

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

### 8 Exposure controls/personal protection

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

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

**80-62-6 methyl methacrylate**

NES	Short-term value: 416 mg/m <sup>3</sup> , 100 ppm Long-term value: 208 mg/m <sup>3</sup> , 50 ppm
-----	--

**100-42-5 STYRENE**

NES	Short-term value: 426 mg/m <sup>3</sup> , 100 ppm Long-term value: 213 mg/m <sup>3</sup> , 50 ppm
-----	--

- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Store protective clothing separately.  
Avoid contact with the skin.  
Avoid contact with the eyes and skin.

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· **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

## 9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

<b>Form:</b>	Liquid
<b>Colour:</b>	Yellow
<b>Odour:</b>	Pungent
<b>Odour threshold:</b>	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	101 °C

· **Flash point:** 10 °C

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

· **Ignition temperature:** 430 °C

· **Decomposition temperature:** Not determined.

· **Self-igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· **Explosion limits:**

<b>Lower:</b>	2.1 Vol %
---------------	-----------

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<b>Upper:</b>	12.5 Vol %
· <b>Vapour pressure at 20 °C:</b>	47 hPa
· <b>Density:</b>	Not determined.
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with water:</b>	Not miscible or difficult to mix.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	4.0 %
<b>VOC (EC)</b>	4.00 %
· <b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

- **Reactivity**
- **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**

· <b>LD/LC50 values relevant for classification:</b>		
<b>80-62-6 methyl methacrylate</b>		
Oral	LD50	7872 mg/kg (rat)
<b>100-42-5 STYRENE</b>		
Oral	LD50	5000 mg/kg (rat)
Inhalative	LC50/4 h	24 mg/l (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Irritant to skin and mucous membranes.
- **Serious eye damage/irritation** No irritating 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:

Irritant

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- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**  
Carc. 2, Repr. 2


## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

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

## 14 Transport information

- |                                     |   |
|-------------------------------------|---|
| · <b>UN-Number</b>                  |   |
| · <b>ADG, IMDG, IATA</b>            | UN1993  |
| · <b>UN proper shipping name</b>    |   |
| · <b>ADG</b>                        | 1993 FLAMMABLE LIQUID, N.O.S. (METHYL METHACRYLATE MONOMER, STABILIZED)             |
| · <b>IMDG, IATA</b>                 | FLAMMABLE LIQUID, N.O.S. (METHYL METHACRYLATE MONOMER, STABILIZED)                  |
| · <b>Transport hazard class(es)</b> |   |
| · <b>ADG, IMDG, IATA</b>            |   |
|                                     |  |
| · <b>Class</b>                      | 3 Flammable liquids.  |
| · <b>Label</b>                      | 3   |
| · <b>Packing group</b>              |   |
| · <b>ADG, IMDG, IATA</b>            | II  |

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· <b>Environmental hazards:</b>	
· <b>Marine pollutant:</b>	No
· <b>Special precautions for user</b>	Warning: Flammable liquids.
· <b>Danger code (Kemler):</b>	33
· <b>EMS Number:</b>	F-E, <u>S-E</u>
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
-----	
· <b>ADG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>Transport category</b>	2
· <b>Tunnel restriction code</b>	D/E
-----	
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>UN "Model Regulation":</b>	UN1993, FLAMMABLE LIQUID, N.O.S. (METHYL METHACRYLATE MONOMER, STABILIZED), 3, II

### 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**

80-62-6	methyl methacrylate	S6, S10
100-42-5	STYRENE	S5

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

· **Hazard pictograms**



GHS02    GHS07    GHS08

· **Signal word** Danger

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

methyl methacrylate

STYRENE

· **Hazard statements**

Highly flammable liquid and vapour.

Causes skin irritation.

May cause an allergic skin reaction.

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AU

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- Suspected of causing cancer.*  
*Suspected of damaging fertility or the unborn child.*  
*May cause respiratory irritation.*  
*Causes damage to the hearing organs through prolonged or repeated exposure.*
- **Precautionary statements**  
*Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.*  
*Use explosion-proof electrical/ventilating/lighting/equipment.*  
*Do not breathe dust/fume/gas/mist/vapours/spray.*  
*Wear protective gloves / eye protection / face protection.*  
*Wear protective gloves.*  
*Ground/bond container and receiving equipment.*  
*Use only non-sparking tools.*  
*Take precautionary measures against static discharge.*  
*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.*  
*Obtain special instructions before use.*  
*Do not handle until all safety precautions have been read and understood.*  
*IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.*  
*Specific treatment (see on this label).*  
*IF INHALED: Remove person to fresh air and keep comfortable for breathing.*  
*Call a POISON CENTER/doctor if you feel unwell.*  
*Wash contaminated clothing before reuse.*  
*IF exposed or concerned: Get medical advice/attention.*  
*If skin irritation or rash occurs: Get medical advice/attention.*  
*Get medical advice/attention if you feel unwell.*  
*In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.*  
*Take off contaminated clothing and wash it before reuse.*  
*Store locked up.*  
*Store in a well-ventilated place. Keep container tightly closed.*  
*Store in a well-ventilated place. Keep cool.*  
*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.  
 · **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)*  
*LC50: Lethal concentration, 50 percent*  
*LD50: Lethal dose, 50 percent*  
*Flam. Liq. 2: Flammable liquids, Hazard Category 2*  
*Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2*  
*Skin Sens. 1: Sensitisation - Skin, Hazard Category 1*  
*Carc. 2: Carcinogenicity, Hazard Category 2*

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**Trade name: UNICRYL EMBEDDING KIT***Repr. 2: Reproductive toxicity, Hazard Category 2**STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3**STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1*

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AU

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/18/2015

Reviewed on 07/18/2015

## 1 Identification

- **Product identifier**
- **Trade name:** UNICRYL EMBEDDING KIT
- **Article number:** 14660
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.

Repr. 2 H361 Suspected of damaging fertility or the unborn child.

STOT RE 1 H372 Causes damage to the hearing organs through prolonged or repeated exposure.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

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

STOT SE 3 H335 May cause respiratory irritation.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

Not applicable.



Toxic

May cause harm to the unborn child.



Harmful

Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed. Possible risk of impaired fertility.



Irritant

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**Trade name: UNICRYL EMBEDDING KIT**

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*Irritating to respiratory system and skin. May cause sensitisation by skin contact.*



**Highly flammable**

*Highly flammable.*

· **Information concerning particular hazards for human and environment:**

*The product has to be labeled due to the calculation procedure of international guidelines.*

· **Classification system:**

*The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.*

· **Label elements**

· **Labelling according to EU guidelines:**

*The product has been classified and marked in accordance with directives on hazardous materials.*

· **Code letter and hazard designation of product:**



**Toxic**

**Highly flammable**

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

*methyl methacrylate*

· **Risk phrases:**

*May cause harm to the unborn child.*

*Highly flammable.*

*Irritating to respiratory system and skin.*

*May cause sensitisation by skin contact.*

*Also harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.*

*Possible risk of impaired fertility.*

· **Safety phrases:**

*Avoid exposure - obtain special instructions before use.*

*Avoid contact with skin.*

*Wear suitable gloves and eyeface protection.*

*In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).*

*This material and its container must be disposed of as hazardous waste.*

· **Hazard description:**

· **WHMIS-symbols:**

*B2 - Flammable liquid*

*D2A - Very toxic material causing other toxic effects*



· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



*Health = 2*

*Fire = 3*

*Reactivity = 0*

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

HEALTH	2	Health = *2
FIRE	3	Fire = 3
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:**

80-62-6	methyl methacrylate	60-100%
100-42-5	STYRENE	1-5%

### 4 First-aid measures

- **Description of first aid measures**
- **General information:**  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **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.
- **After swallowing:** If symptoms persist consult 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:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

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- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

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

## 8 Exposure controls/personal protection

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

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

### 80-62-6 methyl methacrylate

EL Short-term value: 100 ppm  
Long-term value: 50 ppm  
S

EV Short-term value: 100 ppm  
Long-term value: 50 ppm

### 100-42-5 STYRENE

EL Short-term value: 75 ppm  
Long-term value: 50 ppm  
IARC 2B

EV Short-term value: 100 ppm  
Long-term value: 35 ppm

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· **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 skin.

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.

· **Eye protection:**



Tightly sealed goggles

## 9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form: Liquid

Color: Yellow

· **Odor:** Pungent

· **Odour threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: 101 °C

· **Flash point:** 10 °C

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# Safety Data Sheet

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· <b>Flammability (solid, gaseous):</b>	Not flammable.
· <b>Ignition temperature:</b>	430 °C
· <b>Decomposition temperature:</b>	Not determined.
· <b>Auto igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· <b>Explosion limits:</b>	
<b>Lower:</b>	2.1 Vol %
<b>Upper:</b>	12.5 Vol %
· <b>Vapor pressure at 20 °C:</b>	47 hPa
· <b>Density:</b>	Not determined.
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Not miscible or difficult to mix.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	4.0 %
· <b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

- **Reactivity**
- **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:**

· <b>LD/LC50 values that are relevant for classification:</b>		
<b>80-62-6 methyl methacrylate</b>		
Oral	LD50	7872 mg/kg (rat)
<b>100-42-5 STYRENE</b>		
Oral	LD50	5000 mg/kg (rat)
Inhalative	LC50/4 h	24 mg/l (rat)

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CA

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/18/2015

Reviewed on 07/18/2015

Trade name: UNICRYL EMBEDDING KIT

(Contd. of page 6)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** No irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Irritant
- **Carcinogenic categories**

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

80-62-6	methyl methacrylate	3
100-42-5	STYRENE	2B

- **NTP (National Toxicology Program)**

100-42-5	STYRENE	R
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- **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.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **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

- **UN-Number**
- **DOT, TDG, IMDG, IATA** UN1993

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# Safety Data Sheet

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Reviewed on 07/18/2015

Trade name: UNICRYL EMBEDDING KIT

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· **UN proper shipping name**  
 · **DOT**  
 · **TDG**  
 · **IMDG, IATA**

*Flammable liquids, n.o.s. (Methyl methacrylate monomer, stabilized)*  
*1993 Flammable liquids, n.o.s. (Methyl methacrylate monomer, stabilized)*  
**FLAMMABLE LIQUID, N.O.S. (METHYL METHACRYLATE MONOMER, STABILIZED)**

· **Transport hazard class(es)**· **DOT**

· **Class**  
 · **Label**  
 · **TDG, IMDG, IATA**

*3 Flammable liquids*  
**3**



· **Class**  
 · **Label**

*3 Flammable liquids*  
**3**

· **Packing group**· **DOT, TDG, IMDG, IATA** **II**· **Environmental hazards:**· **Marine pollutant:** **No**· **Special precautions for user***Warning: Flammable liquids*· **Danger code (Kemler):****33**· **EMS Number:****F-E,S-E**· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code****Not applicable.**· **Transport/Additional information:**· **DOT**· **Quantity limitations**

*On passenger aircraft/rail: 5 L*  
*On cargo aircraft only: 60 L*

· **TDG**· **Excepted quantities (EQ)**

**Code: E2**  
*Maximum net quantity per inner packaging: 30 ml*  
*Maximum net quantity per outer packaging: 500 ml*

· **IMDG**· **Limited quantities (LQ)****1L**· **Excepted quantities (EQ)**

**Code: E2**  
*Maximum net quantity per inner packaging: 30 ml*  
*Maximum net quantity per outer packaging: 500 ml*

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Trade name: UNICRYL EMBEDDING KIT

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· **UN "Model Regulation":** UN1993, Flammable liquids, n.o.s. (Methyl methacrylate monomer, stabilized), 3, II

## 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):**

All ingredients are 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.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

80-62-6	methyl methacrylate	E, NL
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· **TLV (Threshold Limit Value established by ACGIH)**

80-62-6	methyl methacrylate	A4
100-42-5	STYRENE	A4

· **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%)**

100-42-5	STYRENE	
----------	---------	--

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

80-62-6	methyl methacrylate	
---------	---------------------	--

· **Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.

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Reviewed on 07/18/2015

**Trade name: UNICRYL EMBEDDING KIT**

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· **Hazard symbols:**



Toxic  
Highly flammable

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

methyl methacrylate

· **Risk phrases:**

May cause harm to the unborn child.

Highly flammable.

Irritating to respiratory system and skin.

May cause sensitisation by skin contact.

Also harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.

Possible risk of impaired fertility.

· **Safety phrases:**

Avoid exposure - obtain special instructions before use.

Avoid contact with skin.

Wear suitable gloves and eyeface protection.

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

This material and its container must be disposed of as hazardous waste.

· **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** 07/18/2015 / -

· **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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 2: Flammable liquids, Hazard Category 2

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

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

Carc. 2: Carcinogenicity, Hazard Category 2

Repr. 2: Reproductive toxicity, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1

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

Printing date 18.07.2015

Revision: 18.07.2015

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

- **Product identifier**
- **Trade name:** UNICRYL EMBEDDING KIT
- **Article number:** 14660
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Further information obtainable from:** Product safety department
- **Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## 2 Hazards identification

- **Classification of the substance or mixture**



flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



health hazard

Repr. 2 H361 Suspected of damaging fertility or the unborn child.

STOT RE 2 H373 May cause damage to the hearing organs through prolonged or repeated exposure.



Skin Irrit. 2 H315 Causes skin irritation.

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

STOT SE 3 H335 May cause respiratory irritation.

Acute Tox. 5 H333 May be harmful if inhaled.

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



GHS02



GHS07



GHS08

(Contd. on page 2)



# Safety data sheet

according to 1907/2006/EC, Article 31

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Trade name: UNICRYL EMBEDDING KIT

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- **Signal word** *Danger*
- **Hazard-determining components of labelling:**  
methyl methacrylate  
STYRENE
- **Hazard statements**  
Highly flammable liquid and vapour.  
May be harmful if inhaled.  
Causes skin irritation.  
May cause an allergic skin reaction.  
Suspected of damaging fertility or the unborn child.  
May cause respiratory irritation.  
May cause damage to the hearing organs through prolonged or repeated exposure.
- **Precautionary statements**  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Use explosion-proof electrical/ventilating/lighting/equipment.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
Specific treatment (see on this label).  
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.*

· <b>Dangerous components:</b>		
80-62-6	methyl methacrylate ⚠ Flam. Liq. 2, H225; ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	50-100%
100-42-5	STYRENE ⚠ Flam. Liq. 3, H226; ⚠ Repr. 2, H361; STOT RE 1, H372; ⚠ Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319	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:**  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **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.*
- **After swallowing:** *If symptoms persist consult doctor.*
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** *No further relevant information available.*

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**Safety data sheet**  
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**Trade name: UNICRYL EMBEDDING KIT**

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- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

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

### 7 Handling and storage

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

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Trade name: UNICRYL EMBEDDING KIT

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## 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:**  
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.
- **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 skin.  
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

## 9 Physical and chemical properties

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

<b>Form:</b>	Liquid
<b>Colour:</b>	Yellow
<b>Odour:</b>	Pungent

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· <b>Odour threshold:</b>	Not determined.
· <b>pH-value:</b>	Not determined.
· <b>Change in condition</b>	
<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	101 °C
· <b>Flash point:</b>	10 °C
· <b>Flammability (solid, gaseous):</b>	Not applicable.
· <b>Ignition temperature:</b>	430 °C
· <b>Decomposition temperature:</b>	Not determined.
· <b>Self-igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· <b>Explosion limits:</b>	
<b>Lower:</b>	2,1 Vol %
<b>Upper:</b>	12,5 Vol %
· <b>Vapour pressure at 20 °C:</b>	47 hPa
· <b>Density:</b>	Not determined.
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with water:</b>	Not miscible or difficult to mix.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	4,0 %
<b>VOC (EC)</b>	4,00 %
· <b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

- **Reactivity**
- **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.

