

SAFETY DATA SHEET

LAPKON LV BASE

(PART-A)

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

Product identifier

Product name LAPKON BASE (PART-A)

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

Identified uses Base component of two part epoxy grout system.

1.3. Details of the supplier of the safety data sheet

Supplier **SILKON ADDITIVES INDIA PVT LTD.**
622-P, SECTOR-38 GURUGRAM
HARYANA-122001
 18001236299 / 9717887038

1.4. Emergency telephone number

Emergency telephone 18001236299 / 9717887038

SECTION 2: Hazards identification

Classification of the substance or mixture Classification (EC 1272/2008)

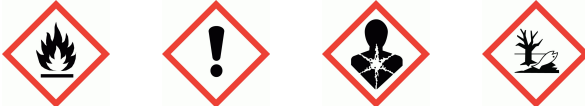
Physical hazards Flam. Liq. 3 - H226

Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Muta. 2 - H341 Carc. 2 - H351

Environmental hazards Aquatic Chronic 2 - H411

Label elements

Hazard pictograms



Signal word

Warning

Hazard statements

H226 Flammable liquid and vapour.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H317 May cause an allergic skin reaction.
 H341 Suspected of causing genetic defects.
 H351 Suspected of causing cancer.
 H411 Toxic to aquatic life with long lasting effects.

LAPKON LV BASE (PART-A)

Precautionary statements	<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P273 Avoid release to the environment.</p> <p>P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P403+P235 Store in a well-ventilated place. Keep cool.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
Contains	<p>reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700), BUTYL GLYCIDYL ETHER</p>
Supplementary precautionary statements	<p>P201 Obtain special instructions before use.</p> <p>P202 Do not handle until all safety precautions have been read and understood. P233 Keep container tightly closed.</p> <p>P240 Ground and bond container and receiving equipment.</p> <p>P241 Use explosion-proof electrical equipment.</p> <p>P242 Use non-sparking tools.</p> <p>P243 Take action to prevent static discharges.</p> <p>P261 Avoid breathing vapour/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P308+P313 IF exposed or concerned: Get medical advice/ attention. P321 Specific treatment (see medical advice on this label).</p> <p>P332+P313 If skin irritation occurs: Get medical advice/ attention.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P337+P313 If eye irritation persists: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish. P391 Collect spillage.</p> <p>P405 Store locked up.</p>

Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin		60-100%
(number average molecular weight ≤ 700)		
CAS number: 25068-38-6	EC number: 500-033-5	REACH registration number: 01-2119456619-26-XXXX
Classification Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411		

LAPKON LV BASE (PART-A)

BUTYL GLYCIDYL ETHER	5-10%
CAS number: 2426-08-6	EC number: 219-376-4
Classification Flam. Liq. 3 - H226 Acute Tox. 4 - H302 Acute Tox. 4 - H332 Skin Sens. 1 - H317 Muta. 2 - H341 Carc. 2 - H351 STOT SE 3 - H335 Aquatic Chronic 3 - H412	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

Description of first aid measures

General information	Immediately remove contaminated clothing. Contaminated clothing and shoes must be discarded.
Inhalation	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.
Ingestion	Do Not induce vomiting. Get medical attention immediately. Promptly get affected person to drink large volumes of water to dilute the swallowed chemical.
Skin contact	Remove contaminated clothing. Wash skin thoroughly with soap and water or use an approved skin cleanser. Preferably, use a cleanser based on polyethylene glycol. Get medical attention promptly if symptoms occur after washing.
Eye contact	Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention.

Most important symptoms and effects, both acute and delayed

General information	Treat symptomatically. The severity of the symptoms described will vary dependent on the concentration and the length of exposure. Keep affected person under observation.
Inhalation	Upper respiratory irritation. May cause sensitisation by inhalation.
Ingestion	May cause stomach pain or vomiting.
Skin contact	May cause severe skin irritation as well as skin sensitisation
Eye contact	Severe irritation, burning and tearing.

