Safety Data Sheet has been compiled according to Regulation (EC) No 1907/2006 (REACH), Annex II

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MATERIAL SAFETY DATA SHEET "EPOKATE LAKK" (B)

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

1.1 Product identifier

EPOKATE LAKK (B)

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

Identified uses: Epokate LAKK (B) is used as hardener in two-component epoxy-resin flooring systems, mainly as coating material. It is intended for proffesional use at construction sites and for conditions which need to endure heavy load of wearing or friction (e.g. production halls, warehouses, airplane hangars, garages, laboratories, farms).

1.3 Details of the supplier of the safety data sheet:

Manufacturer/Distributor: Epokate OÜ
Address: Savimäe 5, Vahi küla, Tartu vald, 60534, Tartumaa, Estonia
Telefoninumber: + 372 50 83 751
E-posti aadress: info@epokate.ee

1.4 Emergency telephone number:

Poisoning information centre: 16662 (24-hour emergency response hotline)
Rescue: 112 (24-hour emergency response hotline)

SECTION 2: Hazards identification

Ckassification & labelling according to REGULATION (EC) No 1272/2008

2.1 Classification of the substance or mixture:

Acute Tox 4; H302+H312+H332
Skin Corr 1B; H314
Skin Sens 1; H317
Aquatic Chronic 2; H411

2.2 Label elements:

Hazard pictograms:

Signal word: **DANGER**

Hazard statements:
H314 - Causes severe skin burns and eye damage.
H302 - Harmful if swallowed.
H312 -Harmful in contact with skin.
H332 - Harmful if inhaled.
H317 - May cause an allergic skin reaction.
H411 - Toxic to aquatic life with long lasting effects.

EUH071 - Corrosive to the respiratory tract.
EUH210 - Safety data sheet available on request.

Precautionary statements:
P273 - Avoid release to the environment.
P391 - Collect spillage.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.

P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several

P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P501 - Dispose of contents/container in accordance with

Full text of H-, P- and EUH phrases: see SECTION 16

2.3 Other hazards:

The mixture does not contain PBT or vPvB substances according to REGULATION (EC) No 1907/2006 Annex XIII criteria

SECTION 3: Composition/information on ingredients

3.1 Substances: not applicable, see point 3.2

3.2 Mixtures:

Description of the mixture: Mixture is used as component B for two-component epoxy flooring systems. Prior to use mix together with epoxy resin (component A)

Hazardous ingredients:

Substance name	CAS no.	REACH registration number	Concentration %	Classification according to REGULATION (EC) No. 1272/2008	
3-aminomethyl-3,5,5-trimethylcyclohexylamine	2855-13-2	01-2119514687-32	15-20	Acute Tox. 4 Acute Tox. 4 Skin Corr. 1B Skin Sens. 1 Aquatic Chronic 3	H302 H312 H314 H317 H412
Benzyl alcohol	100-51-6	01-2119492630-38	15-20	Acute Tox. 4 Acute Tox. 4	H302 H332
m-phenylenebis(methylamine)	1477-55-0	01-2119480150-50	10-15	Acute Tox. 4 Skin Corr. 1B Skin Sens. 1B Acute Tox. 4 Aquatic Chronic 3	H302 H314 H317 H332 H412
Reaction product. bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)	25068-38-6	01-2119456619-26	5-15	Skin Irrit. 2 Skin Sens. 1 Eye Irrit. 2 Aquatic Chronic 2	H315 H317 H319 H411

Full text of H- and EUH-phrases: see SECTION 16

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.Occupational exposure limits, if available, are listed in SECTION 8.

SECTION 4: First aid measures

4.1 Description of fist aid measures:

Inhalation: Supply fresh air and call for doctor for safety reasons. In case of unconsciousness bring patient into stable side position for transport.

Skin contact: Instantly wash with water and soap and rinse thoroughly.
Cover wound with a sterile dressing.
If skin irritation continues, consult a doctor.

