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

- **1.1 Product identifier**
  - **Product name** LOBADUR B1 Härter/ Hardener für alle Lacke A1 / for all varnishes A1
  - **Article number:** 11467-B1-000
  - **UFI:** -

- **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** Hardening agent/ Curing agent

- **1.3 Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:** LOBA GmbH & Co. KG
    - Leonberger Straße 56 - 62
    - D-71254 Ditzingen
    - Tel.: +49 (0)7156/357-0
  - **Informing department:** Productmanagement
  - e-mail: service@loba.de

- **1.4 Emergency telephone number:** Emergency CONTACT (24-Hour-Number): GBK GmbH +49 (0)6132-84463

**SECTION 2: Hazards identification**

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

  ![GHS07]
  
  Acute Tox. 4   H332 Harmful if inhaled.
  Skin Sens. 1   H317 May cause an allergic skin reaction.
  STOT SE 3   H335 May cause respiratory irritation.
  Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

- **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**

  ![GHS07]

- **Signal word** Warning

- **Hazard-determining components of labelling:**
  - aliphatic polyisocyanate
  - hexamethylendisocyanate oligomers
  - 2-butoxyethyl acetate
  - hexamethylene diisocyanate

- **Hazard statements**
  - H332 Harmful if inhaled.
  - H317 May cause an allergic skin reaction.
  - H335 May cause respiratory irritation.
  - H412 Harmful to aquatic life with long lasting effects.

(Contd. on page 2)
**Safety data sheet**

according to 1907/2006/EC, Article 31

**Printing date 18.01.2021**

**Version number 5**

**Revision: 18.01.2021**

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**Product name LOBADUR B1 Härter/ Hardener für alle Lacke A1 / for all varnishes A1**

(Contd. of page 1)

**· Precautionary statements**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves / eye protection.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER/doctor if you feel unwell.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

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

**· Additional information:**

EUH204 Contains isocyanates. May produce an allergic reaction.

**· 2.3 Other hazards**

**· Results of PBT and vPvB assessment**

**· PBT: Not applicable.**

**· vPvB: Not applicable.**

---

**SECTION 3: Composition/information on ingredients**

**· 3.2 Mixtures**

**· Description:** Mixture of the substances listed below with harmless additions.

**· Dangerous components:**

<table>
<thead>
<tr>
<th>CAS: 160994-68-3</th>
<th>aliphatic polyisocyanate</th>
<th>25-50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335; Aquatic Chronic 3, H412</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 28182-81-2</th>
<th>hexamethylenedisocyanate oligomers</th>
<th>25-50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC number: 931-274-8</td>
<td>Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335</td>
<td></td>
</tr>
<tr>
<td>Reg.nr.: 01-2119485796-17</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 112-07-2</th>
<th>2-butoxyethyl acetate</th>
<th>5-10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 203-933-3</td>
<td>Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332</td>
<td></td>
</tr>
<tr>
<td>Index number: 607-038-00-2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reg.nr.: 01-2119475112-47-xxxx</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 822-06-0</th>
<th>hexamethylene disocyanate</th>
<th>&lt;0.1%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 212-485-8</td>
<td>Acute Tox. 3, H331; Resp. Sens. 1, H334; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335, EUH204</td>
<td></td>
</tr>
<tr>
<td>Index number: 615-011-00-1</td>
<td>Specific concentration limits: Resp. Sens. 1; H334: C ≥ 0.5 %</td>
<td></td>
</tr>
<tr>
<td>Reg.nr.: 01-2119457571-37-0000/5/6</td>
<td>Skin Sens. 1; H317: C ≥ 0.5 %</td>
<td></td>
</tr>
</tbody>
</table>

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

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**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 call for doctor for safety reasons.

In case of unconsciousness bring patient into stable side position for transport.

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

**· After eye contact** Rinse opened eye for several minutes under running water.

**· After swallowing** In case of persistent symptoms consult doctor.

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

(Contd. on page 3)
SECTION 5: Firefighting measures

- 5.1 Extinguishing media
- Suitable extinguishing agents
  CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
- 5.2 Special hazards arising from the substance or mixture No further relevant information available.