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Trade name: UNICRYL EMBEDDING KIT

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### 11 Toxicological information

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

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

**80-62-6 methyl methacrylate**

Oral	LD50	7872 mg/kg (rat)
------	------	------------------

**100-42-5 STYRENE**

Oral	LD50	5000 mg/kg (rat)
------	------	------------------

Inhalative	LC50/4 h	24 mg/l (rat)
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- **Primary irritant effect:**
- **Skin corrosion/irritation** Irritant to skin and mucous membranes.
- **Serious eye damage/irritation** No irritating 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:  
Irritant
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**  
Repr. 2

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

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

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**Safety data sheet**  
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Trade name: UNICRYL EMBEDDING KIT

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**14 Transport information**

· UN-Number · ADR, IMDG, IATA	UN1993
· UN proper shipping name · ADR · IMDG, IATA	1993 FLAMMABLE LIQUID, N.O.S. (METHYL METHACRYLATE MONOMER, STABILIZED) FLAMMABLE LIQUID, N.O.S. (METHYL METHACRYLATE MONOMER, STABILIZED)
· Transport hazard class(es) · ADR, IMDG, IATA	
· Class · Label	3 Flammable liquids. 3
· Packing group · ADR, IMDG, IATA	II
· Environmental hazards: · Marine pollutant:	No
· Special precautions for user · Danger code (Kemler): · EMS Number:	Warning: Flammable liquids. 33 F-E,S-E
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR · Limited quantities (LQ) · Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· Transport category · Tunnel restriction code	2 D/E
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN1993, FLAMMABLE LIQUID, N.O.S. (METHYL METHACRYLATE MONOMER, STABILIZED), 3, II

**15 Regulatory information**

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

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**Safety data sheet**  
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**Trade name: UNICRYL EMBEDDING KIT**

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**· Hazard pictograms**

GHS02   GHS07   GHS08

**· Signal word** *Danger***· Hazard-determining components of labelling:**

*methyl methacrylate*  
**STYRENE**

**· Hazard statements***Highly flammable liquid and vapour.**May be harmful if inhaled.**Causes skin irritation.**May cause an allergic skin reaction.**Suspected of damaging fertility or the unborn child.**May cause respiratory irritation.**May cause damage to the hearing organs through prolonged or repeated exposure.***· Precautionary statements***Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.**Use explosion-proof electrical/ventilating/lighting/equipment.**IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.**Specific treatment (see on this label).**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.***· 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.*

**· Relevant phrases***H225 Highly flammable liquid and vapour.**H226 Flammable liquid and vapour.**H315 Causes skin irritation.**H317 May cause an allergic skin reaction.**H319 Causes serious eye irritation.**H332 Harmful if inhaled.**H335 May cause respiratory irritation.**H361 Suspected of damaging fertility or the unborn child.**H372 Causes damage to the hearing organs through prolonged or repeated exposure.***· 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)**LC50: Lethal concentration, 50 percent*

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*LD50: Lethal dose, 50 percent**Flam. Liq. 2: Flammable liquids, Hazard Category 2**Flam. Liq. 3: Flammable liquids, Hazard Category 3**Acute Tox. 4: Acute toxicity, Hazard Category 4**Acute Tox. 5: Acute toxicity, Hazard Category 5**Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2**Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A**Skin Sens. 1: Sensitisation - Skin, Hazard Category 1**Repr. 2: Reproductive toxicity, Hazard Category 2**STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3**STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1**STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2*

IL



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

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Revision: 18.07.2015

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

- **1.1 Product identifier**
- **Trade name:** UNICRYL EMBEDDING KIT
- **Article number:** 14660
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Further information obtainable from:** Product safety department
- **1.4 Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### SECTION 2: Hazards identification

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



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



GHS08 health hazard

Repr. 2 H361d Suspected of damaging the unborn child.

STOT RE 2 H373 May cause damage to the hearing organs through prolonged or repeated exposure.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

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

STOT SE 3 H335 May cause respiratory irritation.

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



GHS02



GHS07



GHS08

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# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 18.07.2015

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**Trade name: UNICRYL EMBEDDING KIT**

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· **Signal word** *Danger*· **Hazard-determining components of labelling:**

*methyl methacrylate*  
**STYRENE**

· **Hazard statements**H225 *Highly flammable liquid and vapour.*H315 *Causes skin irritation.*H317 *May cause an allergic skin reaction.*H361d *Suspected of damaging the unborn child.*H335 *May cause respiratory irritation.*H373 *May cause damage to the hearing organs through prolonged or repeated exposure.*· **Precautionary statements**P210 *Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.*P241 *Use explosion-proof electrical/ventilating/lighting/equipment.*P303+P361+P353 *IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.*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: 80-62-6 EINECS: 201-297-1	<i>methyl methacrylate</i> 	50-100%
CAS: 100-42-5 EINECS: 202-851-5	<b>STYRENE</b> 	2.5-10%

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

### SECTION 4: First aid measures

· **4.1 Description of first aid measures**· **General information:**

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

· **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.*· **After swallowing:** *If symptoms persist consult doctor.*

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- **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:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

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

### SECTION 7: Handling and storage

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

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## 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:**

#### 80-62-6 methyl methacrylate

WEL	Short-term value: 416 mg/m <sup>3</sup> , 100 ppm
	Long-term value: 208 mg/m <sup>3</sup> , 50 ppm

#### 100-42-5 STYRENE

WEL	Short-term value: 1080 mg/m <sup>3</sup> , 250 ppm
	Long-term value: 430 mg/m <sup>3</sup> , 100 ppm

· **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 skin.

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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### SECTION 9: Physical and chemical properties

#### · 9.1 Information on basic physical and chemical properties

##### · General Information

##### · Appearance:

Form:	Liquid
Colour:	Yellow
Odour:	Pungent
Odour threshold:	Not determined.

· pH-value: Not determined.

##### · Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	101 °C

· Flash point: 10 °C

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature: 430 °C

· Decomposition temperature: Not determined.

· Self-igniting: Product is not selfigniting.

· Danger of explosion: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

##### · Explosion limits:

Lower:	2.1 Vol %
Upper:	12.5 Vol %

· Vapour pressure at 20 °C: 47 hPa

· 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:	4.0 %
VOC (EC)	4.00 %

· 9.2 Other information: No further relevant information available.

### SECTION 10: Stability and reactivity

#### · 10.1 Reactivity

#### · 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.

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- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

### SECTION 11: Toxicological information

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

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

#### 80-62-6 methyl methacrylate

Oral	LD50	7872 mg/kg (rat)
------	------	------------------

#### 100-42-5 STYRENE

Oral	LD50	5000 mg/kg (rat)
------	------	------------------

Inhalative	LC50/4 h	24 mg/l (rat)
------------	----------	---------------

- **Primary irritant effect:**
- **Skin corrosion/irritation** Irritant to skin and mucous membranes.
- **Serious eye damage/irritation** No irritating 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:  
Irritant
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**  
Repr. 2

### 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.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **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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- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

### SECTION 14: Transport information

· <b>14.1 UN-Number</b> · <b>ADR, IMDG, IATA</b>	UN1993
· <b>14.2 UN proper shipping name</b> · <b>ADR</b>  · <b>IMDG, IATA</b>	1993 FLAMMABLE LIQUID, N.O.S. (METHYL METHACRYLATE MONOMER, STABILIZED) FLAMMABLE LIQUID, N.O.S. (METHYL METHACRYLATE MONOMER, STABILIZED)
· <b>14.3 Transport hazard class(es)</b> · <b>ADR, IMDG, IATA</b>	
	
· <b>Class</b> · <b>Label</b>	3 Flammable liquids. 3
· <b>14.4 Packing group</b> · <b>ADR, IMDG, IATA</b>	II
· <b>14.5 Environmental hazards:</b> · <b>Marine pollutant:</b>	No
· <b>14.6 Special precautions for user</b> · <b>Danger code (Kemler):</b> · <b>EMS Number:</b>	Warning: Flammable liquids. 33 F-E,S-E
· <b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADR</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>Transport category</b> · <b>Tunnel restriction code</b>	2 D/E
· <b>IMDG</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml

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· UN "Model Regulation": UN1993, FLAMMABLE LIQUID, N.O.S. (METHYL METHACRYLATE MONOMER, STABILIZED), 3, II

### 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.
- 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**

- H225 Highly flammable liquid and vapour.
- H226 Flammable liquid and vapour.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H361d Suspected of damaging the unborn child.
- H372 Causes damage to the hearing organs through prolonged or repeated exposure.

· **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)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- Flam. Liq. 2: Flammable liquids, Hazard Category 2
- Flam. Liq. 3: Flammable liquids, Hazard Category 3
- Acute Tox. 4: Acute toxicity, Hazard Category 4
- 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
- Repr. 2: Reproductive toxicity, Hazard Category 2
- STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
- STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1
- STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

GB



# Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 18.07.2015

Herziening van: 18.07.2015

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

- **1.1 Productidentificatie**
- **Handelsnaam:** UNICRYL EMBEDDING KIT
- **Artikelnummer:** 14660
- **1.2 Relevant geïdentificeerd gebruik van de stof of het mengsel en ontraden gebruik**  
Geen verdere relevante informatie verkrijgbaar.
- **Toepassing van de stof / van de bereiding** Laboratoriumchemicaliën
- **1.3 Details betreffende de verstrekker van het veiligheidsinformatieblad**
- **Fabrikant/leverancier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Aurion**  
Binnenhaven 5  
6709 PD Wageningen  
The Netherlands  
Tel: 31 317 415094  
Fax: 31 317 415955  
email: info@aurion.nl
- **Inlichtinggevendende sector:** Product safety department
- **1.4 Telefoonnummer voor noodgevallen:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## RUBRIEK 2: Identificatie van de gevaren

- **2.1 Indeling van de stof of het mengsel**
- **Indeling overeenkomstig Verordening (EG) nr. 1272/2008**



GHS02 vlam

Flam. Liq. 2 H225 Licht ontvlambare vloeistof en damp.



GHS08 gezondheidsgevaar

Repr. 2 H361d Wordt ervan verdacht het ongeboren kind te schaden.

STOT RE 2 H373 Kan schade aan de gehoororganen veroorzaken bij langdurige of herhaalde blootstelling.



GHS07

Skin Irrit. 2 H315 Veroorzaakt huidirritatie.

Skin Sens. 1 H317 Kan een allergische huidreactie veroorzaken.

STOT SE 3 H335 Kan irritatie van de luchtwegen veroorzaken.

- **2.2 Etiketteringselementen**
- **Etikettering overeenkomstig Verordening (EG) nr. 1272/2008**  
Het product is geclassificeerd en geëtiketteerd volgens de CLP-verordening.

(Vervolg op blz. 2)

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(Vervolg van blz. 1)

· **Gevarenpictogrammen**

GHS02 GHS07 GHS08

· **Signaalwoord** Gevaar· **Gevaaraanduidende componenten voor de etikettering:**

methylmethacrylaat

styreen

· **Gevarenaanduidingen**

H225 Licht ontvlambare vloeistof en damp.

H315 Veroorzaakt huidirritatie.

H317 Kan een allergische huidreactie veroorzaken.

H361d Wordt ervan verdacht het ongeboren kind te schaden.

H335 Kan irritatie van de luchtwegen veroorzaken.

H373 Kan schade aan de gehoororganen veroorzaken bij langdurige of herhaalde blootstelling.

· **Veiligheidsaanbevelingen**

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

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

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

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: 80-62-6 EINECS: 201-297-1	methylmethacrylaat ⚠ Flam. Liq. 2, H225; ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	50-100%
CAS: 100-42-5 EINECS: 202-851-5	styreen ⚠ Flam. Liq. 3, H226; ⚠ Repr. 2, H361d; STOT RE 1, H372; ⚠ Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319	2,5-10%

· **Aanvullende gegevens:**

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

(Vervolg op blz. 3)

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(Vervolg van blz. 2)

### RUBRIEK 4: Eerstehulpmaatregelen

#### · 4.1 Beschrijving van de eerstehulpmaatregelen

##### · Algemene informatie:

Het is mogelijk dat vergiftigingssymptomen pas na vele uren optreden. Om deze reden is medische controle gedurende minstens 48 uur na een ongeval noodzakelijk.

##### · 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 bij geopend ooglid meerdere minuten met stromend water spoelen

##### · Na inslikken: Als de klachten niet minderen, een arts raadplegen

#### · 4.2 Belangrijkste acute en uitgestelde symptomen en effecten

Geen verdere relevante informatie verkrijgbaar.

#### · 4.3 Vermelding van de vereiste onmiddellijke medische verzorging en speciale behandeling

Geen verdere relevante informatie verkrijgbaar.

### RUBRIEK 5: Brandbestrijdingsmaatregelen

#### · 5.1 Blusmiddelen

##### · Geschikte blusmiddelen: CO<sub>2</sub>, zand, bluspoeder. Geen water gebruiken.

##### · Blusmiddelen die uit veiligheidsoogpunt niet geschikt zijn: Krachtige waterstraal

#### · 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: Geen bijzondere maatregelen nodig.

### 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: Niet in de riolering/het oppervlaktewater/het grondwater laten terechtkomen.

#### · 6.3 InsluTINGS- en reinigingsmethoden en -materiaal:

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

Besmet materiaal zoals afval volgens punt 13 verwijderen.

Voor voldoende ventilatie zorgen.

Niet met water of waterachtige reinigingsmiddelen wegspoelen.

#### · 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.

### RUBRIEK 7: Hantering en opslag

#### · 7.1 Voorzorgsmaatregelen voor het veilig hanteren van de stof of het mengsel

Voor goede ventilatie/afzuiging op de werkplaatsen zorgen.

Tanks voorzichtig openen en behandelen.

Aërosolvorming vermijden.

##### · Informatie m.b.t. brand- en ontploffingsgevaar:

Onststekingsbronnen op afstand houden - niet roken.

Beschermen tegen hitte.

Maatregelen treffen tegen ontlading van statische elektriciteit.

(Vervolg op blz. 4)

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Ademhalingstoestellen gereedhouden.

- **7.2 Voorwaarden voor een veilige opslag, met inbegrip van incompatibele producten**

- **Opslag:**

- **Eisen ten opzichte van opslagruimte en tanks:** Op een koele plaats bewaren.

- **Informatie m.b.t. gezamenlijke opslag:** Niet noodzakelijk.

- **Verdere inlichtingen over eisen m.b.t. de opslag:**

- Tanks ondoordringbaar gesloten houden.

- Koel en droog bewaren in goed gesloten vaten.

- Tegen hitte en directe zonnestralen beschermen.

- **7.3 Specifiek eindgebruik** Geen verdere relevante informatie verkrijgbaar.

