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

1.1. Product identifier

Laromer® LR 8887

Chemical name: Trimethylolpropan formalacrylate
CAS Number: 66492-51-1

| REACH registration number: 01-2119976303-36-0000

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: Coating raw material for industrial applications

For the detailed identified uses of the product see appendix of the safety data sheet.

1.3. Details of the supplier of the safety data sheet

Company:
BASF SE
67056 Ludwigshafen
GERMANY
Regional Business Unit Dispersions and Resins Europe

Telephone: +49 621 60-90799
E-mail address: ed-psr@basf.com

1.4. Emergency telephone number

International emergency number:
Telephone: +49 180 2273-112
SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

According to Regulation (EC) No 1272/2008 [CLP]

Skin Corr./Irrit. 2  
Skin Sens. 1B  
Aquatic Chronic 2  

H315, H317, H411  

For the classifications not written out in full in this section the full text can be found in section 16.

2.2. Label elements

According to Regulation (EC) No 1272/2008 [CLP]

Pictogram:

<table>
<thead>
<tr>
<th>Pictogram</th>
</tr>
</thead>
<tbody>
<tr>
<td>!</td>
</tr>
</tbody>
</table>

Signal Word:  
Warning

Hazard Statement:  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):  
P280 Wear protective gloves.  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P273 Avoid release to the environment.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P264 Wash with plenty of water and soap thoroughly after handling.

Precautionary Statements (Response):  
P333 + P311 If skin irritation or rash occurs: Call a POISON CENTER or doctor/physician.  
P303 + P352 IF ON SKIN (or hair): Wash with plenty of soap and water.  
P332 + P313 If skin irritation occurs: Get medical advice/attention.  
P362 + P364 Take off contaminated clothing and wash it before reuse.  
P391 Collect spillage.

Precautionary Statements (Disposal):
P501 Dispose of contents/container to hazardous or special waste collection point.

According to Regulation (EC) No 1272/2008 [CLP]

Hazard determining component(s) for labelling: (5-Ethyl-1,3-dioxan-5-yl)methyl acrylate, 2,2-bis(acryloyloxymethyl)butyl acrylate

2.3. Other hazards

According to Regulation (EC) No 1272/2008 [CLP]

No specific dangers known, if the regulations/notes for storage and handling are considered.

SECTION 3: Composition/Information on Ingredients

3.1. Substances

Chemical nature

(5-Ethyl-1,3-dioxan-5-yl)methyl acrylate
CAS Number: 66492-51-1
EC-Number: 266-380-7

Hazardous ingredients (GHS) according to Regulation (EC) No. 1272/2008

(5-Ethyl-1,3-dioxan-5-yl)methyl acrylate
Content (W/W): >= 75 % - <= 100 %
CAS Number: 66492-51-1
EC-Number: 266-380-7
Skin Corr./Irrit. 2
Skin Sens. 1B
Aquatic Chronic 2
H315, H317, H411

2,2-bis(acryloyloxymethyl)butyl acrylate
Content (W/W): >= 3 % - < 5 %
CAS Number: 15625-89-5
EC-Number: 239-701-3
INDEX-Number: 607-111-00-9
Skin Corr./Irrit. 2
Eye Dam./Irrit. 2
Skin Sens. 1
Aquatic Acute 1
Aquatic Chronic 1
M-factor acute: 1
H319, H315, H317, H400, H410

5-Ethyl-1,3-dioxane-5-methanol
Content (W/W): >= 1 % - < 7 %  Eye Dam./Irrit. 2
CAS Number: 5187-23-5  H319
EC-Number: 225-967-8

**mequinol**

Content (W/W): >= 0 % - < 0.2 %  Acute Tox. 4 (oral)
CAS Number: 150-76-5  Eye Dam./Irrit. 2
EC-Number: 205-769-8  Skin Sens. 1
INDEX-Number: 604-044-00-7  Aquatic Chronic 3
                          H319, H302, H317, H412

**cyclohexane**

Content (W/W): >= 0.1 % - < 0.2 %  Asp. Tox. 1
CAS Number: 110-82-7  Flam. Liq. 2
EC-Number: 203-806-2  Skin Corr./Irrit. 2
INDEX-Number: 601-017-00-1  STOT SE 3 (drowsiness and dizziness)
                          Aquatic Acute 1
                          Aquatic Chronic 1
                          M-factor acute: 1
                          M-factor chronic: 1
                          H225, H315, H304, H336, H400, H410

For the classifications not written out in full in this section, including the hazard classes and the hazard statements, the full text is listed in section 16.