Indication of any immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.
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SECTION 5: Firefighting measures

Suitable extinguishing media	Extinguish with foam, carbon dioxide or dry powder.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

LAPKON LV BASE (PART-A)

Specific hazards	Containers can burst violently or explode when heated, due to excessive pressure build-up.
Hazardous combustion products	Fire or high temperatures create: Toxic gases/vapours/fumes of: Carbon monoxide (CO). Carbon dioxide (CO ₂). Oxides of nitrogen.
<u>Advice for firefighters</u>	Control run-off water by containing and keeping it out of sewers and watercourses.
Protective actions during firefighting	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.
Special protective equipment for firefighters	

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Wear protective clothing as described in Section 8 of this safety data sheet. Use suitable respiratory protection if ventilation is inadequate. In case of spills, beware of slippery floors and surfaces.
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Environmental precautions

Environmental precautions	Do not discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.
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Methods and material for containment and cleaning up

Methods for cleaning up	Stop leak if possible without risk. DO NOT touch spilled material! Clean-up personnel should use respiratory and/or liquid contact protection. Provide ventilation and confine spill. Do not allow runoff to sewer. Absorb in vermiculite, dry sand or earth and place into containers. Inform Authorities if large amounts are involved. Do not seal the containers. Keep damp and in the open air for at least seven days.
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Reference to other sections

Reference to other sections	For waste disposal, see section 13. For personal protection, see Section 8.
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SECTION 7: Handling and storage

Precautions for safe handling

Usage precautions	Avoid contact with skin and eyes. Avoid inhalation of vapours. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Do not eat, drink or smoke when using this product. Contaminated clothing and shoes must be discarded.
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Conditions for safe storage, including any incompatibilities

Storage precautions	Store in tightly-closed, original container in a dry and cool place. Protect from sunlight.
Storage class	Flammable liquid storage.

Specific end use(s)

Specific end use(s)	The identified uses for this product are detailed in Section 1.2.
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SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

BUTYL GLYCIDYL ETHER

Long-term exposure limit (8-hour TWA): WEL 25 ppm 135 mg/m³

LAPKON LV BASE (PART-A)

WEL = Workplace Exposure Limit

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700) (CAS: 25068-38-6)

DNEL	Workers - Inhalation; Short term systemic effects: 12.25 mg/m ³ Workers - Inhalation; Long term systemic effects: 12.25 mg/m ³
PNEC	- Freshwater; 0.006 mg/l

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

Wear tight-fitting, chemical splash goggles or face shield.

Hand protection

Wear protective gloves made of the following material: Nitrile rubber.

Hygiene measures

Provide eyewash station and safety shower. Discard contaminated shoes and clothing. Do not eat, drink or smoke when using this product.

Respiratory protection

Gas filter, type A2.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Clear liquid.
Colour	Colourless.
Odour	Characteristic.
Initial boiling point and range	>200 °C
Flash point	> 150°C
Relative density	1.12 at 20°C
Solubility(ies)	Immiscible with water.
Explosive properties	Not considered to be explosive.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising. 9.2.
Other information	
Other information	Not determined.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity The following materials may react with the product: Alkalis. Acids. Amines. **10.2.**

Chemical stability

Stability Stable at normal ambient temperatures.

LAPKON LV BASE (PART-A)

Possibility of hazardous reactions

Possibility of hazardous reactions Reacts violently with strong acids.

Conditions to avoid

Conditions to avoid Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Materials to avoid Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Fire creates: Carbon monoxide (CO). Carbon dioxide (CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects The toxicological assessment is based on a knowledge of the toxicity of the product's components.

Acute toxicity - oral

ATE oral (mg/kg) 5,555.56

Acute toxicity - inhalation

ATE inhalation (gases ppm) 50,000.0

ATE inhalation (vapours mg/l) 122.22

ATE inhalation (dusts/mists mg/l) 16.67

Inhalation Harmful by inhalation. May cause respiratory irritation. Vapours may cause headaches, dizziness and central nervous system depression.

Ingestion Harmful if swallowed. May be fatal if swallowed and enters airways.

Skin contact Causes severe skin burns and eye damage. May cause an allergic skin reaction.

Eye contact May cause severe eye irritation.

Acute and chronic health hazards May cause cancer.

Toxicological information on ingredients.