Eye contact:	Rinse opened eye for several minutes under running water. Then consult doctor. Continue to bathe eyes during transport to medical practitioner.
Ingestion:	Rinse out mouth and then drink plenty of water. Call a doctor immediately. Do not induce vomiting unless directed to do so by medical personnel. Maintain an open airway. Seek immediate medical attention.
Self-protection of the first aider:	Take affected persons out of danger area and instruct to lie down. Instantly remove any clothing soiled by the product. No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Eye contact:	Corrosive to eyes. Symptoms may include pain, watering, redness.
Inhalation:	Harmful by inhalation. May give off gas, vapour or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact:	Corrosive to the skin. Causes burns. Harmful in contact with skin. May cause sensitization by skin contact. Adverse symptoms may include irritation or pain, redness, blistering may occur.
Ingestion:	Harmful if swallowed. May cause burns to mouth, throat and stomach. Adverse symptoms may include stomach pains.

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor:	Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Special treatment:	No specific treatment.

SECTION 5: Fire fighting measures

5.1 Extinguishing media:

Suitable extinguishing media:	Use dry chemical. CO2, extinguishing powder or water spray (fog).
Unsuitable extinguishing media:	Water with a full water jet.

5.2 Special hazards arising from the substance or mixture:

In a fire or if heated, the pressure increase may cause the container to burst. Decomposition product may include carbon dioxide, carbon monoxide, nitrogen oxides.

5.3 Advice for firefighters:

Special protective actions for fire-fighter:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. This material is toxic to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Special protective equipment for fire-fighters:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
Additional information:	In case of fire cool endangered containers with water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also Section 8 for additional information on hygiene measures.

6.2 Environmental precautions:

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

6.3 Methods and materials for containment and cleaning up:

Small spill:	Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container.
Large spill:	Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with noncombustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13).

6.4 References to other sections:

See **Section 1** for emergency contact information. See **Section 8** for information on appropriate personal protective equipment. See **Section 13** for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Conditions for safe storage, including any incompatibilities

Protective measures:	Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Avoid release to the environment. Refer to special instructions/safety data sheet. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous.
Advice on general occupational hygene:	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

7.3 Special end use(s)

Recommendations:	Not available
Industrial sector specific solutions:	Not available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits:	No exposure limit value known. **Reccommended monitoring procedures:** If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.
Derived effect levels:	No DELs available
Predicted effect concentrations:	No PECs available

8.2 Exposure controls

Appropriate engineering controls:	Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Individual protection measures:

Eye/face protection:	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.
Hygiene measures:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.
Hand protection :	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Reference number EN 374. Suitable for short time use or protection against splashes: Butyl rubber/nitrile rubber gloves. (0,4 mm), breakthrough time 30 min.
Body protection:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Use barrier skin cream.
Other skin protection:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection:	No special measures required
Environmental exposure controls:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Colour	Yellowish
Odour	Amine-like
Odour threshold	Not available
pH	11 (ISO 8975)
Melting point/freezing point	Not available
Initial boiling point and boiling range	Not available
Boiling point	>200°C (DIN 53171)
Flash point	>110°C (ISO 2719)
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Burning time	Not available
Burning rate	Not available

Upper/lower flammability or explosive limits	Not available
Vapour pressure	Not available
Vapour density	Not available
Density	900-1100 kg/m³ (+25˚C)
Relative density	Not available
Solubility(ies)	Slightly soluble in water
Partition coefficient: noctanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	0.05-0.5 Pa.s (+25˚C)
Explosive properties	Not explosive
Oxidising properties	Not available

9.2 Other information:

No additional information

SECTION 10: Stability and reactivity

10.1 Reactivity:

Dangerous reactions Strong exothermic reaction with acids

10.2 Chemical stability:

Product is stable at normal conditions.

10.3 Possibility of hazardous reactions:

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid:

No specific data.

10.5 Incompatible materials:

No specific data.