### RUBRIEK 8: Maatregelen ter beheersing van blootstelling/persoonlijke bescherming

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

- **8.1 Controleparameters**

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

- 80-62-6 methylmethacrylaat**

WGW	Korte termijn waarde: 410 mg/m <sup>3</sup> , 100 ppm
	Lange termijn waarde: 205 mg/m <sup>3</sup> , 50 ppm

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

- **8.2 Maatregelen ter beheersing van blootstelling**

- **Persoonlijke beschermingsvoorzieningen:**

- **Algemene beschermings- en gezondheidsmaatregelen:**

- Verwijderd houden van eet- en drinkwaren.

- Verontreinigde kleding onmiddellijk uittrekken.

- Vóór de pauze en aan het einde van werktijd handen wassen.

- Beschermende kleding afzonderlijk bewaren.

- Aanraking met de huid vermijden.

- Aanraking met de ogen en de huid vermijden.

- **Ademhalingsbescherming:**

- Bij korte of geringe belasting ademfiltertoestel; bij intensieve resp. langdurige expositie een van de omringende lucht onafhankelijk 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 chemicaliënmengsel afgegeven worden.

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

- **Handschoenmateriaal**

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

<b>Vorm:</b>	Vloeistof
<b>Kleur:</b>	Geel
<b>Reuk:</b>	Stekend
<b>Geurdrempelwaarde:</b>	Niet bepaald.

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

<b>Smeltpunt/smeltbereik:</b>	Niet bepaald.
<b>Kookpunt/kookpuntbereik:</b>	101 °C

**· Vlampunt:** 10 °C**· Ontvlambaarheid (vast, gasvormig):** Niet bruikbaar.**· Ontstekingstemperatuur:** 430 °C**· Ontbindingstemperatuur:** Niet bepaald.**· Zelfonsteking:** Het produkt ontbrandt niet uit zichzelf.**· Ontploffingsgevaar:** Het produkt is niet ontploffingsgevaarlijk, maar de vorming van ontploffingsgevaarlijke damp-/luchtmengsels is mogelijk.**· Ontploffingsgrenzen:**

<b>Onderste:</b>	2,1 Vol %
<b>Bovenste:</b>	12,5 Vol %

**· Dampspanning bij 20 °C:** 47 hPa**· Dichtheid:** Niet bepaald.**· Relatieve dichtheid** Niet bepaald.**· Dampdichtheid** Niet bepaald.**· Verdampingsnelheid** 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:**

<b>Organisch oplosmiddel:</b>	4,0 %
<b>VOC (EG)</b>	4,00 %

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**· 9.2 Overige informatie**

Geen verdere relevante informatie verkrijgbaar.

**RUBRIEK 10: Stabiliteit en reactiviteit**

- **10.1 Reactiviteit**
- **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**

· Indelingsrelevantie LD/LC50-waarden:		
80-62-6 methylmethacrylaat		
Oraal	LD50	7872 mg/kg (rat)
100-42-5 styreen		
Oraal	LD50	5000 mg/kg (rat)
Inhalatief	LC50/4 h	24 mg/l (rat)

- **Primaire aandoening:**
- **Huidcorrosie/-irritatie** Prikfelt de huid en de slijmvliezen.
- **Ernstig oogletsel/oogirritatie** Geen prikkelend effect.
- **Sensibilisatie van de luchtwegen/de huid** Kan overgevoeligheid veroorzaken bij contact met de huid.
- **Aanvullende toxicologische informatie:**  
Het product vertoont op grond van het berekeningsprocédé van de algemene classificatie-richtlijnen van de EG voor toebereidingen in de laatste geldige redactie de volgende gevaren:  
Irriterend
- **CMR-effecten (kankerverwekkendheid, mutageniteit en giftigheid voor de voortplanting)**  
Repr. 2

**RUBRIEK 12: Ecologische informatie**

- **12.1 Toxiciteit**
- **Aquatische toxiciteit:** Geen verdere relevante informatie verkrijgbaar.
- **12.2 Persistentie en afbreekbaarheid** Geen verdere relevante informatie verkrijgbaar.
- **12.3 Bioaccumulatie** Geen verdere relevante informatie verkrijgbaar.
- **12.4 Mobiliteit in de bodem** Geen verdere relevante informatie verkrijgbaar.
- **Verdere ecologische informatie:**
- **Algemene informatie:**  
Waterbezwaarlijkheid (NL) 10: Kan in het aquatisch milieu op lange termijn schadelijke effecten veroorzaken.  
Gevaar voor water klasse 1 (D) (Zelfclassificatie): gevaar voor water klein  
Niet onverdund of in grote hoeveelheden lozen in grondwater, in oppervlaktewater of in de riolering.
- **12.5 Resultaten van PBT- en zPzB-beoordeling**
- **PBT:** Niet bruikbaar.
- **zPzB:** Niet bruikbaar.

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 · **12.6 Andere schadelijke effecten** Geen verdere relevante informatie verkrijgbaar.

### RUBRIEK 13: Instructies voor verwijdering

 · **13.1 Afvalverwerkingsmethoden**

 · **Aanbeveling:** Mag niet tesamen met huisvuil gestort worden of in de riolering terechtkomen.

 · **Niet gereinigde verpakkingen:**

 · **Aanbeveling:** Afvalverwijdering volgens overheidsbepalingen.

### RUBRIEK 14: Informatie met betrekking tot het vervoer

 · **14.1 VN-nummer**

 · **ADR, IMDG, IATA**

UNI993

 · **14.2 Juiste ladingnaam overeenkomstig de modelreglementen van de VN**

 · **ADR**

 1993 BRANDBARE VLOEISTOF, N.E.G.  
 (METHYLMETHACRYLAAT, MONOMEER,  
 GESTABILISEERD)

 · **IMDG, IATA**

 FLAMMABLE LIQUID, N.O.S. (METHYL METHACRYLATE  
 MONOMER, STABILIZED)

 · **14.3 Transportgevarenklasse(n)**

 · **ADR, IMDG, IATA**

 · **klasse**

3 Brandbare vloeistoffen

 · **Etiket**

3

 · **14.4 Verpakkingsgroep:**

 · **ADR, IMDG, IATA**

II

 · **14.5 Milieugevaren:**

 · **Marine pollutant:**

Neen

 · **14.6 Bijzondere voorzorgen voor de gebruiker**

Waarschuwing: Brandbare vloeistoffen

 · **Kemler-getal:**

33

 · **EMS-nummer:**
F-E,S-E
 · **14.7 Vervoer in bulk overeenkomstig bijlage II bij**
**MARPOL 73/78 en de IBC-code**

Niet bruikbaar.

 · **Transport/verdere gegevens:**

 · **ADR**

 · **Beperkte hoeveelheden (LQ)**

1L

 · **Uitgezonderde hoeveelheden (EQ)**

Code: E2

Grootste netto hoeveelheid per binnenverpakking: 30 ml

Grootste netto hoeveelheid per buitenverpakking: 500 ml

 · **Vervoerscategorie**

2

 · **Tunnelbeperkingscode**

D/E

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<ul style="list-style-type: none"> <li>· <b>IMDG</b></li> <li>· <b>Limited quantities (LQ)</b></li> <li>· <b>Excepted quantities (EQ)</b></li> </ul>	<p>1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml</p>
<ul style="list-style-type: none"> <li>· <b>VN "Model Regulation":</b></li> </ul>	<p>UN1993, BRANDBARE VLOEISTOF, N.E.G. (METHYLMETHACRYLAAT, MONOMEER, GESTABILISEERD), 3, II</p>

## 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**

100-42-5 styreen

3

- **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.

- **Nationale voorschriften:**

- **Gevaarklasse v. water:** Waterbezwaarlijkheid (NL) 10: Saneringsinspanning A

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

## RUBRIEK 16: Overige informatie

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

- **Relevante zinnen**

H225 Licht ontvlambare vloeistof en damp.

H226 Ontvlambare vloeistof en damp.

H315 Veroorzaakt huidirritatie.

H317 Kan een allergische huidreactie veroorzaken.

H319 Veroorzaakt ernstige oogirritatie.

H332 Schadelijk bij inademing.

H335 Kan irritatie van de luchtwegen veroorzaken.

H361d Wordt ervan verdacht het ongeboren kind te schaden.

H372 Veroorzaakt schade aan de gehoororganen bij langdurige of herhaalde blootstelling.

- **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

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*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)*  
*LC50: Lethal concentration, 50 percent*  
*LD50: Lethal dose, 50 percent*  
*Flam. Liq. 2: Flammable liquids, Hazard Category 2*  
*Flam. Liq. 3: Flammable liquids, Hazard Category 3*  
*Acute Tox. 4: Acute toxicity, Hazard Category 4*  
*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*  
*Repr. 2: Reproductive toxicity, Hazard Category 2*  
*STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3*  
*STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1*  
*STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2*

NL

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

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

- **1.1 Identificateur de produit**
- **Nom du produit:** UNICRYL EMBEDDING KIT
- **Code du produit:** 14660
- **1.2 Utilisations identifiées pertinentes de la substance ou du mélange et utilisations déconseillées**  
Pas d'autres informations importantes disponibles.
- **Emploi de la substance / de la préparation** Produits chimiques pour laboratoires
- **1.3 Renseignements concernant le fournisseur de la fiche de données de sécurité**
- **Producteur/fournisseur:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Service chargé des renseignements:** Product safety department
- **1.4 Numéro d'appel d'urgence:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### SECTION 2: Identification des dangers

- **2.1 Classification de la substance ou du mélange**
- **Classification selon le règlement (CE) n° 1272/2008**



GHS02 flamme

Flam. Liq. 2 H225 Liquide et vapeurs très inflammables.



GHS08 danger pour la santé

Repr. 2 H361d Susceptible de nuire au fœtus.

STOT RE 2 H373 Risque présumé d'effets graves pour les organes de l'ouïe à la suite d'expositions répétées ou d'une exposition prolongée.



GHS07

Skin Irrit. 2 H315 Provoque une irritation cutanée.

Skin Sens. 1 H317 Peut provoquer une allergie cutanée.

STOT SE 3 H335 Peut irriter les voies respiratoires.

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



GHS02



GHS07



GHS08

(suite page 2)

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- **Mention d'avertissement** Danger

- **Composants dangereux déterminants pour l'étiquetage:**

méthacrylate de méthyle  
styrène

- **Mentions de danger**

H225 Liquide et vapeurs très inflammables.

H315 Provoque une irritation cutanée.

H317 Peut provoquer une allergie cutanée.

H361d Susceptible de nuire au fœtus.

H335 Peut irriter les voies respiratoires.

H373 Risque présumé d'effets graves pour les organes de l'ouïe à la suite d'expositions répétées ou d'une exposition prolongée.

- **Conseils de prudence**

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

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

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

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.

### SECTION 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: 80-62-6 EINECS: 201-297-1	méthacrylate de méthyle Flam. Liq. 2, H225; Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	50-100%
CAS: 100-42-5 EINECS: 202-851-5	styrène Flam. Liq. 3, H226; Repr. 2, H361d; STOT RE 1, H372; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319	2,5-10%

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

### SECTION 4: Premiers secours

- **4.1 Description des premiers secours**

- **Remarques générales:**

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

- **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.

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- **Après contact avec les yeux:**  
Rincer les yeux, sous l'eau courante, pendant plusieurs minutes, en écartant bien les paupières.
- **Après ingestion:** Si les troubles persistent, consulter 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.

### SECTION 5: Mesures de lutte contre l'incendie

- **5.1 Moyens d'extinction**
- **Moyens d'extinction:** CO2, sable, poudre d'extinction. Ne pas utiliser d'eau.
- **Produits extincteurs déconseillés pour des raisons de sécurité:** Jet d'eau à grand débit
- **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:** Aucune mesure particulière n'est requise.

### SECTION 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:**  
Ne pas rejeter dans les canalisations, dans les eaux de surface et dans les nappes d'eau souterraines.
- **6.3 Méthodes et matériel de confinement et de nettoyage:**  
Recueillir les liquides à l'aide d'un produit absorbant (sable, kieselguhr, neutralisant d'acide, liant universel, sciure).  
Évacuer les matériaux contaminés en tant que déchets conformément au point 13.  
Assurer une aération suffisante.  
Ne pas rincer à l'eau ou aux produits nettoyants aqueux.
- **6.4 Référence à d'autres sections**  
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.

### SECTION 7: Manipulation et stockage

- **7.1 Précautions à prendre pour une manipulation sans danger**  
Veiller à une bonne ventilation/aspiration du poste de travail.  
Ouvrir et manipuler les récipients avec précaution.  
Éviter la formation d'aérosols.
- **Préventions des incendies et des explosions:**  
Tenir à l'abri des sources d'inflammation - ne pas fumer.  
Tenir à l'abri de la chaleur.  
Prendre des mesures contre les charges électrostatiques.  
Tenir des appareils de protection respiratoire prêts.
- **7.2 Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités**
- **Stockage:**
- **Exigences concernant les lieux et conteneurs de stockage:** Stocker dans un endroit frais.
- **Indications concernant le stockage commun:** Pas nécessaire.
- **Autres indications sur les conditions de stockage:**  
Tenir les emballages hermétiquement fermés.

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Stocker au frais et au sec dans des fûts bien fermés.

Protéger de la forte chaleur et du rayonnement direct du soleil.

· **7.3 Utilisation(s) finale(s) particulière(s)** Pas d'autres informations importantes disponibles.

### SECTION 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:**

**80-62-6 méthacrylate de méthyle**

VME	Valeur momentanée: 410 mg/m <sup>3</sup> , 100 ppm
	Valeur à long terme: 205 mg/m <sup>3</sup> , 50 ppm

**100-42-5 styrène**

VME	Valeur à long terme: 215 mg/m <sup>3</sup> , 50 ppm
-----	---

· **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 la peau.

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

### SECTION 9: Propriétés physiques et chimiques

· **9.1 Informations sur les propriétés physiques et chimiques essentielles**· **Indications générales**· **Aspect:**

· <b>Forme:</b>	Liquide
· <b>Couleur:</b>	Jaune
· <b>Odeur:</b>	Piquante
· <b>Seuil olfactif:</b>	Non déterminé.

· **valeur du pH:** Non déterminé.· **Changement d'état**

· <b>Point de fusion:</b>	Non déterminé.
· <b>Point d'ébullition:</b>	101 °C

· **Point d'éclair** 10 °C· **Inflammabilité (solide, gazeux):** Non applicable.· **Température d'inflammation:** 430 °C· **Température de décomposition:** Non déterminé.· **Auto-inflammation:** Le produit ne s'enflamme pas spontanément.· **Danger d'explosion:** Le produit n'est pas explosif; toutefois, des mélanges explosifs vapeur-air peuvent se former.· **Limites d'explosion:**

· <b>Inférieure:</b>	2,1 Vol %
· <b>Supérieure:</b>	12,5 Vol %

· **Pression de vapeur à 20 °C:** 47 hPa· **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:**

· <b>Dynamique:</b>	Non déterminé.
· <b>Cinématique:</b>	Non déterminé.

· **Teneur en solvants:**

· <b>Solvants organiques:</b>	4,0 %
· <b>VOC (CE)</b>	4,00 %

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· **9.2 Autres informations** Pas d'autres informations importantes disponibles.