**3.2. Mixtures**

Not applicable

**SECTION 4: First-Aid Measures**

**4.1. Description of first aid measures**
Immediately remove contaminated clothing.

If inhaled:
If difficulties occur after vapour/aerosol has been inhaled, remove to fresh air and seek medical attention.

On skin contact:
Wash thoroughly with soap and water.

On contact with eyes:
Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.
On ingestion:
Rinse mouth and then drink plenty of water.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11. Further symptoms and/or effects are not known so far.

4.3. Indication of any immediate medical attention and special treatment needed
Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing media
Suitable extinguishing media:
water spray, dry powder, foam

Unsuitable extinguishing media for safety reasons:
water jet

5.2. Special hazards arising from the substance or mixture
harmful vapours
Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

5.3. Advice for fire-fighters
Special protective equipment:
Wear a self-contained breathing apparatus.

Further information:
The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

SECTION 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures
Use personal protective clothing. Breathing protection required.

6.2. Environmental precautions
Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up
For large amounts: Pump off product.
For residues: Pick up with suitable absorbent material. Dispose of absorbed material in accordance with regulations.
6.4. Reference to other sections
Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

SECTION 7: Handling and Storage

7.1. Precautions for safe handling
No special measures necessary provided product is used correctly.

Protection against fire and explosion:
Heated containers should be cooled to prevent polymerization. Take precautionary measures against static discharges.

7.2. Conditions for safe storage, including any incompatibilities
Unsuitable materials for containers: Galvanized carbon steel (Zinc), Lead-plated, Paper/Fibreboard, Carbon steel (Iron), tinned carbon steel (Tinplate)
Further information on storage conditions: Protect against heat. Protect from the effects of light. The stabilizer is only effective in the presence of oxygen.

Protect from temperatures above: 45 °C

7.3. Specific end use(s)
For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

Components with occupational exposure limits

<table>
<thead>
<tr>
<th>Component</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>110-82-7: cyclohexane</td>
<td>TWA value 700 mg/m3 ; 200 ppm (OEL (EU)) indicative</td>
</tr>
<tr>
<td>150-76-5: mequinol</td>
<td></td>
</tr>
<tr>
<td>PNEC</td>
<td></td>
</tr>
<tr>
<td>freshwater</td>
<td>0.004 mg/l</td>
</tr>
<tr>
<td>marine water</td>
<td>0.0004 mg/l</td>
</tr>
<tr>
<td>intermittent release</td>
<td>0.04 mg/l</td>
</tr>
<tr>
<td>STP</td>
<td>30 mg/l</td>
</tr>
<tr>
<td>sediment (freshwater)</td>
<td>0.019 mg/kg</td>
</tr>
</tbody>
</table>
sediment (marine water): 0.0019 mg/kg

soil: 0.0014 mg/kg

oral (secondary poisoning):
No PNEC oral derived, as accumulation in organisms is not to be expected.

DNEL
No DNELs have been derived.

8.2. Exposure controls

Personal protective equipment

Respiratory protection:
Suitable respiratory protection for higher concentrations or long-term effect: Gas filter for gases/vapours of organic compounds (boiling point >65 °C, e.g. EN 14387 Type A)

Hand protection:
Chemical resistant protective gloves (EN 374)
Suitable materials for short-term contact (recommended: At least protective index 2, corresponding > 30 minutes of permeation time according to EN 374)
butyl rubber (butyl) - 0.7 mm coating thickness
nitrile rubber (NBR) - 0.4 mm coating thickness
Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing. Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:
Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:
Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures
Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is required additionally to the stated personal protection equipment. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties
Form: liquid
Colour: light yellow
Odour: ester-like
Odour threshold: Not determined due to potential health hazard by inhalation.

pH value: approx. 7
Melting point: -28.7 °C (other)
boiling temperature: > 200 °C
decomposition point: > 190 °C
Flash point: > 120 °C (Directive 92/69/EEC, A.9, closed cup)

Evaporation rate: No data available.
Flammability: not flammable
Lower explosion limit: For liquids not relevant for classification and labelling. The lower explosion point may be 5 - 15 °C below the flash point.
Upper explosion limit: For liquids not relevant for classification and labelling.

