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

1.1. Product identifier

Laromer® UA 9033

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

Relevant identified uses: Coating raw material for industrial applications

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. 1
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

Globally Harmonized System, EU (GHS)

Pictogram:

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):
P303 + P352 IF ON SKIN (or hair): Wash with plenty of soap and water.
P333 + P311 If skin irritation or rash occurs: Call a POISON CENTER or doctor/physician.
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]

Labeling of special preparations (GHS):
EUH208: May produce an allergic reaction. Contains: 2-hydroxyethyl acrylate

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(acryloyloxyethyl)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

Not applicable

3.2. Mixtures

Chemical nature

Polymer based on: polyol, isocyanate, acrylic ester

Hazardous ingredients (GHS)

according to Regulation (EC) No. 1272/2008

(5-Ethyl-1,3-dioxan-5-yl)methyl acrylate

<table>
<thead>
<tr>
<th>Content (W/W): &gt;= 20 % - &lt; 30 %</th>
<th>Skin Corr./Irrit. 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS Number: 66492-51-1</td>
<td>Skin Sens. 1B</td>
</tr>
<tr>
<td>EC-Number: 266-380-7</td>
<td>Aquatic Chronic 2</td>
</tr>
<tr>
<td>REACH registration number: 01-2119976303-36</td>
<td>H315, H317, H411</td>
</tr>
</tbody>
</table>

2,2-bis(acryloyloxyethyl)butyl acrylate

<table>
<thead>
<tr>
<th>Content (W/W): &lt; 2 %</th>
<th>Skin Corr./Irrit. 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS Number: 15625-89-5</td>
<td>Eye Dam./Irrit. 2</td>
</tr>
<tr>
<td>EC-Number: 239-701-3</td>
<td>Skin Sens. 1</td>
</tr>
<tr>
<td>REACH registration number: 01-2119489896-11</td>
<td>Aquatic Acute 1</td>
</tr>
<tr>
<td>INDEX-Number: 607-111-00-9</td>
<td>Aquatic Chronic 1</td>
</tr>
</tbody>
</table>

5-Ethyl-1,3-dioxane-5-methanol

<table>
<thead>
<tr>
<th>Content (W/W): &lt; 2 %</th>
<th>Eye Dam./Irrit. 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS Number: 5187-23-5</td>
<td>H319</td>
</tr>
<tr>
<td>EC-Number: 225-967-8</td>
<td></td>
</tr>
</tbody>
</table>
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
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 below: 5 °C
Protect from temperatures above: 60 °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

| 128-37-0: 2,6-di-tert-Butyl-p-cresol |
| 818-61-1: 2-hydroxyethyl acrylate |

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.
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: not soluble
Freezing point: not determined
Boiling point: > 100 °C
Flash point: 130.5 °C (DIN EN 22719; ISO 2719)
Evaporation rate: not determined
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: 360 °C (DIN 51794)
Vapour pressure: 11.4 mbar (20 °C)
Density: 1.07 g/cm³ (20 °C)
Relative density: approx. 1.07 (20 °C)
Relative vapour density (air): not determined
Solubility in water: insoluble (15 °C)
Partitioning coefficient n-octanol/water (log Kow): not applicable
Thermal decomposition: 200 °C, < 300 kJ/kg, (DSC (DIN 51007))
Explosion hazard: not explosive
Fire promoting properties: not fire-propagating

9.2. Other information

Hygroscopy: Non-hygroscopic
Surface tension: No data available.
SECTION 10: Stability and Reactivity

10.1. Reactivity
No hazardous reactions if stored and handled as prescribed/indicated.

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
Experimental/calculated data:
LD50 rat (oral): > 5,000 mg/kg
The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

LC50 rat (by inhalation): 4 h
not determined

LD50 rat (dermal):
not determined

Irritation
Experimental/calculated data:
Skin corrosion/irritation rabbit: Irritant.
The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

Serious eye damage/irritation rabbit: non-irritant
The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

Respiratory/Skin sensitization

Assessment of sensitization:
Based on the ingredients, there is a suspicion of a skin-sensitizing potential.

Experimental/calculated data:
skin sensitizing
The product has not been tested. The statement has been derived from the properties of the individual components.

Germ cell mutagenicity

Assessment of mutagenicity:
Based on the ingredients, there is no suspicion of a mutagenic effect.

Carcinogenicity

Assessment of carcinogenicity:
The whole of the information assessable provides no indication of a carcinogenic effect.

Reproductive toxicity

Assessment of reproduction toxicity:
Based on the ingredients, there is no suspicion of a toxic effect on reproduction.

Developmental toxicity

Assessment of teratogenicity:
Based on the ingredients, there is no suspicion of a teratogenic effect.

Specific target organ toxicity (single exposure)

Remarks: No data available.

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

Assessment of repeated dose toxicity:
The information available on the product provides no indication of toxicity on target organs after repeated exposure.

Aspiration hazard
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. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

Toxicity to fish:
LC50 (96 h) 1 - 10 mg/l, Brachydanio rerio (OECD Guideline 203)
The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

Aquatic invertebrates:
LC50 (48 h), daphnia
not determined

Aquatic plants:
EC50 (72 h), algae
not determined

Microorganisms/Effect on activated sludge:
EC50 > 1,000 mg/l, Pseudomonas putida (DIN 38412 Part 27 (draft), aerobic)
The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

Chronic toxicity to fish:
No data available.

Chronic toxicity to aquatic invertebrates:
No data available.

Assessment of terrestrial toxicity:
No data available concerning terrestrial toxicity.

12.2. Persistence and degradability

Elimination information:
Moderately/partially biodegradable.

> 70 % DOC reduction Easily eliminated from water.

12.3. Bioaccumulative potential
Assessment bioaccumulation potential:
The product has not been tested.

12.4. Mobility in soil

Assessment transport between environmental compartments:
Volutility: The substance will not evaporate into the atmosphere from the water surface. The product
has not been tested. The statement has been derived from the properties of the individual
components.

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 product does not contain substances that are listed in Annex I of Regulation (EC) 2037/2000 on
substances that deplete the ozone layer.

12.7. Additional information

Add. remarks environm. fate & pathway:
Treatment in biological waste water treatment plants has to be performed according to local and
administrative regulations.

Other ecotoxicological advice:
Do not release untreated into natural waters. The local regulations on waste-water treatment must be
followed.

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: 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

RID
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

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
Marine pollutant: 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
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:

<table>
<thead>
<tr>
<th>Classification</th>
<th>Hazard Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Corr./Irrit.</td>
<td>Skin corrosion/irritation</td>
</tr>
<tr>
<td>Skin Sens.</td>
<td>Skin sensitization</td>
</tr>
<tr>
<td>Aquatic Chronic</td>
<td>Hazardous to the aquatic environment - chronic</td>
</tr>
<tr>
<td>Eye Dam./Irrit.</td>
<td>Serious eye damage/eye irritation</td>
</tr>
<tr>
<td>Aquatic Acute</td>
<td>Hazardous to the aquatic environment - acute</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H317</td>
<td>May cause an allergic skin reaction.</td>
</tr>
<tr>
<td>H411</td>
<td>Toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life.</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects.</td>
</tr>
</tbody>
</table>

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.