### SECTION 10: Stabilité et réactivité

- **10.1 Réactivité**
- **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

### SECTION 11: Informations toxicologiques

- **11.1 Informations sur les effets toxicologiques**
- **Toxicité aiguë**

· **Valeurs LD/LC50 déterminantes pour la classification:**

#### 80-62-6 méthacrylate de méthyle

Oral	LD50	7872 mg/kg (rat)
------	------	------------------

#### 100-42-5 styrène

Oral	LD50	5000 mg/kg (rat)
------	------	------------------

Inhalatoire	LC50/4 h	24 mg/l (rat)
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- **Effet primaire d'irritation:**
- **Corrosion cutanée/irritation cutanée** Irrite la peau et les muqueuses.
- **Lésions oculaires graves/irritation oculaire** Pas d'effet d'irritation.
- **Sensibilisation respiratoire ou cutanée** Sensibilisation possible par contact avec la peau.
- **Indications toxicologiques complémentaires:**  
Selon le procédé de calcul de la dernière version en vigueur de la directive générale CEE sur la classification des préparations, le produit présente les dangers suivants:  
Irritant
- **Effets CMR (cancérogène, mutagène et toxique pour la reproduction)**  
Repr. 2

### SECTION 12: Informations écologiques

- **12.1 Toxicité**
- **Toxicité aquatique:** Pas d'autres informations importantes disponibles.
- **12.2 Persistance et dégradabilité** Pas d'autres informations importantes disponibles.
- **12.3 Potentiel de bioaccumulation** Pas d'autres informations importantes disponibles.
- **12.4 Mobilité dans le sol** Pas d'autres informations importantes disponibles.
- **Autres indications écologiques:**
- **Indications générales:**  
Catégorie de pollution des eaux 1 (D) (Classification propre): peu polluant  
Ne pas laisser le produit, non dilué ou en grande quantité, pénétrer la nappe phréatique, les eaux ou les canalisations.
- **12.5 Résultats des évaluations PBT et VPVB**
- **PBT:** Non applicable.
- **vPvB:** Non applicable.

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· **12.6 Autres effets néfastes** Pas d'autres informations importantes disponibles.

### SECTION 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.

### SECTION 14: Informations relatives au transport

· **14.1 No ONU**

· **ADR, IMDG, IATA**

UN1993

· **14.2 Nom d'expédition des Nations unies**

· **ADR**

1993 LIQUIDE INFLAMMABLE, N.S.A.  
(MÉTHACRYLATE DE MÉTHYLE MONOMÈRE  
STABILISÉ)

· **IMDG, IATA**

FLAMMABLE LIQUID, N.O.S. (METHYL  
METHACRYLATE MONOMER, STABILIZED)

· **14.3 Classe(s) de danger pour le transport**

· **ADR, IMDG, IATA**



· **Classe**

3 Liquides inflammables.

· **Étiquette**

3

· **14.4 Groupe d'emballage**

· **ADR, IMDG, IATA**

II

· **14.5 Dangers pour l'environnement:**

· **Marine Pollutant:**

Non

· **14.6 Précautions particulières à prendre par l'utilisateur**

Attention: Liquides inflammables.

· **Indice Kemler:**

33

· **No EMS:**

F-E,S-E

· **14.7 Transport en vrac conformément à l'annexe II de la convention Marpol 73/78 et au recueil IBC**

Non applicable.

· **Indications complémentaires de transport:**

· **ADR**

· **Quantités limitées (LQ)**

IL

· **Quantités exceptées (EQ)**

Code: E2

Quantité maximale nette par emballage intérieur: 30 ml

Quantité maximale nette par emballage extérieur: 500

ml

· **Catégorie de transport**

2

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· <b>Code de restriction en tunnels</b>	D/E
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>"Règlement type" de l'ONU:</b>	UN1993, LIQUIDE INFLAMMABLE, N.S.A. (MÉTHACRYLATE DE MÉTHYLE MONOMÈRE STABILISÉ), 3, II

### SECTION 15: Informations réglementaires

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

### SECTION 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**
  - H225 Liquide et vapeurs très inflammables.
  - H226 Liquide et vapeurs inflammables.
  - H315 Provoque une irritation cutanée.
  - H317 Peut provoquer une allergie cutanée.
  - H319 Provoque une sévère irritation des yeux.
  - H332 Nocif par inhalation.
  - H335 Peut irriter les voies respiratoires.
  - H361d Susceptible de nuire au fœtus.
  - H372 Risque avéré d'effets graves pour les organes de l'ouïe à la suite d'expositions répétées ou d'une exposition prolongée.
- **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)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - Flam. Liq. 2: Flammable liquids, Hazard Category 2
  - Flam. Liq. 3: Flammable liquids, Hazard Category 3
  - Acute Tox. 4: Acute toxicity, Hazard Category 4
  - 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
  - Repr. 2: Reproductive toxicity, Hazard Category 2
  - STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
  - STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1
  - STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

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### ABSCHNITT 1: Bezeichnung des Stoffs bzw. des Gemischs und des Unternehmens

- **1.1 Produktidentifikator**
- **Handelsname:** UNICRYL EMBEDDING KIT
- **Artikelnummer:** 14660
- **1.2 Relevante identifizierte Verwendungen des Stoffs oder Gemischs und Verwendungen, von denen abgeraten wird**  
Keine weiteren relevanten Informationen verfügbar.
- **Verwendung des Stoffes / des Gemisches** Laborchemikalien
- **1.3 Einzelheiten zum Lieferanten, der das Sicherheitsdatenblatt bereitstellt**
- **Hersteller/Lieferant:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com  
  
Science Services GmbH  
Unterhachinger Str. 75  
81737 München Germany  
Tel: +49(0)89 18 93 668-0  
safety@scienceservices.de  
  
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**



GHS02 Flamme

Flam. Liq. 2 H225 Flüssigkeit und Dampf leicht entzündbar.



GHS08 Gesundheitsgefahr

Repr. 2 H361d Kann vermutlich das Kind im Mutterleib schädigen.

STOT RE 2 H373 Kann die Hörorgane schädigen bei längerer oder wiederholter Exposition.



GHS07

Skin Irrit. 2 H315 Verursacht Hautreizungen.

Skin Sens. 1 H317 Kann allergische Hautreaktionen verursachen.

STOT SE 3 H335 Kann die Atemwege reizen.

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- **2.2 Kennzeichnungselemente**
- **Kennzeichnung gemäß Verordnung (EG) Nr. 1272/2008**  
Das Produkt ist gemäß CLP-Verordnung eingestuft und gekennzeichnet.
- **Gefahrenpiktogramme**



GHS02   GHS07   GHS08

- **Signalwort Gefahr**
- **Gefahrbestimmende Komponenten zur Etikettierung:**  
Methyl-methacrylat  
Styrol
- **Gefahrenhinweise**  
H225 Flüssigkeit und Dampf leicht entzündbar.  
H315 Verursacht Hautreizungen.  
H317 Kann allergische Hautreaktionen verursachen.  
H361d Kann vermutlich das Kind im Mutterleib schädigen.  
H335 Kann die Atemwege reizen.  
H373 Kann die Hörorgane schädigen bei längerer oder wiederholter Exposition.
- **Sicherheitshinweise**  
P210 Von Hitze, heißen Oberflächen, Funken, offenen Flammen und anderen Zündquellen fernhalten. Nicht rauchen.  
P241 Explosionsgeschützte elektrische Geräte/Lüftungsanlagen/Beleuchtungsanlagen verwenden.  
P303+P361+P353 BEI BERÜHRUNG MIT DER HAUT (oder dem Haar): Alle kontaminierten Kleidungsstücke sofort ausziehen. Haut mit Wasser abwaschen/duschen.  
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: 80-62-6 EINECS: 201-297-1	Methyl-methacrylat ⚠ Flam. Liq. 2, H225; ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	50-100%
CAS: 100-42-5 EINECS: 202-851-5	Styrol ⚠ Flam. Liq. 3, H226; ⚠ Repr. 2, H361d; STOT RE 1, H372; ⚠ Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319	2,5-10%

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

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### ABSCHNITT 4: Erste-Hilfe-Maßnahmen

#### · 4.1 Beschreibung der Erste-Hilfe-Maßnahmen

##### · **Allgemeine Hinweise:**

Vergiftungssymptome können erst nach vielen Stunden auftreten, deshalb ärztliche Überwachung mindestens 48 Stunden nach einem Unfall.

##### · **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 mit fließendem Wasser spülen.

##### · **Nach Verschlucken:** Bei anhaltenden Beschwerden Arzt konsultieren.

#### · 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:** CO<sub>2</sub>, Sand, Löschpulver. Kein Wasser verwenden.

##### · **Aus Sicherheitsgründen ungeeignete Löschmittel:** Wasser im Vollstrahl

#### · 5.2 Besondere vom Stoff oder Gemisch ausgehende Gefahren

Keine weiteren relevanten Informationen verfügbar.

#### · 5.3 Hinweise für die Brandbekämpfung

##### · **Besondere Schutzausrüstung:** Keine besonderen Maßnahmen erforderlich.

### ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung

#### · 6.1 Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren

Schutztausrüstung tragen. Ungeschützte Personen fernhalten.

#### · 6.2 Umweltschutzmaßnahmen: Nicht in die Kanalisation/Oberflächenwasser/Grundwasser gelangen lassen.

#### · 6.3 Methoden und Material für Rückhaltung und Reinigung:

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

Kontaminiertes Material als Abfall nach Abschnitt 13 entsorgen.

Für ausreichende Lüftung sorgen.

Nicht mit Wasser oder wäßrigen Reinigungsmitteln wegspülen.

#### · 6.4 Verweis auf andere Abschnitte

Informationen zur sicheren Handhabung siehe Abschnitt 7.

Informationen zur persönlichen Schutzausrüstung siehe Abschnitt 8.

Informationen zur Entsorgung siehe Abschnitt 13.

### ABSCHNITT 7: Handhabung und Lagerung

#### · 7.1 Schutzmaßnahmen zur sicheren Handhabung

Für gute Belüftung/Absaugung am Arbeitsplatz sorgen.

Behälter mit Vorsicht öffnen und handhaben.

Aerosolbildung vermeiden.

#### · **Hinweise zum Brand- und Explosionsschutz:**

Zündquellen fernhalten - nicht rauchen.

Vor Hitze schützen.

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Maßnahmen gegen elektrostatische Aufladung treffen.  
Atemschutzgeräte bereithalten.

· **7.2 Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten**

· **Lagerung:**

· **Anforderung an Lagerräume und Behälter:** An einem kühlen Ort lagern.

· **Zusammenlagerungshinweise:** Nicht erforderlich.

· **Weitere Angaben zu den Lagerbedingungen:**

Behälter dicht geschlossen halten.

In gut verschlossenen Gebinden kühl und trocken lagern.

Vor Hitze und direkter Sonnenbestrahlung schützen.

· **Lagerklasse:**

· **Klassifizierung nach Betriebssicherheitsverordnung (BetrSichV):** Leichtentzündlich

· **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:**

**80-62-6 Methyl-methacrylat**

AGW	Langzeitwert: 210 mg/m <sup>3</sup> , 50 ml/m <sup>3</sup> 2(I);DFG, EU, Y
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**100-42-5 Styrol**

AGW	Langzeitwert: 86 mg/m <sup>3</sup> , 20 ml/m <sup>3</sup> 2(II);DFG, Y
-----	---

· **Bestandteile mit biologischen Grenzwerten:**

**100-42-5 Styrol**

BGW	600 mg/g Kreatinin Untersuchungsmaterial: Urin Probennahmezeitpunkt: bei Langzeitexposition: Nach mehreren vorangegangenen Schichten, Expositionsende bzw. Schichtende Parameter: Mandelsäure plus Phenylglyoxylsäure
-----	--

· **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 der Haut vermeiden.

Berührung mit den Augen und der Haut vermeiden.

· **Atemschutz:**

Bei kurzzeitiger oder geringer Belastung Atemfiltergerät; bei intensiver bzw. längerer Exposition umluftunabhängiges Atemschutzgerät verwenden.

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**· Handschutz:**

Schutzhandschuhe

Das Handschuhmaterial muss undurchlässig und beständig gegen das Produkt / den Stoff / die Zubereitung sein. Aufgrund fehlender Tests kann keine Empfehlung zum Handschuhmaterial für das Produkt / die Zubereitung / das Chemikaliengemisch abgegeben werden.

Auswahl des Handschuhmaterials unter Beachtung der Durchbruchzeiten, Permeationsraten und der Degradation.

**· Handschuhmaterial**

Die Auswahl eines geeigneten Handschuhs ist nicht nur vom Material, sondern auch von weiteren Qualitätsmerkmalen abhängig und von Hersteller zu Hersteller unterschiedlich. Da das Produkt eine Zubereitung aus mehreren Stoffen darstellt, ist die Beständigkeit von Handschuhmaterialen 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:** Gelb

**· Geruch:** Stechend

**· Geruchsschwelle:** Nicht bestimmt.

**· pH-Wert:** Nicht bestimmt.

**· Zustandsänderung**

**Schmelzpunkt/Schmelzbereich:** Nicht bestimmt.

**Siedepunkt/Siedebereich:** 101 °C

**· Flammpunkt:** 10 °C

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

**· Zündtemperatur:** 430 °C

**· Zersetzungstemperatur:** Nicht bestimmt.

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

**· Explosionsgefahr:** Das Produkt ist nicht explosionsgefährlich, jedoch ist die Bildung explosionsgefährlicher Dampf-/Luftgemische möglich.