- 5.3 Advice for firefighters
- Protective equipment: Put on breathing apparatus.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures Not required.
- 6.2 Environmental precautions:
  Do not allow product to reach sewage system or water bodies.
  Inform respective authorities in case product reaches water or sewage system.
- 6.3 Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Dispose of contaminated material as waste according to item 13.
  Ensure adequate ventilation.
- 6.4 Reference to other sections
  See Section 7 for information on safe handling
  See Section 8 for information on personal protection equipment.
  See Section 13 for information on disposal.

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling
  Keep containers tightly sealed.
  Ensure good ventilation/exhaustion at the workplace.
  Prevent formation of aerosols.
- Information about protection against explosions and fires: No special measures required.
- 7.2 Conditions for safe storage, including any incompatibilities
- Storage
  Requirements to be met by storerooms and containers: No special requirements.
  Information about storage in one common storage facility: Not required.
  Further information about storage conditions: Keep container tightly sealed.
  Storage class 10
- 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- 8.1 Control parameters
  - Components with critical values that require monitoring at the workplace:
    - 112-07-2 2-butoxyethyl acetate
    - WEL Short-term value: 332 mg/m³, 50 ppm
      Long-term value: 133 mg/m³, 20 ppm
      Sk
822-06-0 hexamethylene diisocyanate

WEL: Short-term value: 0.07 mg/m³
Long-term value: 0.02 mg/m³
Sen; as -NCO

Ingredients with biological limit values:

822-06-0 hexamethylene diisocyanate

BMGV: 1 µmol creatinine/mol
Medium: urine
Sampling time: At the end of the period of exposure
Parameter: isocyanate-derived diamine

Additional information: The lists that were valid during the compilation were used as basis.

8.2 Exposure controls

Appropriate engineering controls No further data; see item 7.
Individual protection measures, such as personal protective equipment
General protective and hygienic measures
Keep away from foodstuffs, beverages and food.
Immediately remove any soiled and impregnated garments.
Wash hands during breaks and at the end of the work.
Breathing equipment:
In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.
Hand protection
Protective gloves.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
Material of gloves
Nitrile rubber, NBR
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 cannot be calculated in advance and has therefore to be checked prior to the application.
Recommended thickness of the material: ≥ 0.4 mm
Penetration time of glove material
The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.
For the mixture of chemicals mentioned below the penetration time has to be at least 480 minutes (Permeation according to EN 374 Part 3: Level 6).
Value for the permeation: Level ≤ 6
Eye/face protection Safety glasses recommended during refilling.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties
General Information
Physical state Fluid
Colour: According to product specification
Smell: Recognisable
Odour threshold: Not determined.
Melting point/freezing point: Not determined
Boiling point or initial boiling point and boiling range: Not determined
Flammability Not applicable.
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Upper:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Flash point:</td>
<td>65 °C</td>
</tr>
<tr>
<td>Self-inflammability:</td>
<td>Product is not selfigniting.</td>
</tr>
<tr>
<td>Decomposition temperature:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>pH</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Viscosity:</td>
<td></td>
</tr>
<tr>
<td>Kinematic viscosity at 20 °C</td>
<td>36 s (DIN 53211/4)</td>
</tr>
<tr>
<td>Dynamic:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solubility:</td>
<td></td>
</tr>
<tr>
<td>Water:</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water (log value)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Steam pressure:</td>
<td></td>
</tr>
<tr>
<td>Density and/or relative density</td>
<td></td>
</tr>
<tr>
<td>Density at 20 °C</td>
<td>1.095 g/cm³</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

### 9.2 Other information

- **Appearance:** Fluid
- **Form:** Fluid
- **Important information on protection of health and environment, and on safety:**
  - **Explosive properties:** Product is not explosive.
  - **Solids content:** 75.0 %
  - **Change in condition**
  - **Evaporation rate** Not determined.