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 5,000.0

Species Rat

Notes (oral LD₅₀) NOAEL 750 mg/kg, Oral, Rat

ATE oral (mg/kg) 5,000.0

Acute toxicity - dermal

LAPKON LV BASE (PART-A)

Acute toxicity dermal (LD₅₀ mg/kg)	20,000.0
Species	Rabbit
Notes (dermal LD₅₀)	LD ₅₀ >1600 mg/kg, Dermal, Rat
ATE dermal (mg/kg)	20,000.0
<u>Skin corrosion/irritation</u>	
Animal data	Rabbit Moderately irritating.
<u>Skin sensitisation</u>	
Skin sensitisation	May cause sensitisation by skin contact.

SECTION 12: Ecological information

Ecotoxicity The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

Toxicity

Toxicity toxic to aquatic life.

Acute aquatic toxicity

Acute toxicity - fish LC₅₀: > 100 mg/l (Danio rerio (zebra fish), 96 h)

Acute toxicity - aquatic invertebrates EC₅₀: > 100 mg/l (Daphnia magna (Water flea), 48 h)

Acute toxicity - aquatic plants ErC₅₀: 199 mg/l, (scenedesmus subspicatus, 72 h)

Acute toxicity - microorganisms EC₅₀: 842 mg/l, (activated sludge, 3 h)

Ecological information on ingredients.

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)

Toxicity Ecotoxic to fish/daphnia/algae

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 3.6 mg/l, Leuciscus idus (Golden orfe)

LC₅₀, 96 hours: 2 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 1.8 mg/l, Daphnia magna

EC₅₀, 72 hours: 11 mg/l, Scenedesmus capricornutum (fresh water algae)

Acute toxicity - aquatic plants

Persistence and degradability

Persistence and degradability The product is not readily biodegradable.

Ecological information on ingredients.

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)

Persistence and degradability The product is not readily biodegradable.

Bioaccumulative potential

LAPKON LV BASE (PART-A)

Bioaccumulative potential No data available on bioaccumulation.

Ecological information on ingredients.

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)

Partition coefficient log Pow: 3.242

12.4. Mobility in soil

Mobility The product is insoluble in water.

Ecological information on ingredients.

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)

Mobility The product has poor water-solubility.

Adsorption/desorption coefficient Water - Koc: 445 @ °C

Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information The generation of waste should be minimised or avoided wherever possible.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

UN number

UN No. (ADR/RID) 1993

UN No. (IMDG) 1993

UN No. (ICAO) 1993

UN No. (ADN) 1993

UN proper shipping name

Proper shipping name (ADR/RID) FLAMMABLE LIQUID, N.O.S. (CONTAINS BUTYL GLYCIDYL ETHER, reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))

Proper shipping name (IMDG) FLAMMABLE LIQUID, N.O.S. (CONTAINS BUTYL GLYCIDYL ETHER, reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))

LAPKON LV BASE (PART-A)

Proper shipping name (ICAO) FLAMMABLE LIQUID, N.O.S. (CONTAINS BUTYL GLYCIDYL ETHER, reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))

Proper shipping name (ADN) FLAMMABLE LIQUID, N.O.S. (CONTAINS BUTYL GLYCIDYL ETHER, reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))

Transport hazard class(es)

ADR/RID class	3
ADR/RID classification code	F1
ADR/RID label	3
IMDG class	3
ICAO class/division	3
ADN class	3

Transport labels



Packing group

ADR/RID packing group	III
IMDG packing group	III
ICAO packing group	III
ADN packing group	III

Environmental hazards

Environmentally hazardous substance/marine pollutant



Special precautions for user

EmS	F-E, S-E
ADR transport category	3
Emergency Action Code	•3W
Hazard Identification Number (ADR/RID)	30
Tunnel restriction code	(D/E)

Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

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

National regulations The Manufacture, storage and import of hazardous chemicals rules 1989.

LAPKON LV BASE (PART-A)

EU legislation	Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Guidance	Workplace Exposure Limits EH40. Safety Data Sheets for Substances and Preparations.

Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet	DMEL: Derived Minimal Effect Level. DNEL: Derived No Effect Level.
General information	For professional use only. Only trained personnel should use this material.
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	14/10/2019
Revision	4A
Supersedes date	07/12/2015
SDS number	23565
Hazard statements in full	H226 Flammable liquid and vapour. H302 Harmful if swallowed. 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. H341 Suspected of causing genetic defects. H351 Suspected of causing cancer. H411 Toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects.

The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.

SAFETY DATA SHEET
LAPKON LV HARDENER
(PART-B)

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

Product identifier

Product name LAPKON LV HARDENER (PART-B)

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

Identified uses Hardener component of two part epoxy system.

1.3. Details of the supplier of the safety data sheet

Supplier **SILKON ADDITIVES INDIA PVT LTD.**
622-P, SECTOR-38 GURUGRAM
HARYANA-122001
 18001236299 / 9717887038

1.4. Emergency telephone number

Emergency telephone 18001236299 / 9717887038

SECTION 2: Hazards identification

Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Acute Tox. 4 - H302 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317

Environmental hazards Aquatic Chronic 2 - H411

Label elements

Hazard pictograms



Signal word

Danger

Hazard statements

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

Precautionary statements

P270 Do not eat, drink or smoke when using this product.
 P273 Avoid release to the environment.
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P501 Dispose of contents/ container in accordance with national regulations.

LAPKON LV HARDENER (PART-B)

Contains	FATTY ACIDS, TALL OIL, OLIGOMERIC REACTION PRODUCTS WITH TETRAETHYLENE PENTAMINE, ISOPHORONEDIAMINE, 2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL
Supplementary precautionary statements	<p>P260 Do not breathe vapour/ spray. P261 Avoid breathing vapour/ spray. P264 Wash contaminated skin thoroughly after handling. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301+P312 IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell. P302+P352 IF ON SKIN: Wash with plenty of water. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P310 Immediately call a POISON CENTER/ doctor. P321 Specific treatment (see medical advice on this label). P333+P313 If skin irritation or rash occurs: Get medical advice/ attention. P362+P364 Take off contaminated clothing and wash it before reuse. P363 Wash contaminated clothing before reuse. P391 Collect spillage. P405 Store locked up.</p>

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

FATTY ACIDS, TALL OIL, OLIGOMERIC REACTION PRODUCTS WITH TETRAETHYLENE PENTAMINE	30-60%
CAS number: 68953-36-6 EC number: 203-986-2	
Classification Skin Sens. 1 - H317 Aquatic Chronic 2 - H411	
ISOPHORONEDIAMINE	10-30%
CAS number: 2855-13-2 EC number: 220-666-8	REACH registration number: 01-2119514687-32-xxxx
Classification Acute Tox. 4 - H302 Acute Tox. 4 - H312 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Aquatic Chronic 3 - H412	

LAPKON LV HARDENER (PART-B)

TETRAETHYLENEPENTAMINE	5-10%
CAS number: 112-57-2	EC number: 203-986-2
Classification Acute Tox. 4 - H302 Acute Tox. 4 - H312 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411	
2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL	5-10%
CAS number: 90-72-2	EC number: 202-013-9
	REACH registration number: 01-2119560597-27
Classification Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

Description of first aid measures

General information	Consult a physician for specific advice.
Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.
Ingestion	Rinse mouth thoroughly with water. Do not induce vomiting.
Skin contact	Rinse immediately with plenty of water. Continue to rinse for at least 10 minutes. Eye
contact	Rinse with water. Continue to rinse for at least 15 minutes and get medical attention.

Most important symptoms and effects, both acute and delayed

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	Dizziness. Difficulty in breathing.
Ingestion	May cause discomfort. May cause stomach pain or vomiting.
Skin contact	May cause allergic reaction as well as serious Skin burns.
Eye contact	Can cause serious Eye damage if come in contact

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.
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SECTION 5: Firefighting measures

Suitable extinguishing media	The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

LAPKON LV HARDENER (PART-B)

Special hazards arising from the substance or mixture

Specific hazards	Water used for fire extinguishing, which has been in contact with the product, may be corrosive. No unusual fire or explosion hazards noted.
Hazardous combustion products	No known hazardous decomposition products.
<u>Advice for firefighters</u>	No specific firefighting precautions known.
Protective actions during firefighting	Use protective equipment appropriate for surrounding materials.
Special protective equipment for firefighters	

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with eyes and prolonged skin contact. Do not touch or walk into spilled material. **6.2.**

Environmental precautions

Environmental precautions Collect and dispose of spillage as indicated in Section 13. Do not discharge into drains or watercourses or onto the ground.