**· Explosionsgrenzen:**

**Untere:** 2,1 Vol %

**Obere:** 12,5 Vol %

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· <b>Dampfdruck bei 20 °C:</b>	47 hPa
· <b>Dichte:</b>	Nicht bestimmt.
· <b>Relative Dichte</b>	Nicht bestimmt.
· <b>Dampfdichte</b>	Nicht bestimmt.
· <b>Verdampfungsgeschwindigkeit</b>	Nicht bestimmt.
· <b>Löslichkeit in / Mischbarkeit mit Wasser:</b>	Nicht bzw. wenig mischbar.
· <b>Verteilungskoeffizient (n-Octanol/Wasser):</b>	Nicht bestimmt.
· <b>Viskosität:</b>	
<b>Dynamisch:</b>	Nicht bestimmt.
<b>Kinematisch:</b>	Nicht bestimmt.
· <b>Lösemittelgehalt:</b>	
<b>Organische Lösemittel:</b>	4,0 %
<b>VOC (EU)</b>	4,00 %
· <b>9.2 Sonstige Angaben</b>	Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 10: Stabilität und Reaktivität

- **10.1 Reaktivität**
- **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**

· <b>Einstufungsrelevante LD/LC50-Werte:</b>		
<b>80-62-6 Methyl-methacrylat</b>		
Oral	LD50	7872 mg/kg (rat)
<b>100-42-5 Styrol</b>		
Oral	LD50	5000 mg/kg (rat)
Inhalativ	LC50/4 h	24 mg/l (rat)

- **Primäre Reizwirkung:**
- **Ätz-/Reizwirkung auf die Haut** Reizt die Haut und die Schleimhäute.
- **Schwere Augenschädigung/-reizung** Keine Reizwirkung.
- **Sensibilisierung der Atemwege/Haut** Durch Hautkontakt Sensibilisierung möglich.
- **Zusätzliche toxikologische Hinweise:**  
Das Produkt weist aufgrund des Berechnungsverfahrens der Allgemeinen Einstufungsrichtlinie der EG für Zubereitungen in der letztgültigen Fassung folgende Gefahren auf:  
Reizend

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- **CMR-Wirkungen (krebserzeugende, erbgutverändernde und fortpflanzungsgefährdende Wirkung)**  
Repr. 2


### ABSCHNITT 12: Umweltbezogene Angaben

- **12.1 Toxizität**
- **Aquatische Toxizität:** Keine weiteren relevanten Informationen verfügbar.
- **12.2 Persistenz und Abbaubarkeit** Keine weiteren relevanten Informationen verfügbar.
- **12.3 Bioakkumulationspotenzial** Keine weiteren relevanten Informationen verfügbar.
- **12.4 Mobilität im Boden** Keine weiteren relevanten Informationen verfügbar.
- **Weitere ökologische Hinweise:**
- **Allgemeine Hinweise:**  
Wassergefährdungsklasse 1 (Selbsteinstufung): schwach wassergefährdend  
Nicht unverdünnt bzw. in größeren Mengen in das Grundwasser, in Gewässer oder in die Kanalisation gelangen lassen.
- **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"> <li>· <b>14.1 UN-Nummer</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>   | UN1993   |
| <ul style="list-style-type: none"> <li>· <b>14.2 Ordnungsgemäße UN-Versandbezeichnung</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG, IATA</b></li> </ul> | 1993 ENTZÜNDBARER FLÜSSIGER STOFF, N.A.G. (METHYLMETHACRYLAT, MONOMER, STABILISIERT)<br>FLAMMABLE LIQUID, N.O.S. (METHYL METHACRYLATE MONOMER, STABILIZED) |
| <ul style="list-style-type: none"> <li>· <b>14.3 Transportgefahrenklassen</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>                              | <div style="text-align: center;">  </div>                               |
| <ul style="list-style-type: none"> <li>· <b>Klasse</b></li> <li>· <b>Gefahrzettel</b></li> </ul>  | 3 Entzündbare flüssige Stoffe<br>3   |
| <ul style="list-style-type: none"> <li>· <b>14.4 Verpackungsgruppe</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>                                     | II   |

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· <b>14.5 Umweltgefahren:</b>	
· <b>Marine pollutant:</b>	Nein
· <b>14.6 Besondere Vorsichtsmaßnahmen für den Verwender</b>	Achtung: Entzündbare flüssige Stoffe
· <b>Kemler-Zahl:</b>	33
· <b>EMS-Nummer:</b>	F-E, <u>S-E</u>
· <b>14.7 Massengutbeförderung gemäß Anhang II des MARPOL-Übereinkommens 73/78 und gemäß IBC-Code</b>	Nicht anwendbar.
· <b>Transport/weitere Angaben:</b>	
-----	
· <b>ADR</b>	
· <b>Begrenzte Menge (LQ)</b>	1L
· <b>Freigestellte Mengen (EQ)</b>	Code: E2 Höchste Nettomenge je Innenverpackung: 30 ml Höchste Nettomenge je Außenverpackung: 500 ml
· <b>Beförderungskategorie</b>	2
· <b>Tunnelbeschränkungscode</b>	D/E
-----	
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>UN "Model Regulation":</b>	UN1993, ENTZÜNDBARER FLÜSSIGER STOFF, N.A.G. (METHYLMETHACRYLAT, MONOMER, STABILISIERT), 3, II

### 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.
  - **Nationale Vorschriften:**
  - **Technische Anleitung Luft:**
- | Klasse | Anteil in % |
|--------|-------------|
| NK     | 4,0         |
- **Wassergefährdungsklasse: WGK 1 (Selbsteinstufung):** schwach wassergefährdend.
  - **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**  
H225 Flüssigkeit und Dampf leicht entzündbar.

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- H226 Flüssigkeit und Dampf entzündbar.
- H315 Verursacht Hautreizungen.
- H317 Kann allergische Hautreaktionen verursachen.
- H319 Verursacht schwere Augenreizung.
- H332 Gesundheitsschädlich bei Einatmen.
- H335 Kann die Atemwege reizen.
- H361d Kann vermutlich das Kind im Mutterleib schädigen.
- H372 Schädigt die Hörorgane bei längerer oder wiederholter Exposition.

**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)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- Flam. Liq. 2: Flammable liquids, Hazard Category 2
- Flam. Liq. 3: Flammable liquids, Hazard Category 3
- Acute Tox. 4: Acute toxicity, Hazard Category 4
- 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
- Repr. 2: Reproductive toxicity, Hazard Category 2
- STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
- STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1
- STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

DE

**Scheda di dati di sicurezza**  
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### SEZIONE 1: Identificazione della sostanza o della miscela e della società/impresa

· **1.1 Identificatore del prodotto**

· **Denominazione commerciale:** UNICRYL EMBEDDING KIT

· **Articolo numero:** 14660

· **1.2 Usi pertinenti identificati della sostanza o miscela e usi sconsigliati** Non sono disponibili altre informazioni.

· **Utilizzazione della Sostanza / del Preparato** Prodotti chimici per laboratorio

· **1.3 Informazioni sul fornitore della scheda di dati di sicurezza**

· **Produttore/fornitore:**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

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

email: [sgkcck@aol.com](mailto:sgkcck@aol.com)

[www.emsdiasum.com](http://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](http://www.sichim.com)

· **Informazioni fornite da:** Product safety department

· **1.4 Numero telefonico di emergenza:**

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

### SEZIONE 2: Identificazione dei pericoli

· **2.1 Classificazione della sostanza o della miscela**

· **Classificazione secondo il regolamento (CE) n. 1272/2008**



GHS02 fiamma

Flam. Liq. 2 H225 Liquido e vapori facilmente infiammabili.



GHS08 pericolo per la salute

Repr. 2 H361d Sospettato di nuocere al feto.

STOT RE 2 H373 Può provocare danni agli organi uditivi in caso di esposizione prolungata e ripetuta.



GHS07

Skin Irrit. 2 H315 Provoca irritazione cutanea.

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

STOT SE 3 H335 Può irritare le vie respiratorie.

· **2.2 Elementi dell'etichetta**

· **Etichettatura secondo il regolamento (CE) n. 1272/2008**

Il prodotto è classificato ed etichettato conformemente al regolamento CLP.

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· **Pittogrammi di pericolo**

GHS02 GHS07 GHS08

· **Avvertenza Pericolo**· **Componenti pericolosi che ne determinano l'etichettatura:**

metacrilato di metile  
stirene

· **Indicazioni di pericolo**

H225 Liquido e vapori facilmente infiammabili.

H315 Provoca irritazione cutanea.

H317 Può provocare una reazione allergica cutanea.

H361d Sospettato di nuocere al feto.

H335 Può irritare le vie respiratorie.

H373 Può provocare danni agli organi uditivi in caso di esposizione prolungata e ripetuta.

· **Consigli di prudenza**

P210 Tenere lontano da fonti di calore, superfici riscaldate, scintille, fiamme e altre fonti di innesco. Vietato fumare.

P241 Utilizzare impianti elettrici/di ventilazione/d'illuminazione/a prova di esplosione.

P303+P361+P353 IN CASO DI CONTATTO CON LA PELLE (o con i capelli): togliere immediatamente tutti gli indumenti contaminati. Sciagquare la pelle/fare una doccia.

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: 80-62-6 EINECS: 201-297-1	metacrilato di metile ⚠ Flam. Liq. 2, H225; ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	50-100%
CAS: 100-42-5 EINECS: 202-851-5	stirene ⚠ Flam. Liq. 3, H226; ⚠ Repr. 2, H361d; STOT RE 1, H372; ⚠ Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319	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:**

*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.*

· **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 alcuni minuti tenendo le palpebre ben aperte.

· **Ingestione:** Se il dolore persiste consultare il medico.

· **4.2 Principali sintomi ed effetti, sia acuti che ritardati** Non sono disponibili altre informazioni.

· **4.3 Indicazione della 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, sabbia, polvere. Non usare acqua.

· **Mezzi di estinzione inadatti per motivi di sicurezza:** Getti d'acqua

· **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:** Non sono richiesti provvedimenti particolari.

#### **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:** Impedire infiltrazioni nella fognatura/nelle acque superficiali/nelle acque freatiche.

· **6.3 Metodi e materiali per il contenimento e per la bonifica:**

*Raccogliere il liquido con materiale assorbente (sabbia, tripoli, legante di acidi, legante universale, segatura).*

*Smaltimento del materiale contaminato conformemente al punto 13.*

*Provvedere ad una sufficiente areazione.*

*Non dilavare con acqua o detersivi liquidi.*

· **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.*

*Aprire e manipolare i recipienti con cautela.*

*Evitare la formazione di aerosol.*

· **Indicazioni in caso di incendio ed esplosione:**

*Tenere lontano da fonti di calore, non fumare.*

*Proteggere dal calore.*

*Adottare provvedimenti contro cariche elettrostatiche.*

*Tener pronto il respiratore.*

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- **7.2 Condizioni per l'immagazzinamento sicuro, comprese eventuali incompatibilità**
- **Stoccaggio:**
- **Requisiti dei magazzini e dei recipienti:** Conservare in ambiente fresco.
- **Indicazioni sullo stoccaggio misto:** Non necessario.
- **Ulteriori indicazioni relative alle condizioni di immagazzinamento:**  
Mantenere i recipienti ermeticamente chiusi.  
Conservare in luogo fresco e asciutto in fusti ben chiusi.  
Proteggere dal calore e dai raggi diretti del sole.
- **7.3 Usi finali specifici** 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:**

**80-62-6 metacrilato di metile**

TWA Valore a breve termine: 410 mg/m<sup>3</sup>, 100 ppm  
Valore a lungo termine: 205 mg/m<sup>3</sup>, 50 ppm  
sen, A4

VL Valore a breve termine: 100 ppm  
Valore a lungo termine: 50 ppm

**100-42-5 stirene**

TWA Valore a breve termine: 170 mg/m<sup>3</sup>, 40 ppm  
Valore a lungo termine: 85 mg/m<sup>3</sup>, 20 ppm  
A4, IBE

· **Componenti con valori limite biologici:**

**100-42-5 stirene**

IBE 400 mg/g creatinina  
Campioni: urine  
Momento del prelievo: a fine turno  
Indicatore biologico: acido mandelico + acido fenilgliosilico

0,2 mg/l

Campioni: sangue venoso  
Momento del prelievo: a fine turno  
Indicatore biologico: stirene

- **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 la pelle.
- 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.

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**· 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.*

**· 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:** Giallo**· Odore:** Pungente**· 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:** 101 °C**· Punto di infiammabilità:** 10 °C**· Infiammabilità (solido, gassoso):** Non applicabile.**· Temperatura di accensione:** 430 °C**· Temperatura di decomposizione:** Non definito.**· Autoaccensione:** Prodotto non autoinfiammabile.**· Pericolo di esplosione:** Prodotto non è esplosivo, è tuttavia possibile la formazione di miscele di vapori/aria esplosive.**· Limiti di infiammabilità:****Inferiore:** 2,1 Vol %**Superiore:** 12,5 Vol %**· Tensione di vapore a 20 °C:** 47 hPa

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· <b>Densità:</b>	Non definito.
· <b>Densità relativa</b>	Non definito.
· <b>Densità del vapore</b>	Non definito.
· <b>Velocità di evaporazione</b>	Non definito.
· <b>Solubilità in/Miscibilità con acqua:</b>	Poco e/o non miscibile.
· <b>Coefficiente di distribuzione (n-Octanol/acqua):</b>	Non definito.
· <b>Viscosità:</b>	
<b>Dinamica:</b>	Non definito.
<b>Cinematica:</b>	Non definito.
· <b>Tenore del solvente:</b>	
<b>Solventi organici:</b>	4,0 %
<b>VOC (CE)</b>	4,00 %
· <b>9.2 Altre informazioni</b>	Non sono disponibili altre informazioni.

### SEZIONE 10: Stabilità e reattività

- **10.1 Reattività**
- **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**

· **Valori LD/LC50 rilevanti per la classificazione:**

**80-62-6 metacrilato di metile**

Orale	LD50	7872 mg/kg (rat)
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**100-42-5 stirene**

Orale	LD50	5000 mg/kg (rat)
Per inalazione	LC50/4 h	24 mg/l (rat)

- **Irritabilità primaria:**
- **Corrosione/irritazione cutanea** Irrita la pelle e le mucose.
- **Lesioni oculari gravi/irritazioni oculari gravi** Non irritante.
- **Sensibilizzazione respiratoria o cutanea** Può provocare sensibilizzazione a contatto con la pelle.
- **Ulteriori dati tossicologici:**

Il prodotto, in base al metodo di calcolo della direttiva generale della Comunità sulla classificazione dei preparati nella sua ultima versione valida, presenta i seguenti rischi:

Irritante

- **Effetti CMR (cancerogenicità, mutagenicità e tossicità per la riproduzione)**  
Repr. 2

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**Scheda di dati di sicurezza**  
ai sensi del regolamento 1907/2006/CE, Articolo 31

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### SEZIONE 12: Informazioni ecologiche

- **12.1 Tossicità**
- **Tossicità acquatica:** Non sono disponibili altre informazioni.
- **12.2 Persistenza e degradabilità** Non sono disponibili altre informazioni.
- **12.3 Potenziale di bioaccumulo** Non sono disponibili altre informazioni.
- **12.4 Mobilità nel suolo** Non sono disponibili altre informazioni.
- **Ulteriori indicazioni in materia ambientale:**
- **Ulteriori indicazioni:**  
Pericolosità per le acque classe 1 (D) (Autoclassificazione): poco pericoloso  
Non immettere nelle acque freatiche, nei corsi d'acqua o nelle fognature non diluito o in grandi quantità.
- **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

· <b>14.1 Numero ONU</b> · <b>ADR, IMDG, IATA</b>	UN1993
· <b>14.2 Nome di spedizione dell'ONU</b> · <b>ADR</b> · <b>IMDG, IATA</b>	1993 LIQUIDO INFIAMMABILE, N.A.S. (METACRILATO DI METILE MONOMERO STABILIZZATO) FLAMMABLE LIQUID, N.O.S. (METHYL METHACRYLATE MONOMER, STABILIZED)
· <b>14.3 Classi di pericolo connesso al trasporto</b> · <b>ADR, IMDG, IATA</b>	
	
· <b>Classe</b> · <b>Etichetta</b>	3 Liquidi infiammabili 3
· <b>14.4 Gruppo di imballaggio</b> · <b>ADR, IMDG, IATA</b>	II
· <b>14.5 Pericoli per l'ambiente:</b> · <b>Marine pollutant:</b>	No
· <b>14.6 Precauzioni speciali per gli utilizzatori</b> · <b>Numero Kemler:</b>	Attenzione: Liquidi infiammabili 33

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**Scheda di dati di sicurezza**  
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· <b>Numero EMS:</b>	F-E,S-E
· <b>14.7 Trasporto di rinfuse secondo l'allegato II di MARPOL 73/78 ed il codice IBC</b>	Non applicabile.
· <b>Trasporto/ulteriori indicazioni:</b>	
· <b>ADR</b>	
· <b>Quantità limitate (LQ)</b>	1L
· <b>Quantità esenti (EQ)</b>	Codice: E2 Quantità massima netta per imballaggio interno: 30 ml Quantità massima netta per imballaggio esterno: 500 ml
· <b>Categoria di trasporto</b>	2
· <b>Codice di restrizione in galleria</b>	D/E
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>UN "Model Regulation":</b>	UN1993, LIQUIDO INFIAMMABILE, N.A.S. (METACRILATO DI METILE MONOMERO STABILIZZATO), 3, II

### SEZIONE 15: Informazioni sulla regolamentazione

· **15.1 Norme e legislazione 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.