### Information with regard to physical hazard classes

- **Explosives** Void
- **Flammable gases** Void
- **Aerosols** Void
- **Oxidising gases** Void
- **Gases under pressure** Void
- **Flammable liquids** Void
- **Flammable solids** Void
- **Self-reactive substances and mixtures** Void
- **Pyrophoric liquids** Void
- **Pyrophoric solids** Void
- **Self-heating substances and mixtures** Void
- **Substances and mixtures, which emit flammable gases in contact with water** Void
- **Oxidising liquids** Void
- **Oxidising solids** Void
- **Organic peroxides** Void
- **Corrosive to metals** Void
- **Desensitised explosives** Void

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
  - **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
Product name LOBADUR B1 Härter/ Hardener für alle Lacke A1 / for all varnishes A1

• 10.3 Possibility of hazardous reactions
Reacts with alcohols, amines, aqueous acids and alkalis
Reacts with water
Danger of bursting

• 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 hazard classes as defined in Regulation (EC) No 1272/2008
• Acute toxicity Harmful if inhaled.

• 11.2 Information on other hazards

• Endocrine disrupting properties
None of the ingredients is listed.

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.
• 12.5 Results of PBT and vPvB assessment
• PBT: Not applicable.
• vPvB: Not applicable.

• 12.6 Endocrine disrupting properties
The product does not contain substances with endocrine disrupting properties.

• 12.7 Other adverse effects
• Remark: Harmful to fish

• Additional ecological information:
• General notes:
Water hazard class 2 (Self-assessment): hazardous for water.
Do not allow product to reach ground water, water bodies or sewage system.
Danger to drinking water if even small quantities leak into soil.

(Contd. on page 7)


SECTION 13: Disposal considerations

· 13.1 Waste treatment methods
  · Recommendation
  Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
  After prior treatment product has to be landfilled or incinerated under adherence to the regulations pertaining to the disposal of especially hazardous waste.

· European waste catalogue

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>08 00 00</td>
<td>WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS</td>
</tr>
<tr>
<td>08 01 00</td>
<td>wastes from MFSU and removal of paint and varnish</td>
</tr>
<tr>
<td>08 01 11*</td>
<td>waste paint and varnish containing organic solvents or other hazardous substances</td>
</tr>
</tbody>
</table>

· Uncleaned packagings:
  · Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN number or ID number
  · ADR, ADN, IMDG, IATA
  Void

· 14.2 UN proper shipping name
  · ADR, ADN, IMDG, IATA
  Void

· 14.3 Transport hazard class(es)
  · ADR, ADN, IMDG, IATA
  · Class
  Void

· 14.4 Packing group
  · ADR, IMDG, IATA
  Void

· 14.5 Environmental hazards:
  Not applicable.

· 14.6 Special precautions for user
  Not applicable.

· 14.7 Maritime transport in bulk according to IMO instruments
  Not applicable.

· UN "Model Regulation":
  Void

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.
  · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 74

(Contd. on page 8)
Product name LOBADUR B1 Härter/ Hardener für alle Lacke A1 / for all varnishes A1

- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

  None of the ingredients is listed.

- **National regulations**

  - **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.

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

## SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Alteration in the context will be marked with a cross (*).

- **Relevant phrases**
  
  - H302 Harmful if swallowed.
  - H312 Harmful in contact with skin.
  - H315 Causes skin irritation.
  - H317 May cause an allergic skin reaction.
  - H319 Causes serious eye irritation.
  - H331 Toxic if inhaled.
  - H332 Harmful if inhaled.
  - H344 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
  - H335 May cause respiratory irritation.
  - H412 Harmful to aquatic life with long lasting effects.
  - EUH204 Contains isocyanates. May produce an allergic reaction.

- **Department issuing data specification sheet:** Productmanagement.

- **Date of previous version:** 18.01.2021

- **Version number of previous version:** 4

- **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)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - Acute Tox. 3: Acute toxicity - inhalation – Category 3
  - Acute Tox. 4: Acute toxicity - inhalation – Category 4
  - Skin Irrit. 2: Skin corrosion/irritation – Category 2
  - Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
  - Resp. Sens. 1: Respiratory sensitisation – Category 1
  - Skin Sens. 1: Skin sensitisation – Category 1
  - STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
  - Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

- **Data compared to the previous version altered.**