Methods and material for containment and cleaning up

Methods for cleaning up Absorb in vermiculite, dry sand or earth and place into containers. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Collect and dispose of spillage as indicated in Section 13.

Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Usage precautions	Avoid contact with skin and eyes. Change contaminated clothing. Do not eat, drink or smoke when using this product.
Advice on general occupational hygiene	Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

Conditions for safe storage, including any incompatibilities

Storage precautions	Store in tightly-closed, original container in a dry, cool and well-ventilated place.
Storage class	Corrosive storage.

Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

Control parameters

Ingredient comments WEL = Workplace Exposure Limits

ISOPHORONEDIAMINE (CAS: 2855-13-2)

LAPKON LV HARDENER (PART-B)

PNEC	- marine water; 0.006 mg/l - Fresh water; 0.06 mg/l - Soil; 1.121 mg/kg
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TETRAETHYLENEPENTAMINE (CAS: 112-57-2)

DNEL	Workers - Dermal; Long term systemic effects: 0.74 mg/kg bw/day Workers - Inhalation; Long term systemic effects: 1.29 mg/m ³
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Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation.

Personal protection

Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

Eye/face protection

Wear tight-fitting, chemical splash goggles or face shield. (conform EN 166) **Hand**

Other skin and body protection

Nitrile gloves are recommended.

Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene measures

Do not eat, drink or smoke when using this product.

Respiratory protection

Gas filter, type A2.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Clear liquid.
Colour	Colourless.
Odour	Amine Like
Initial boiling point and range	>230°C
Flash point	> 100°C Closed cup.
Vapour density	< 0.01 Pa (at 20 °C)
Relative density	0.950 @ 23 C
Solubility(ies)	Soluble in water.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising. 9.2.

Other information

Other information	Not determined.
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SECTION 10: Stability and reactivity

10.1. Reactivity

LAPKON LV HARDENER (PART-B)

Reactivity	The following materials may react with the product: Acids. Alkalis. <u>10.2.</u>
<u>Chemical stability</u>	
Stability	Stable at normal ambient temperatures and when used as recommended.
<u>10.3. Possibility of hazardous reactions</u>	
Possibility of hazardous reactions	Under normal conditions of storage and use, no hazardous reactions will occur.
<u>10.4. Conditions to avoid</u>	
Conditions to avoid	Avoid excessive heat for prolonged periods of time.
<u>10.5. Incompatible materials</u>	
Materials to avoid	Strong acids. Strong alkalis. Strong oxidising agents.
<u>10.6. Hazardous decomposition products</u>	
Hazardous decomposition products	Does not decompose when used and stored as recommended.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 1,356.15

Acute toxicity - dermal

ATE dermal (mg/kg) 3,425.92

Inhalation	Dizziness. Difficulty in breathing.
Ingestion	May cause discomfort. May cause stomach pain or vomiting.
Skin contact	May cause allergic reaction as well as serious skin burns
Eye contact	Can cause serious Eye damage if come in contact.
Target organs	Eyes, Lungs, Respiratory, Skin.

Toxicological information on ingredients.

ISOPHORONEDIAMINE

Acute toxicity - oral

Acute toxicity oral 1,030.0
(LD₅₀ mg/kg)

Species Rat

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

Acute toxicity dermal 1,840.0
(LD₅₀ mg/kg)

Species Rabbit

ATE dermal (mg/kg) 1,100.0

**LAPKON LV HARDENER
(PART-B)**

TETRAETHYLENEPENTAMINE

Acute toxicity - oral

Acute toxicity oral
(LD₅₀ mg/kg) 2,000.0

Species Rat

ATE oral (mg/kg) 2,000.0

Acute toxicity - dermal

Acute toxicity dermal
(LD₅₀ mg/kg) 1,500.0

Species Rabbit

ATE dermal (mg/kg) 1,500.0

2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL

Acute toxicity - oral

ATE oral (mg/kg) 500.0

SECTION 12: Ecological information

12.1. Toxicity

Toxicity Expected to be ecotoxic to fish/daphnia/algae.