· **Disposizioni nazionali:**

· **Istruzione tecnica aria:**

Classe	quota in %
NC	4,0

· **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.

· **Frasi rilevanti**

H225 Liquido e vapori facilmente infiammabili.

H226 Liquido e vapori infiammabili.

H315 Provoca irritazione cutanea.

H317 Può provocare una reazione allergica cutanea.

H319 Provoca grave irritazione oculare.

H332 Nocivo se inalato.

H335 Può irritare le vie respiratorie.

H361d Sospettato di nuocere al feto.

H372 Provoca danni agli organi uditivi in caso di esposizione prolungata e ripetuta.

· **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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**Scheda di dati di sicurezza**  
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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)*  
*LC50: Lethal concentration, 50 percent*  
*LD50: Lethal dose, 50 percent*  
*Flam. Liq. 2: Flammable liquids, Hazard Category 2*  
*Flam. Liq. 3: Flammable liquids, Hazard Category 3*  
*Acute Tox. 4: Acute toxicity, Hazard Category 4*  
*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*  
*Repr. 2: Reproductive toxicity, Hazard Category 2*  
*STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3*  
*STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1*  
*STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2*

IT

# 안전지침서

## 제31조의 1907/2006/EC에 따라

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### 1 화학제품과 회사에 관한 정보

- 제품 식별자
- 제품명: UNICRYL EMBEDDING KIT
- 상품번호: 14660
- 해당 순물질이나 혼합물의 관련 하위용도 및 사용금지용도 추가적인 정보가 존재하지 않습니다.
- 제품의 권고 용도와 사용상의 제한: 실험실 화학품
- 안전데이터표(Safety Data Sheet)내 공급업체 관련 상세 정보
- 제조자/수입자/유통업자 정보:  
 Electron Microscopy Sciences  
 1560 Industry Road  
 USA-Hatfield, PA 19440  
 Tel: 215-412-8400 Fax: 215-412-8450  
 email: sgkcck@aol.com  
 www.emsdiasum.com
- Samchang Commercial Co., Ltd.  
 Yeo Eui Do  
 PO Box 1110  
 Seoul, Korea  
 Tel: 82 2 703 3040  
 Fax: 82 2 717 3298
- 추가적인 정보 획득 가능: Product safety department
- 비상연락 전화번호:  
 ChemTrec 1-800-424-9300 Contract CCN7661  
 1-703-527-3887

### 2 유해성.위험성

- 순물질 또는 혼합물의 분류



화염

인화성 액체 구분2                      H225 고인화성 액체 및 증기



건강에 위험

생식 독성 구분2                      H361 태아 또는 생식능력에 손상을 일으킬 것으로 의심됨  
 표적장기-반복노출 구분2 H373 청각기관 을 장시간 또는 반복된 노출로 인하여 손상시킬 수 있다.



피부 부식성/자극성 구분2 H315 피부에 자극을 일으킴  
 피부과민성 구분1                      H317 알레르기성 피부 반응을 일으킬 수 있음  
 표적장기-1회노출 구분3 H335 호흡기계 자극을 일으킬 수 있음

- 라벨표기 요소
  - GHS 라벨 요소
- 본 제품은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.

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· **그림문자**



GHS02    GHS07    GHS08

· **신호어 위험**

· **상표상에명확히위험성이표시된성분:**

methyl methacrylate  
STYRENE

· **유해.위험 문구**

고인화성 액체 및 증기  
피부에 자극을 일으킴  
알레르기성 피부 반응을 일으킬 수 있음  
태아 또는 생식능력에 손상을 일으킬 것으로 의심됨  
호흡기계 자극을 일으킬 수 있음  
청각기관을 장시간 또는 반복된 노출로 인하여 손상시킬 수 있다.

· **예방조치 문구**

열·스파크·화염·고열로부터 멀리하시오 - 금연  
폭발 방지용 전기·환기·조명·장비를 사용하시오.  
피부(모발)에 접촉 시: 모든 오염된 옷을 즉시 벗으시오 피부를 물/샤워로 헹구시오.  
(라벨 참조) 처치를 하시오.  
잠금장치가 있는 저장장소에 저장하시오.  
현지/지역/국가/국제 규정에 따라서 내용물/용기 노출

· **기타 유해성**

· PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과  
· PBT(잔류성, 생물농축성, 독성 물질): 해당사항 없음.  
· vPvB(고 잔류성, 고 생물농축성 물질): 해당사항 없음.

### 3 구성성분의 명칭 및 함유량

· **화학적 특성: 혼합물**

· **설명:** 무해한 첨가물이 함유된 아래에 열거된 물질로 만들어진 혼합물.

· **위험 요소:**

80-62-6	methyl methacrylate ⚠ 인화성 액체    구분2, H225; ⚠ 피부 부식성/자극성    구분2, H315; 피부과민성 구분1, H317; 표적장기-1회노출    구분3, H335	50-100%
100-42-5	STYRENE ⚠ 인화성 액체    구분3, H226; ⚠ 생식 독성    구분2, H361; 표적장기-반복노출    구 분1, H372; ⚠ 급성 독성(흡입)    구분4, H332; 피부 부식성/자극성    구분2, H315; 심 한 눈 손상/자극성    구분2, H319	2.5-10%

### 4 응급조치 요령

· **응급조치요령 내용**

· **일반적 정보:**

중독 증상은 몇 시간이 지난 뒤에 발생할 수 있다. 따라서 사고가 발생한 후에 적어도 48 시간동안은 의료진의 관찰을 받아야 한다.

· **흡입했을 때:**

신선한 공기를 쐬고 나서 반드시 의료진의 도움을 구한다.

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- 환자가 의식을 잃었을 경우에는 안전한 자세에서 환자를 운반한다.
- **피부에 접촉했을 때:** 즉시물과비누로씻고잘행군다.
- **눈에 들어갔을 때:** 흐르는 물에 눈을 몇분동안 씻어낸다.
- **먹었을 때:** 증상이 지속될 경우에는 의사와 상 담 한 다.
- **기타 의사의 주의사항:**
- **가장 중요한 급·만성 증상 및 영향** 추가적인 정보가 존재하지 않습니다.
- **즉각적인 의료처치 및 특별치료가 필요함을 시사하는 징후** 추가적인 정보가 존재하지 않습니다.

### 5 폭발.화재시 대처방법

- **소화제**
- **적절한 소화제:** 이 산 화 탄 소, 모 래, 석 회 가 루를 사용하고, 물 을 사 용 하 지 않 는 다.
- **부적절한 소화제:** 플제트용 물
- **본 화학물질이나 혼합물에서 발생하는 특별 유해성** 추가적인 정보가 존재하지 않습니다.
- **소방관에 대한 권고사항**
- **화재 진압 시 착용할 보호구 및 예방조치:** 특 별 한 조 치 가 필 요 없 음.

### 6 누출 사고 시 대처방법

- **개인적 예방조치, 보호장비 및 응급처치 절차** 안 전 장 비 착 용 하 고, 무 방 비 의 사 람 은 격 리 시 킨다.
- **환경 관련 예방조치:** 하수도망/해수면위의물/지하수로도달하지않게한다.
- **밀폐 및 정화 방법과 소재:**  
액체가 혼합된 물질 (모래, 규 조 토, 산 성 결 합 물, 일 반 결 합 물, 톱 밥)에 흡입되도록 한다.  
항목 13에 따라 오염된 물질을 쓰레기로 처분한다.  
충분한 환기가 되도록 한다.  
물 이 나 묽 은 세 척 제 로 씻 어 내 지 마 십 시 오
- **타 섹션 참조**  
안 전 관 리 에 대 한 정 보 는 제 7 장 을 참 고 하 시 오.  
개 인 보 호 장 비 에 대 한 정 보 는 제 8 장 을 참 고 하 시 오.  
쓰 레 기 처 리 에 대 한 정 보 는 제 13 장 을 참 고 하 시 오.

### 7 취급 및 저장방법

- **취급:**
- **안전 취급을 위한 예방조치**  
작업장에서는통풍이잘되고/습기제거가잘되게주의한다.  
조심스럽게용기를 개봉하거나취급한다.  
연무질이형성되는것을피한다.
- **화재 및 폭발 사고 예방대책에 관한 정보:**  
발 화 요 소 는 멀 리 둔 다.금 연.  
열로부터보호한다.  
정 전 기 의 충 전 으로부터 보호한다.  
호흡보호장비를항상비치한다.
- **혼합위험성 등 안전 저장 조건**
- **보관:**
- **안전한 저장 방법:** 차 가 운 장 소 에 보 관 한 다.
- **하나의 공동 보관 시설에 대한 보관 관련 정보:** 필 요 없 음
- **보 관 조 건 에 관 한 추 가 적 인 정 보:**  
용기를새지않게밀폐한채보관한다.  
밀폐된용기속에서늘 하고건 조 하 게 보 관 한 다.  
열이나직사광선으로부터보호한다.

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· **구체적 최종 사용자** 추가적인 정보가 존재하지 않습니다.

### 8 노출방지 및 개인보호구

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

· **통제 변수**

· **화학물질의 노출기준, 생물학적 노출기준 등:**

**80-62-6 methyl methacrylate**

TLV (ROK)	단기간의값: 410 mg/m <sup>3</sup> , 100 ppm 장기간의값: 205 mg/m <sup>3</sup> , 50 ppm
IOELV (EU)	단기간의값: 100 ppm 장기간의값: 50 ppm
PEL (USA)	장기간의값: 410 mg/m <sup>3</sup> , 100 ppm
REL (USA)	장기간의값: 410 mg/m <sup>3</sup> , 100 ppm
TLV (USA)	단기간의값: 410 mg/m <sup>3</sup> , 100 ppm 장기간의값: 205 mg/m <sup>3</sup> , 50 ppm (SEN) NIC-DSEN

**100-42-5 STYRENE**

TLV (ROK)	단기간의값: 170 mg/m <sup>3</sup> , 40 ppm 장기간의값: 85 mg/m <sup>3</sup> , 20 ppm Skin
PEL (USA)	장기간의값: 100 ppm 최고노출기준: 200; 600* ppm *5-min peak in any 3 hrs
REL (USA)	단기간의값: 425 mg/m <sup>3</sup> , 100 ppm 장기간의값: 215 mg/m <sup>3</sup> , 50 ppm
TLV (USA)	단기간의값: 170 mg/m <sup>3</sup> , 40 ppm 장기간의값: 85 mg/m <sup>3</sup> , 20 ppm BEI

· **추 가 정 보:** 제 조 할 당 시 에 유 효 한 목 록 을 기 초 로 사 용 했 다.

· **노출 통제**

· **개인 보호구**

· **일반적보호조치및위생조치:**

- 식료품, 음료수와 사료로부터 멀리떨어뜨려 놓는다.
- 더러워지거나 음료수가 묻은 옷은 즉시 탈의한다.
- 휴식 전 이 나 작업이 끝날때마다 손을 씻는다.
- 방호복은 따로보관한다.
- 피부와의 접촉을 피한다.
- 눈과 피부와의 접촉은 피한다.

· **호흡기 보호:**

· 단 시간 또는 경미한 오염의 경우에는 호흡여과기를 사용한다. 심각한 또는 장기간 노출시에는 호흡보호장비를 사용한다.

· **손 보호:**



보호용 장갑

장갑재질은제품 / 원료 / 조제를투과시키지않아야하고, 내구성이있어야한다.

(5 쪽에계속)

# 안전지침서

## 제31조의 1907/2006/EC에 따라

기압점: 2015.07.18

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**제품명: UNICRYL EMBEDDING KIT**

(4 쪽부터계속)

테스트를 하지 않았기 때문에 제품 / 조제 / 화학 혼합 물에 적합한 장갑재질에 대한 추천이 없다.  
투과 시간, 침투율과 저하를 고려해서 장갑 재료를 선택한다.

**· 장갑의 재료**

적합한 장갑의 선정은 재질 차이뿐만 아니라 품질 기준의 차이도 고려하여 이루어져야 하고 제조업종에 따라서도 다르게 선정되어야 한다. 제품은 다양한 재료로부터의 조제로 이루어지는 것이기 때문에, 장갑재질의 안정성은 사전에 예측되어질 수 있는 것이 아니고, 반드시 사용 전에 (그 안전성이) 체크 되어져야 한다.

· **장갑 재료의 투과 시간** 정확한 관통 시간은 보호 장갑 제조자에 의하여 인지되고, 준수 되어야 한다.

· **눈 보호:**



꼭 조이는 보안경

### 9 물리화학적 특성

**· 기본 물리 및 화학적 특성에 대한 정보**

· **일반정보**

· **외형**

· 물리적 상태:	액체
· 색:	노랑
· 냄새:	찌르는 듯한
· 후각역치	알맞지 않다.

· pH: 알맞지 않다.

· **상태변화**

· 녹는점/어는점:	맞지 않는다
· 초기 끓는점과 끓는점 범위:	101 °C

· 인화점: 10 °C

· 인화성(고체, 기체): 해당 사항 없음.

· 점화 온도: 430 °C

· 분해 온도: 알맞지 않다.

· 자기점화: 이 제품은 자연발화성이 없다.

· 폭발 위험: 이 제품은 폭발 위험성이 없지만, 폭발 가능성이 있는 증기 화합물 / 공기 화합물의 형성 가능성이 있다.

· **인화 또는 폭발 범위의 상한/하한**

· 아래로:	2.1 Vol %
· 위로:	12.5 Vol %

· 증기압 의 경우 20 °C: 47 hPa

· 밀도: 맞지 않는다.

· 비중: 알맞지 않다.

· 증기 밀도: 알맞지 않다.

· 증발 속도: 알맞지 않다.

· **용해도:**

· 물: 각각의 경우에 따라서는 거의 혼합할 수 없는

· n 옥탄올/물 분배계수: 알맞지 않다.

(6 쪽에계속)

# 안전지침서

## 제31조의 1907/2006/EC에 따라

기압점: 2015.07.18

개정: 2015.07.18

**제품명: UNICRYL EMBEDDING KIT**

(5 쪽부터계속)

<b>· 점도:</b>	
<b>· 역확성:</b>	알맞지않다.
<b>· 동점성:</b>	알맞지않다.
<b>· 용매내용물</b>	
<b>· 유기용매:</b>	4.0 %
<b>· VOC (EU)</b>	4.00 %
<b>· 기타 정보</b>	추가적인 정보가 존재하지 않습니다.

### 10 안정성 및 반응성

- 반응성
- 화학적 안정성
- 화학적 안정성 및 유해 반응의 가능성 / 피해야 할 조건: 규정에따라사용할경우해체는없다
- 유해반응 가능성 위험한반응으로는알려지지않았다.
- 피해야 할 조건 추가적인 정보가 존재하지 않습니다.
- 혼합 금지 물질: 추가적인 정보가 존재하지 않습니다.
- 유해분해물질: 위험성있는분해물들은알려지지않았다.