10.6 Hazardus decomposition products:

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity:

Benzyl alcohol (CAS nr 100-51-6)
Oral LD50 1230 mg/kg (rat)
Dermal LD50 2000 mg/kg (rabbit)
Inhalative LC50 / 4h > 4178 mg/m³ (rat)
LC50 / 8h 1000 ppm (rat)

3-aminomethyl-3,5,5-trimethylcyclohexylamine (CAS nr 2855-13-2)
Oral LD50 1030 mg/kg (rat)
Dermal LD50 1840 mg/kg (rabbit)

Irritation/Corrosion: Not available

Sensitisation:	Not available
Mutagenicity:	Not available
Carcinogenicity:	Not available
Reproductive toxicity:	Not available
Information on the likely routes of exposure:	Not available

11.2 Other information:

Not available

SECTION 12: Ecological information

12.1 Toxicity

Harmful to fish. Harmful to aquatic organisms. May cause long-term adverse effects in the water environment. Do not allow product to reach ground water, water bodies or sewage system.

Benzyl alcohol (CAS nr 100-51-6)
EC50/48h > 10 mg/l (Daphnia magna)
IC50/72h > 100 mg/l (Algae)
LC50/8h > 4000 mg/l (rat)
LC50/96h > 10 mg/l (fish)

3-aminomethyl-3,5,5-trimethylcyclohexylamine (CAS nr 2855-13-2)
EC50/48h 17.4 mg/l (Daphnia magna)

12.2 Persistence and degradability

Not available

12.3 Bioaccumulative potential

Not applicable

12.4 Mobility in soil

Not available

12.5 Results of PBT and vPvB assessment

Not available

12.6 Other adverse effects

No known significant effects or critical hazards

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Methods of disposal:	Before disposal see information in SECTION 7 and SECTION 8. The generation of waste should be avoided or minimised wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
Hazardous waste:	Yes. Waste code 08 01 11* - waste paint and varnish containing organic solvents or other dangerous substances (EU waste catalogue)

Packaging: Completely emptied packaging or practically empty packaging containing dried/cured residues, once relieved of all pressure can be disposed of as non-hazardous waste. Packaging may still contain hazardous residues and disposal should be undertaken by a licensed waste contractor. Any disposal practice must be in compliance with local and national laws and regulations.

SECTION 14: Transport information

14.1 UN number:	UN 2735
14.2 UN proper shipping name:	Polyamines, liquid, Corrosive, n.o.s. (TeTa, EpoCure)
14.3 Transport hazard class(es):	8
14.4 Packaging group:	III
14.5 Environmental hazards:	see SECTION 6
14.6 Special precautions for user:	see SECTION 7 ja 8
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:	Not applicable

SECTION 15: Regulatory information

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

Regulation (EC) 1907/2006 on the Registration, Evaluation, Authorisation and Restriction of Chemidals - REACH

Annex XIV - List of substances subject to authorisation

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Regulation (EC) 1272/2008 on the classification, labelling and packaging (CLP) of substances and mixtures - CLP

Hazardous waste ja transport regulations

15.2 Chemical Safety Assessment

A chemicals Safety Assessment has not been done

SECTION 16: Other information

16.1 Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008:

Classification according to Regulation (EC) Nr 1207/2008	Classification procedure (Art. 9 CLP regulation)
Acute Tox 4; H302+H312+H332	Expert judgement
Skin Corr 1B; H314	Expert judgement
Skin Sens 1; H317	Expert judgement
Aquatic Chronic 2; H411	Expert judgement

16.2 Abbreviations and acronyms:

Pictograms:

GHS05

GHS07

GHS09

H-phrases: Acute Toxicity Category 4; H302+H312+H332
Skin Corrosive Category 1B; H314
Skin Sensitation Category 1; H317
Aquatic Chronic Tocicity Category 2; H411

H314 - Causes severe skin burns and eye damage.
H302 - Harmful if swallowed.
H312 -Harmful in contact with skin.
H332 - Harmful if inhaled.
H317 - May cause an allergic skin reaction.
H411 - Toxic to aquatic life with long lasting effects.

EUH071 - Corrosive to the respiratory tract.
EUH210 - Safety data sheet available on request.

P-phrases:

P273 - Avoid release to the environment.
P391 - Collect spillage.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P501 - Dispose of contents/container in accordance with local/regional/national/international regulations