Ignition temperature: 245 °C (DIN 51794)
Vapour pressure: < 0.1 mbar (20 °C) (OECD Guideline 104)
Density: 1.0988 g/cm3 (20 °C) (Directive 92/69/EEC, A.3)
Relative density: approx. 1.0988 (20 °C) (Directive 92/69/EEC, A.3)
Relative vapour density (air): No data available.

Solubility in water: 9.3 g/l (25 °C)
Partitioning coefficient n-octanol/water (log Kow): 1.9 (23 °C) (OECD Guideline 117)
Information based on the main components.

Self ignition: Temperature: 20 °C
not self-igniting
Test type: Spontaneous self-ignition at room-temperature.

Thermal decomposition: 190 °C, 300 - < 500 kJ/kg, (DSC (DIN 51007))
Viscosity, dynamic: 18.3 mPa.s (20 °C) (OECD 114)
The value was determined by calculation from the detected kinematic viscosity.

Explosion hazard: not explosive
Fire promoting properties: Based on its structural properties the product is not classified as oxidizing.

9.2. Other information

Self heating ability: Currently, no data available
pKa:
Adsorption/water - soil: KOC: 11.59; log KOC: 1.06 (calculated)
Surface tension: Based on chemical structure, surface activity is not to be expected.
Grain size distribution: The substance / product is marketed or used in a non solid or granular form.
Molar mass: 200.23 g/mol

SECTION 10: Stability and Reactivity

10.1. Reactivity
No hazardous reactions if stored and handled as prescribed/indicated.
Formation of flammable gases: Remarks: Forms no flammable gases in the presence of water.

10.2. Chemical stability
The product is stable if stored and handled as prescribed/indicated.

10.3. Possibility of hazardous reactions
The product can polymerize if the shelf life or storage temperature are greatly exceeded. Heat develops during polymerization. Reacts with peroxides and other radical components. The product is stabilized against spontaneous polymerization prior to despatch.

10.4. Conditions to avoid
See MSDS section 7 - Handling and storage.

10.5. Incompatible materials
Substances to avoid: peroxides, free radical initiators

10.6. Hazardous decomposition products
Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.
SECTION 11: Toxicological Information

11.1. Information on toxicological effects

Acute toxicity

Assessment of acute toxicity:
Of low toxicity after single ingestion. Virtually nontoxic after a single skin contact.

Experimental/calculated data:
(by inhalation): No data available.

Irritation

Assessment of irritating effects:
Not irritating to the eyes. Irritating to skin.

Experimental/calculated data:
Skin corrosion/irritation rabbit: Irritant. (OECD Guideline 404)
Serious eye damage/irritation rabbit: non-irritant (Guideline 92/69/EEC, B.5)

Respiratory/Skin sensitization

Assessment of sensitization:
Caused skin sensitization in animal studies.

Experimental/calculated data:
Mouse Local Lymph Node Assay (LLNA) mouse: skin sensitizing (OECD Guideline 429)

Germ cell mutagenicity

Assessment of mutagenicity:
The substance was not mutagenic in bacteria. The substance was not mutagenic in mammalian cell culture. The substance was not mutagenic in a test with mammals.

Carcinogenicity

Assessment of carcinogenicity:
No data available.

Reproductive toxicity

Assessment of reproduction toxicity:
The results of animal studies gave no indication of a fertility impairing effect. The results were determined in a Screening test (OECD 421/422).

Developmental toxicity

Assessment of teratogenicity:
No data available.

Specific target organ toxicity (single exposure)

Assessment of STOT single:
Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:
Causes irritating effects at esophagus and the gastro-intestinal tract.

Aspiration hazard
No aspiration hazard expected.

SECTION 12: Ecological Information

12.1. Toxicity

Assessment of aquatic toxicity:
Acutely toxic for aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Toxicity to fish:
LC50 (96 h) 4 mg/l, Oncorhynchus mykiss (OECD Guideline 203, semistatic)
The details of the toxic effect relate to the nominal concentration.

Aquatic invertebrates:
EC50 (48 h) 20 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)
The details of the toxic effect relate to the nominal concentration.

Aquatic plants:
EC50 (72 h) 34 mg/l (growth rate), Desmodesmus subspicatus (OECD Guideline 201, static)
The details of the toxic effect relate to the nominal concentration.

No observed effect concentration (72 h) 9 mg/l (growth rate), Desmodesmus subspicatus (OECD Guideline 201, static)
The details of the toxic effect relate to the nominal concentration.