### 11 독성에 관한 정보

- 독성학적 영향에 대한 정보
- 급성 독성:

<b>· LD/LC50-수치에 따른 분류:</b>		
<b>80-62-6 methyl methacrylate</b>		
구강의	LD50	7872 mg/kg (rat)
<b>100-42-5 STYRENE</b>		
구강의	LD50	5000 mg/kg (rat)
흡입의	LC50/4 h	24 mg/l (rat)

- 일차적 자극 효과:
- 피부 부식성 또는 자극성: 피부와점막을자극한다.
- 심한 눈 손상 또는 자극성: 무자극.
- 감각화: 피부접촉을통하여감각화가능성이있다.
- 추가적인 독성에 관한 정보:  
이제품은유럽공동체의공동분류원칙의합법적인절차에근거하여최근에발효된원고에서아래위험들의사전준비에대하여제시하고있다.  
자극적인
- 다음 종류의 잠재적인 효과에 대한 정보
- CMR-효과 (암 유발, 돌연변이성 그리고 생식 독성)  
생식 독성 구분2

### 12 환경에 미치는 영향

- 독성
- 수생독성: 추가적인 정보가 존재하지 않습니다.
- 지속성 및 분해성 추가적인 정보가 존재하지 않습니다.
- 환경 시스템에서의 행동:
- 생물농축 잠재성 추가적인 정보가 존재하지 않습니다.
- 토양내 이동성 추가적인 정보가 존재하지 않습니다.

(7 쪽에계속)

# 안전지침서

## 제31조의 1907/2006/EC에 따라

기압점: 2015.07.18

개정: 2015.07.18

**제품명: UNICRYL EMBEDDING KIT**


(6 쪽부터계속)

- **추가적인 생태학 정보:**
- **일반 특징:**  
수질오염등급 1 (자체등급분류): 약하게수질오염이된  
희석시키지않은채대량으로지하수나, 하천으로그리고 하수도망에도달하지않게한다.
- **PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과**
- **PBT(잔류성, 생물농축성, 독성 물질):** 해당사항 없음.
- **vPvB(고 잔류성, 고 생물농축성 물질):** 해당사항 없음.
- **기타 부작용** 추가적인 정보가 존재하지 않습니다.

### 13 폐기시 주의사항

- **폐기물 처리 방법**
- **권고:** 생활쓰레기와함께처리되어서는안된다. 하수도망으로유입되어서는안된다.
- **비위생적 포장:**
- **권고:** 당국의지침에입각한쓰레기처리.

### 14 운송에 필요한 정보

· 유엔 번호 · ADR, IMDG, IATA	UN1993
· UN 적정 선적명 · ADR · IMDG, IATA	1993 FLAMMABLE LIQUID, N.O.S. (METHYL METHACRYLATE MONOMER, STABILIZED) FLAMMABLE LIQUID, N.O.S. (METHYL METHACRYLATE MONOMER, STABILIZED)
· 교통 위험 클래스 · ADR, IMDG, IATA	
	
· 등급 · 위험물 라벨	3 발화성용액 3
· 용기등급 · ADR, IMDG, IATA	II
· 환경적 유해물질: · 해양오염물질:	아니오
· 이용자 특별 예방조치 · 위험 코드: · EMS-번호:	경고: 발화성용액 33 F-E,S-E
· MARPOL73/78(선박으로부터의 해양오염방지협약) 부속서2 및 IBC Code(국제선적화물코드)에 따른 벌크(bulk) 운송	해당사항 없음.

(8 쪽에계속)

# 안전지침서

## 제31조의 1907/2006/EC에 따라

기압점: 2015.07.18

개정: 2015.07.18

**제품명: UNICRYL EMBEDDING KIT**

(7 쪽부터계속)

**· 운 송/추가 정보:**

· **ADR**  
 · **한정 수량 (LQ)** 1L  
 · **Excepted quantities (EQ)** Code: E2  
 Maximum net quantity per inner packaging: 30 ml  
 Maximum net quantity per outer packaging: 500 ml

· **운송 구분**  
 · **터널 제한 코드** D/E

· **IMDG**  
 · **Limited quantities (LQ)** 1L  
 · **Excepted quantities (EQ)** Code: E2  
 Maximum net quantity per inner packaging: 30 ml  
 Maximum net quantity per outer packaging: 500 ml

· **UN "모범 규제":** UN1993, FLAMMABLE LIQUID, N.O.S. (METHYL METHACRYLATE MONOMER, STABILIZED), 3, II

### 15 법적 규제현황

**· 해당 순물질 또는 혼합물에 대한 안전, 보건 및 환경 규제/법률**

· <b>Korean Existing Chemical Inventory</b>		
80-62-6	methyl methacrylate	KE-25050
100-42-5	STYRENE	KE-35342

- **GHS 라벨 요소**  
 본 제품은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.
- **위험 도표**



- **표지어 위험**
- **상표상에명확히위험성이표시된성분:**  
 methyl methacrylate  
 STYRENE
- **위험 문구**  
 고인화성 액체 및 증기  
 피부에 자극을 일으킴  
 알레르기성 피부 반응을 일으킬 수 있음  
 태아 또는 생식능력에 손상을 일으킬 것으로 의심됨  
 호흡기계 자극을 일으킬 수 있음  
 청각기관을 장시간 또는 반복된 노출로 인하여 손상시킬 수 있다.
- **주의 문구**  
 열·스파크·화염·고열로부터 멀리하시오 – 금연  
 폭발 방지용 전기·환기·조명·장비를 사용하시오.  
 피부(모발)에 접촉 시: 모든 오염된 옷을 즉시 벗으시오 피부를 물/샤워로 행구시오.  
 (라벨 참조) 처치를 하시오.  
 잠금장치가 있는 저장장소에 저장하시오.  
 현지/지역/국가/국제 규정에 따라서 내용물/용기 노출

(9 쪽에계속)

# 안전지침서

## 제31조의 1907/2006/EC에 따라

기압점: 2015.07.18

개정: 2015.07.18

**제품명: UNICRYL EMBEDDING KIT**· **화학물질 안전성 평가:** 화학물질 안전성 평가가 수행되지 않음

(8 쪽부터계속)

### 16 그 밖의 참고사항

이보고는우리지식에대한오늘날의상태에대하여평가하고있다, 하지만이보고서는생산특성에관한보증은  
기술하지않았으며계약적인법률관계에기반을두고있지도않다

- **최초 작성일자:** 2015.07.18
- **개정 횟수 및 최종 개정일자:** 1 / 2015.07.18
- **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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

인화성 액체 구분2: Flammable liquids, Hazard Category 2

인화성 액체 구분3: Flammable liquids, Hazard Category 3

급성 독성(흡입) 구분4: Acute toxicity, Hazard Category 4

피부 부식성/자극성 구분2: Skin corrosion/irritation, Hazard Category 2

심한 눈 손상/자극성 구분2: Serious eye damage/eye irritation, Hazard Category 2

피부과민성 구분1: Sensitisation - Skin, Hazard Category 1

생식 독성 구분2: Reproductive toxicity, Hazard Category 2

표적장기-1회노출 구분3: Specific target organ toxicity - Single exposure, Hazard Category 3

표적장기-반복노출 구분1: Specific target organ toxicity - Repeated exposure, Hazard Category 1

표적장기-반복노출 구분2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

KR

# Ficha de dados de segurança

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

data da impressão 18.07.2015

Revisão: 18.07.2015

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

- **1.1 Identificador do produto**
- **Nome comercial:** UNICRYL EMBEDDING KIT
- **Código do produto:** 14660
- **1.2 Utilizações identificadas relevantes da substância ou mistura e utilizações desaconselhadas**  
Não existe mais nenhuma informação relevante disponível.
- **Utilização da substância / da preparação** Químicos de laboratório
- **1.3 Identificação do fornecedor da ficha de dados de segurança**
- **Fabricante/fornecedor:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Entidade para obtenção de informações adicionais:** Product safety department
- **1.4 Número de telefone de emergência:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## SECÇÃO 2: Identificação dos perigos

- **2.1 Classificação da substância ou mistura**
- **Classificação em conformidade com o Regulamento (CE) n.º 1272/2008**



GHS02 chama

Flam. Liq. 2 H225 Líquido e vapor facilmente inflamáveis.



GHS08 perigo para a saúde

Repr. 2 H361d Suspeito de afectar o nascituro.

STOT RE 2 H373 Pode afectar os órgãos auditivos após exposição prolongada ou repetida.



GHS07

Skin Irrit. 2 H315 Provoca irritação cutânea.

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

STOT SE 3 H335 Pode provocar irritação das vias respiratórias.

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



GHS02



GHS07



GHS08

(continuação na página 2)



# Ficha de dados de segurança

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

data da impressão 18.07.2015

Revisão: 18.07.2015

Nome comercial: UNICRYL EMBEDDING KIT

(continuação da página 1)

- **Palavra-sinal Perigo**

- **Componentes determinantes para os perigos constantes do rótulo:**

metacrilato de metilo  
estireno

- **Advertências de perigo**

H225 Líquido e vapor facilmente inflamáveis.

H315 Provoca irritação cutânea.

H317 Pode provocar uma reacção alérgica cutânea.

H361d Suspeito de afectar o nascituro.

H335 Pode provocar irritação das vias respiratórias.

H373 Pode afectar os órgãos auditivos após exposição prolongada ou repetida.

- **Recomendações de prudência**

P210 Manter afastado do calor, superfícies quentes, faíscas, chamas abertas e outras fontes de ignição. Não fumar.

P241 Utilizar equipamento eléctrico/de ventilação/de iluminação/à prova de explosão.

P303+P361+P353 SE ENTRAR EM CONTACTO COM A PELE (ou o cabelo): retirar imediatamente toda a roupa contaminada. Enxaguar a pele com água/tomar um duche.

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: 80-62-6 EINECS: 201-297-1	metacrilato de metilo Flam. Líq. 2, H225; Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	50-100%
CAS: 100-42-5 EINECS: 202-851-5	estireno Flam. Líq. 3, H226; Repr. 2, H361d; STOT RE 1, H372; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319	2,5-10%

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

### SECÇÃO 4: Primeiros socorros

- **4.1 Descrição das medidas de primeiros socorros**

- **Indicações gerais:**

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 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.

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- **Em caso de ingestão:** Se os sintomas persistirem, consultar o médico.
- **4.2 Sintomas e efeitos mais importantes, tanto agudos como retardados**  
 Não existe mais nenhuma informação relevante disponível.
- **4.3 Indicações sobre cuidados médicos urgentes e tratamentos especiais necessários**  
 Não existe mais nenhuma informação relevante disponível.

### **SECÇÃO 5: Medidas de combate a incêndios**

- **5.1 Meios de extinção**
- **Meios adequados de extinção:** CO<sub>2</sub>, areia, pó extintor. Não usar água.
- **Meios de extinção que não devam ser utilizados por razões de segurança:** Água em jacto
- **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:** Não são necessárias medidas especiais.

### **SECÇÃO 6: Medidas a tomar em caso de fugas accidentais**

- **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:** Evitar que penetre na canalização / águas superficiais / águas subterrâneas.
- **6.3 Métodos e materiais de confinamento e limpeza:**  
 Recolher com produtos que absorvam líquidos (areia, seixos, absorventes universais, serradura ).  
 Eliminar residualmente as substâncias contaminadas como um resíduo segundo o Ponto 13.  
 Assegurar uma ventilação adequada.  
 Não limpar com água ou produtos de limpeza aquosos.
- **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.

### **SECÇÃO 7: Manuseamento e armazenagem**

- **7.1 Precauções para um manuseamento seguro**  
 Assegurar uma boa ventilação / exaustão no local de trabalho.  
 Abrir e manusear o recipiente com cuidado  
 Evitar a formação de aerossóis.
- **Precauções para prevenir incêndios e explosões:**  
 Manter afastado de fontes de ignição - não fumar.  
 Proteger do calor.  
 Proteger contra descargas electrostáticas.  
 Manter uma máscara de respiração sempre preparada.
- **7.2 Condições de armazenagem segura, incluindo eventuais incompatibilidades**
- **Armazenagem:**
- **Requisitos para espaços ou contentores para armazenagem:** Armazenar num local fresco.
- **Avisos para armazenagem conjunta:** Não necessário.
- **Outros avisos sobre as condições de armazenagem:**  
 Manter o recipiente hermeticamente fechado.  
 Armazenar em recipientes bem fechados, em local fresco e seco.  
 Proteger do calor e da radiação directa do sol.

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· 7.3 Utilizações finais específicas 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:

#### 80-62-6 metacrilato de metilo

VLE	Valor para exposição curta: 100 ppm Valor para exposição longa: 50 ppm S;A4;Irrit. ocular, do TRS;efeitos na massa corp.
-----	--

#### 100-42-5 estireno

VLE	Valor para exposição curta: 40 ppm Valor para exposição longa: 20 ppm A4;IBE;SCN; irrit. do TRS; neuropatia periférica
-----	--

· 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 a pele.

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 físicas e químicas

· **9.1 Informações sobre propriedades físicas e químicas de base**· **Informações gerais**· **Aspecto:**

· <b>Forma:</b>	Líquido
· <b>Cor:</b>	Amarelo
· <b>Odor:</b>	Agudo
· <b>Limiar olfactivo:</b>	Não classificado.

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

· <b>Ponto / intervalo de fusão:</b>	Não classificado.
· <b>Ponto / intervalo de ebulição:</b>	101 °C

· **Ponto de inflamação:** 10 °C· **Inflamabilidade (sólido, gás):** Não aplicável.· **Temperatura de ignição:** 430 °C· **Temperatura de decomposição:** Não classificado.· **Auto-inflamabilidade:** O produto não é auto-inflamável.· **Perigos de explosão:** O produto não é explosivo. Contudo, é possível a formação de misturas explosivas ar/vapor.· **Limites de explosão:**

· <b>Inferior:</b>	2,1 Vol %
· <b>Superior:</b>	12,5 Vol %

· **Pressão de vapor em 20 °C:** 47 hPa· **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:**

· <b>Dinâmico:</b>	Não classificado.
· <b>Cinemático:</b>	Não classificado.

· **Percentagem de solvente:**

· <b>Solventes orgânicos:</b>	4,0 %
· <b>VOC (UE)</b>	4,00 %

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## · 9.2 Outras informações

Não existe mais nenhuma informação relevante disponível.