Ecological information on ingredients.

FATTY ACIDS, TALL OIL, OLIGOMERIC REACTION PRODUCTS WITH TETRAETHYLENE PENTAMINE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 2.6 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 0.3-4.2 mg/l, Daphnia magna

EC₅₀, 96 hours: 1.1-2.2 mg/l, Algae

Acute toxicity - aquatic plants

ISOPHORONEDIAMINE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 110 mg/l, Fish

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 23 mg/l, Daphnia magna

IC₅₀, 72 hours: 50 mg/l, Algae

Acute toxicity - aquatic plants

TETRAETHYLENEPENTAMINE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: >100 mg/l, Poecilia reticulata (Guppy)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 10-100 mg/l, Daphnia magna

Acute toxicity - aquatic plants

LAPKON LV HARDENER (PART-B)

2.4.6-TRIS(DIMETHYLAMINOMETHYL)PHENOL

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 175 mg/l, Cyprinus carpio (Common carp)

12.2. Persistence and degradability

Persistence and degradability Expected to be not readily biodegradable.

Ecological information on ingredients.

ISOPHORONEDIAMINE

Persistence and degradability The product is not readily biodegradable.

Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Ecological information on ingredients.

ISOPHORONEDIAMINE

Bioaccumulative potential The product does not contain any substances expected to be bioaccumulating.

Partition coefficient log Kow: 0.99

Mobility in soil

Mobility Soluble in water.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information The generation of waste should be minimised or avoided wherever possible.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

UN number

UN No. (ADR/RID) 2735

UN No. (IMDG) 2735

UN No. (ICAO) 2735

UN No. (ADN) 2735

UN proper shipping name

Proper shipping name (ADR/RID) POLYAMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS ISOPHORONEDIAMINE, FATTY ACIDS, TALL OIL, OLIGOMERIC REACTION PRODUCTS WITH TETRAETHYLENE PENTAMINE)

LAPKON LV HARDENER (PART-B)

Proper shipping name (IMDG) POLYAMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS ISOPHORONEDIAMINE, FATTY ACIDS, TALL OIL, OLIGOMERIC REACTION PRODUCTS WITH TETRAETHYLENE PENTAMINE , TETRAETHYLENEPENTAMINE)

Proper shipping name (ICAO) POLYAMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS ISOPHORONEDIAMINE, FATTY ACIDS, TALL OIL, OLIGOMERIC REACTION PRODUCTS WITH TETRAETHYLENE PENTAMINE)

Proper shipping name (ADN) POLYAMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS ISOPHORONEDIAMINE, FATTY ACIDS, TALL OIL, OLIGOMERIC REACTION PRODUCTS WITH TETRAETHYLENE PENTAMINE)

Transport hazard class(es)

ADR/RID class	8
ADR/RID classification code	C7
ADR/RID label	8
IMDG class	8
ICAO class/division	8
ADN class	8

Transport labels



Packing group

ADR/RID packing group	II
IMDG packing group	II
ICAO packing group	II
ADN packing group	II

Environmental hazards

Environmentally hazardous substance/marine pollutant



Special precautions for user

IMDG Code segregation group	18. Alkalis
EmS	F-A, S-B
ADR transport category	2
Emergency Action Code	2X
Hazard Identification Number (ADR/RID)	80
Tunnel restriction code	(E)

Transport in bulk according to Annex II of MARPOL and the IBC Code

LAPKON LV HARDENER (PART-B)

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

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

National regulations	The Manufacture, storage and import of hazardous chemicals rules 1989.
EU legislation	Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet	IARC: International Agency for Research on Cancer. IATA: International Air Transport Association.
General information	For professional use only. Only trained personnel should use this material.
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	24/10/2019
Revision	4A
Supersedes date	07/12/2015
SDS number	23566
Hazard statements in full	H302 Harmful if swallowed. H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. H411 Toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects.

The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.