Microorganisms/Effect on activated sludge:
EC50 > 1,000 mg/l, (OECD Guideline 209, aerobic)

Chronic toxicity to fish:
Study not necessary due to exposure considerations.

Chronic toxicity to aquatic invertebrates:
Study not necessary due to exposure considerations.

Assessment of terrestrial toxicity:
Study not necessary due to exposure considerations.

12.2. Persistence and degradability

Assessment biodegradation and elimination (H2O):
Not readily biodegradable (by OECD criteria).

Elimination information:
28 % DOC reduction (28 d) (OECD 301B; ISO 9439; 92/69/EEC, C.4-C) (aerobic, activated sludge, domestic, non-adapted)
(calculated) Not readily biodegradable (by OECD criteria).

Assessment of stability in water:
Study scientifically not justified.

12.3. Bioaccumulative potential

Assessment bioaccumulation potential:
Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.
The product has not been tested.

Bioaccumulation potential:
Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

12.4. Mobility in soil

Assessment transport between environmental compartments:
Volatility: The substance will not evaporate into the atmosphere from the water surface.
Adsorption in soil: Adsorption to solid soil phase is not expected.

12.5. Results of PBT and vPvB assessment

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

12.6. Other adverse effects

The substance is not listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

12.7. Additional information

Other ecotoxicological advice:
SECTION 13: Disposal Considerations

13.1. Waste treatment methods

Must be disposed of or incinerated in accordance with local regulations.

Contaminated packaging:
Uncontaminated packaging can be re-used.
Packs that cannot be cleaned should be disposed of in the same manner as the contents.

SECTION 14: Transport Information

Land transport

ADR
UN number
UN proper shipping name: UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains TRIMETHYLOLPROPAN FORMALACRYLATE, STABILIZED)
Transport hazard class(es): 9, EHSM
Packing group: III
Environmental hazards: yes
Special precautions for user: None known

RID
UN number
UN proper shipping name: UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains TRIMETHYLOLPROPAN FORMALACRYLATE, STABILIZED)
Transport hazard class(es): 9, EHSM
Packing group: III
Environmental hazards: yes
Special precautions for user: None known

Inland waterway transport

ADN
UN number UN3082
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains TRIMETHYLOLPROPAN FORMALACRYLATE, STABILIZED)

Transport hazard class(es): 9, EHSM
Packing group: III
Environmental hazards: yes
Special precautions for user: None known

Transport in inland waterway vessel
Not evaluated

Sea transport

IMDG

UN number: UN 3082
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains TRIMETHYLOLPROPAN FORMALACRYLATE, STABILIZED)

Transport hazard class(es): 9, EHSM
Packing group: III
Environmental hazards: yes
Special precautions for user: Marine pollutant: YES

Air transport

IATA/ICAO

UN number: UN 3082
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains TRIMETHYLOLPROPAN FORMALACRYLATE, STABILIZED)

Transport hazard class(es): 9, EHSM
Packing group: III
Environmental hazards: yes
Special precautions for user: None known

14.1. UN number
See corresponding entries for “UN number” for the respective regulations in the tables above.

14.2. UN proper shipping name
See corresponding entries for “UN proper shipping name” for the respective regulations in the tables above.

14.3. Transport hazard class(es)
See corresponding entries for “Transport hazard class(es)” for the respective regulations in the tables above.

14.4. Packing group
See corresponding entries for “Packing group” for the respective regulations in the tables above.

14.5. Environmental hazards
See corresponding entries for “Environmental hazards” for the respective regulations in the tables above.

14.6. Special precautions for user
See corresponding entries for “Special precautions for user” for the respective regulations in the tables above.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code
- Regulation: Not evaluated
- Shipment approved: Not evaluated
- Pollution name: Not evaluated
- Pollution category: Not evaluated
- Ship Type: Not evaluated

SECTION 15: Regulatory Information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Prohibitions, Restrictions and Authorizations


If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

15.2. Chemical Safety Assessment

Chemical Safety Assessment not yet performed due to registration timelines

SECTION 16: Other Information

Full text of the classifications, including the hazard classes and the hazard statements, if mentioned in section 2 or 3:

Skin Corr./Irrit. Skin corrosion/irritation
Skin Sens. Skin sensitization
The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Vertical lines in the left hand margin indicate an amendment from the previous version.