## SECÇÃO 10: Estabilidade e reactividade

- 10.1 Reactividade
- 10.2 Estabilidade química
- **Decomposição térmica / condições a evitar:** Não existe decomposição se usado de acordo com as especificações.
- 10.3 Possibilidade de reacções perigosas Não se conhecem reacções 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

## · Valores LD/LC50 relevantes para a classificação:

**80-62-6 metacrilato de metilo**

por via oral LD50 7872 mg/kg (rat)

**100-42-5 estireno**

por via oral LD50 5000 mg/kg (rat)

por inalação LC50/4 h 24 mg/l (rat)

- **Efeito de irritabilidade primário:**
- **Corrosão/irritação cutânea** Irritante para a pele e as mucosas.
- **Lesões oculares graves/irritação ocular** Nenhum efeito irritante.
- **Sensibilização respiratória ou cutânea** É possível sensibilização através do contacto com a pele.
- **Avisos adicionais de toxicologia:**  
O produto apresenta os seguintes perigos com base no método de cálculo utilizado na Directiva comunitária de classificação de preparações, nos termos da última versão em vigor.  
Irritante
- **Efeitos CMR (carcinogenicidade, mutagenicidade e efeitos tóxicos na reprodução)**  
Repr. 2

## SECÇÃO 12: Informação ecológica

- 12.1 Toxicidade
- **Toxicidade aquática:** Não existe mais nenhuma informação relevante disponível.
- 12.2 Persistência e degradabilidade Não existe mais nenhuma informação relevante disponível.
- 12.3 Potencial de bioacumulação Não existe mais nenhuma informação relevante disponível.
- 12.4 Mobilidade no solo Não existe mais nenhuma informação relevante disponível.
- **Outras indicações ecológicas:**
- **Indicações gerais:**  
Classe de perigo para a água 1 (D) (auto-classificação): pouco perigoso para a água  
Não deixar chegar substâncias concentradas, ou seja quantidades grandes, às águas subterrâneas, aos cursos de água ou à canalização.
- 12.5 Resultados da avaliação PBT e mPmB
- **PBT:** Não aplicável.
- **mPmB:** Não aplicável.

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· 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**

- |  |   |
|--|---|
| · 14.1 N° UN   | UN1993  |
| · ADR, IMDG, IATA  |   |
| · 14.2 Designação oficial de transporte da ONU   | 1993 LÍQUIDO INFLAMÁVEL, N.S.A. (METACRILATO DE METILO MONÓMERO ESTABILIZADO) |
| · ADR  | FLAMMABLE LIQUID, N.O.S. (METHYL METHACRYLATE MONOMER, STABILIZED)            |
| · IMDG, IATA   |   |
| · 14.3 Classes de perigo para efeitos de transporte  |   |
| · ADR, IMDG, IATA  |   |
|                 |   |
| · Classe   | 3 Líquidos inflamáveis  |
| · Rótulo   | 3   |
| · 14.4 Tipo de embalagem   |   |
| · ADR, IMDG, IATA  | II  |
| · 14.5 Perigos para o ambiente:  |   |
| · Poluente das águas:  | Não   |
| · 14.6 Precauções especiais para o utilizador  | Atenção: Líquidos inflamáveis   |
| · N° Kemler:   | 33  |
| · N° EMS:  | F-E,S-E   |
| · 14.7 Transporte a granel em conformidade com o anexo II da Convenção Marpol 73/78 e o Código IBC | Não aplicável.  |
| · Transporte/outras informações:   |   |
| · ADR  |   |
| · Quantidades Limitadas (LQ)   | 1L  |
| · Quantidades exceptuadas (EQ)   | Código: E2  |
|  | Quantidade líquida máxima por embalagem interior: 30 ml                       |
|  | Quantidade líquida máxima por embalagem exterior: 500 ml                      |
| · Categoria de transporte  | 2   |
| · Código de restrição em túneis  | D/E   |

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<ul style="list-style-type: none"> <li>· <b>IMDG</b></li> <li>· <b>Limited quantities (LQ)</b></li> <li>· <b>Excepted quantities (EQ)</b></li> </ul>	<p>1L            Code: E2            Maximum net quantity per inner packaging: 30 ml            Maximum net quantity per outer packaging: 500 ml</p>
<ul style="list-style-type: none"> <li>· <b>UN "Model Regulation":</b></li> </ul>	<p>UN1993, LÍQUIDO INFLAMÁVEL, N.S.A.            (METACRILATO DE METILO MONÓMERO ESTABILIZADO), 3, II</p>

### 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.**
- **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**
  - H225 Líquido e vapor facilmente inflamáveis.
  - H226 Líquido e vapor inflamáveis.
  - H315 Provoca irritação cutânea.
  - H317 Pode provocar uma reacção alérgica cutânea.
  - H319 Provoca irritação ocular grave.
  - H332 Nocivo por inalação.
  - H335 Pode provocar irritação das vias respiratórias.
  - H361d Suspeito de afectar o nascituro.
  - H372 Afecta os órgãos auditivos após exposição prolongada ou repetida.
- **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)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - Flam. Liq. 2: Flammable liquids, Hazard Category 2
  - Flam. Liq. 3: Flammable liquids, Hazard Category 3
  - Acute Tox. 4: Acute toxicity, Hazard Category 4
  - 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
  - Repr. 2: Reproductive toxicity, Hazard Category 2
  - STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
  - STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1
  - STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2



# Ficha de datos de seguridad

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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:** UNICRYL EMBEDDING KIT

· **Número del artículo:** 14660

#### · 1.2 Usos pertinentes identificados de la sustancia o de la mezcla y usos desaconsejados

No existen más datos relevantes disponibles.

· **Utilización del producto / de la elaboración** Sustancias químicas de laboratorio

#### · 1.3 Datos del proveedor de la ficha de datos de seguridad

##### · **Fabricante/distribuidor:**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

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

email: sgkcck@aol.com

www.emsdiasum.com

##### Aname

C/ Perez Galdos no. 2

28693 Quijorna

Madrid, Spain

Tel: +34.91.816.89.50

Fax: +34.91.816.85.94

email: ventas@aname.es

· **Área de información:** Product safety department

#### · 1.4 Teléfono de emergencia:

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

### SECCIÓN 2: Identificación de los peligros

#### · 2.1 Clasificación de la sustancia o de la mezcla

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



GHS02 llama

Flam. Liq. 2 H225 Líquido y vapores muy inflamables.



GHS08 peligro para la salud

Repr. 2 H361d Se sospecha que daña al feto.

STOT RE 2 H373 Puede provocar daños en el sistema auditivo tras exposiciones prolongadas o repetidas



GHS07

Skin Irrit. 2 H315 Provoca irritación cutánea.

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

STOT SE 3 H335 Puede irritar las vías respiratorias.

#### · 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.

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· **Pictogramas de peligro**

GHS02 GHS07 GHS08

· **Palabra de advertencia** Peligro· **Componentes peligrosos a indicar en el etiquetaje:**metacrilato de metilo  
estireno· **Indicaciones de peligro**

H225 Líquido y vapores muy inflamables.

H315 Provoca irritación cutánea.

H317 Puede provocar una reacción alérgica en la piel.

H361d Se sospecha que daña al feto.

H335 Puede irritar las vías respiratorias.

H373 Puede provocar daños en el sistema auditivo tras exposiciones prolongadas o repetidas

· **Consejos de prudencia**

P210 Mantener alejado del calor, de superficies calientes, de chispas, de llamas abiertas y de cualquier otra fuente de ignición. No fumar.

P241 Utilizar un material eléctrico, de ventilación o de iluminación/antideflagrante.

P303+P361+P353 EN CASO DE CONTACTO CON LA PIEL (o el pelo): Quitar inmediatamente todas las prendas contaminadas. Aclararse la piel con agua/ ducharse.

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: 80-62-6 EINECS: 201-297-1	metacrilato de metilo Flam. Liq. 2, H225; Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	50-100%
CAS: 100-42-5 EINECS: 202-851-5	estireno Flam. Liq. 3, H226; Repr. 2, H361d; STOT RE 1, H372; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319	2,5-10%

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

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### SECCIÓN 4: Primeros auxilios

#### · 4.1 Descripción de los primeros auxilios

##### · Instrucciones generales:

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 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.

##### · En caso de ingestión: Consultar un médico si los trastornos persisten.

#### · 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: CO<sub>2</sub>, arena, polvo extintor. No utilizar agua.

##### · Sustancias extintoras inapropiadas por razones de seguridad: Agua a pleno chorro

#### · 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: No se requieren medidas especiales.

### 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:

Evitar que penetre en la canalización /aguas de superficie /agua subterráneas.

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

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

Desechar el material contaminado como vertido según ítem 13.

Asegurar suficiente ventilación.

No enjuagar con agua ni productos de limpieza acuosos.

#### · 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.

### SECCIÓN 7: Manipulación y almacenamiento

#### · 7.1 Precauciones para una manipulación segura

Asegurar suficiente ventilación /aspiración en el puesto de trabajo.

Abrir y manejar el recipiente con cuidado.

Evitar la formación de aerosoles.

#### · Prevención de incendios y explosiones:

Mantener alejadas las fuentes de encendido. No fumar.

Proteger del calor.

Tomar medidas contra las cargas electrostáticas.

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Tener preparados los aparatos respiratorios.

· **7.2 Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades**

· **Almacenamiento:**

· **Exigencias con respecto al almacén y los recipientes:** Almacenar en un lugar fresco.

· **Normas en caso de un almacenamiento conjunto:** No es necesario.

· **Indicaciones adicionales sobre las condiciones de almacenamiento:**

Mantener el recipiente cerrado herméticamente.

Almacenarlo en envases bien cerrados en un lugar fresco y seco.

Proteger del calor y de la luz directa del sol.

· **7.3 Usos específicos finales** No existen más datos relevantes disponibles.

### SECCIÓN 8: Controles de exposición/protección individual

· **Instrucciones adicionales para el acondicionamiento de instalaciones técnicas:**

Sin datos adicionales, ver punto 7.

· **8.1 Parámetros de control**

· **Componentes con valores límite admisibles que deben controlarse en el puesto de trabajo:**

**80-62-6 metacrilato de metilo**

LEP	Valor de corta duración: 100 ppm Valor de larga duración: 50 ppm Sen, VLI
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**100-42-5 estireno**

LEP	Valor de corta duración: 172 mg/m <sup>3</sup> , 40 ppm Valor de larga duración: 86 mg/m <sup>3</sup> , 20 ppm VLB, ae
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· **Componentes con valores límite biológicos:**

**100-42-5 estireno**

VLB	400 mg/g creatinina Muestra: orina Momento de Muestero: Final de la jornada laboral Indicador Biológico: Ácido mandélico más ácido fenilgloxílico
	0,2 mg/l Muestra: sangre venosa Momento de Muestero: Final de la jornada laboral Indicador Biológico: Estireno

· **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 la piel.

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.

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### · 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.

### · 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:	Amarillo
Olor:	Penetrante
Umbral olfativo:	No determinado.

· valor pH: No determinado.

#### · Cambio de estado

Punto de fusión /campo de fusión:	Indeterminado.
Punto de ebullición /campo de ebullición:	101 °C

· Punto de inflamación: 10 °C

· Inflamabilidad (sólido, gaseiforme): No aplicable.

· Temperatura de ignición: 430 °C

· Temperatura de descomposición: No determinado.

· Autoinflamabilidad: El producto no es autoinflamable.

· Peligro de explosión: El producto no es explosivo; sin embargo, pueden formarse mezclas explosivas de vapor / aire.

#### · Límites de explosión:

Inferior:	2,1 Vol %
Superior:	12,5 Vol %

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· Presión de vapor a 20 °C:	47 hPa
· 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.
· Coeficiente de reparto (n-octanol/agua):	No determinado.
· Viscosidad:	
Dinámica:	No determinado.
Cinemática:	No determinado.
· Concentración del disolvente:	
Disolventes orgánicos:	4,0 %
VOC (CE)	4,00 %
· 9.2 Información adicional	No existen más datos relevantes disponibles.

### SECCIÓN 10: Estabilidad y reactividad

- 10.1 Reactividad
- 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

· Valores LD/LC50 (dosis letal /dosis letal = 50%) relevantes para la clasificación:		
<b>80-62-6 metacrilato de metilo</b>		
Oral	LD50	7872 mg/kg (rat)
<b>100-42-5 estireno</b>		
Oral	LD50	5000 mg/kg (rat)
Inhalatorio	LC50/4 h	24 mg/l (rat)

- Efecto estimulante primario:
- Corrosión o irritación cutáneas Irrita la piel y las mucosas.
- Lesiones o irritación ocular graves No produce irritaciones.
- Sensibilización respiratoria o cutánea Posible sensibilización al entrar en contacto con la piel.
- Indicaciones toxicológicas adicionales:  
En conformidad con el procedimiento de cálculo contenido en la última versión de la Normativa General de Clasificación de la CE para Preparados, el producto tiene los siguientes riesgos:  
Irritante

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- Efectos CMR (carcinogenicidad, mutagenicidad y toxicidad para la reproducción)  
Repr. 2

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### SECCIÓN 12: Información ecológica

- **12.1 Toxicidad**
- **Toxicidad acuática:** No existen más datos relevantes disponibles.
- **12.2 Persistencia y degradabilidad** No existen más datos relevantes disponibles.
- **12.3 Potencial de bioacumulación** No existen más datos relevantes disponibles.
- **12.4 Movilidad en el suelo** No existen más datos relevantes disponibles.
- **Indicaciones medioambientales adicionales:**
- **Indicaciones generales:**  
Nivel de riesgo para el agua 1 (autoclasificación): escasamente peligroso para el agua  
En estado no diluido o no neutralizado, no dejar que se infiltre en aguas subterráneas, aguas superficiales o en alcantarillados.
- **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 UN**
- **ADR, IMDG, IATA** UN1993
- **14.2 Designación oficial de transporte de las Naciones Unidas**
- **ADR** 1993 LÍQUIDO INFLAMABLE, N.E.P. (METACRILATO DE METILO MONÓMERO ESTABILIZADO)
- **IMDG, IATA** FLAMMABLE LIQUID, N.O.S. (METHYL METHACRYLATE MONOMER, STABILIZED)
- **14.3 Clase(s) de peligro para el transporte**
- **ADR, IMDG, IATA**
- 
- **Clase** 3 Líquidos inflamables
- **Etiqueta** 3
- **14.4 Grupo de embalaje**
- **ADR, IMDG, IATA** II

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· 14.5 Peligros para el medio ambiente:	
· Contaminante marino:	No
· 14.6 Precauciones particulares para los usuarios	
· Atención:	Líquidos inflamables
· Número Kemler:	33
· Número EMS:	F-E,S-E
· 14.7 Transporte a granel con arreglo al anexo II del Convenio Marpol 73/78 y del Código IBC	
No aplicable.	
· Transporte/datos adicionales:	
· ADR	
· Cantidades limitadas (LQ)	1L
· Cantidades exceptuadas (EQ)	Código: E2 Cantidad neta máxima por envase interior: 30 ml Cantidad neta máxima por embalaje exterior: 500 ml
· Categoría de transporte	2
· Código de restricción del túnel	D/E
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· "Reglamentación Modelo" de la UNECE:	UN1993, LÍQUIDO INFLAMABLE, N.E.P. (METACRILATO DE METILO MONÓMERO ESTABILIZADO), 3, II

### 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
- 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
- H225 Líquido y vapores muy inflamables.
- H226 Líquidos y vapores inflamables.
- H315 Provoca irritación cutánea.
- H317 Puede provocar una reacción alérgica en la piel.
- H319 Provoca irritación ocular grave.
- H332 Nocivo en caso de inhalación.
- H335 Puede irritar las vías respiratorias.
- H361d Se sospecha que daña al feto.
- H372 Provoca daños en el sistema auditivo tras exposiciones prolongadas o repetidas

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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)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*Flam. Liq. 2: Flammable liquids, Hazard Category 2*

*Flam. Liq. 3: Flammable liquids, Hazard Category 3*

*Acute Tox. 4: Acute toxicity, Hazard Category 4*

*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*

*Repr. 2: Reproductive toxicity, Hazard Category 2*

*STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3*

*STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1*

*STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2*