Safety Data Sheet

LINERWASTE Hardener Medium

Revision date: 06/03/2025
Version: 1.0.1

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

1.1. Product identifier

Trade name: LINERWASTE Hardener Medium

UFI: FJTY-XXFP-VR3E-W5E9

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

Recommended uses: Hardener for epoxy resin.

1.3. Details of the supplier of the safety data sheet

Supplier

Company:	Linervent AB
Address:	Bryggavägen 117
Zip code:	178 31
City:	Ekerö
Country:	SWEDEN
Email:	info@linervent.se

1.4. Emergency Telephone Number

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

CLP-classification:
Acute Tox. 4;H302
Skin Corr. 1A;H314
Skin Sens. 1;H317
Eye Dam. 1;H318
Aquatic Chronic 3;H412

Most serious harmful effects: Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Harmful to aquatic life with long lasting effects.

2.2. Label elements

Pictograms

Signal word: Danger

Contains

Substance: 1,3-cyclohexanedimethanamine; Cashew, nutshell liq.;

Hazard Statements

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P273	Avoid release to the environment.
P301+330+331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+361+353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+351+338+310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local regulation.

2.3. Other hazards

When mixing two components, consult the safety data sheets for both components.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Substance	CAS No./ EC No./ REACH Reg. No.	Concentration	Notes	CLP-classification
1,3-cyclohexanedimethanamine	2579-20-6 219-941-5 01-2119543741-41	60 - 100 %		Acute Tox. 4;H302 Acute Tox. 4;H312 Skin Corr. 1A;H314 Eye Dam. 1;H318 Aquatic Chronic 3;H412 LD50 (Acute toxicity - oral): 300 - 2000 mg/kg bw LD50 (Acute toxicity - dermal): 1700 mg/kg bw
Cashew, nutshell liq.	8007-24-7 700-991-6 01-2119502450-57	10 - 30 %		Acute Tox. 4;H302 Acute Tox. 4;H312 Skin Irrit. 2;H315 Skin Sens. 1;H317 Eye Dam. 1;H318 LD50 (Acute toxicity - dermal): 2000 mg/kg bw LD50 (Acute toxicity - oral): 2000 mg/kg bw

Please see section 16 for the full text of H- / EUH-phrases.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:	Seek fresh air. Seek medical advice in case of persistent discomfort.
Ingestion:	Wash out mouth thoroughly and drink 1-2 glasses of water in small sips. Do not induce vomiting. Seek medical advice immediately.
Skin contact:	Wash skin with soap and water. Do not use organic solvents. Take off contaminated clothing and wash before reuse. Seek medical advice in case of persistent discomfort.
Eye contact:	Open eye wide, remove any contact lenses and flush immediately with water (preferably using eye wash equipment). Seek medical advice immediately. Continue flushing until medical attention is obtained.
General:	Eye wash facilities must be available when handling this product.

4.2. Most important symptoms and effects, both acute and delayed

May cause serious, possibly permanent, corrosion damage to the eyes. The product is corrosive.

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

Open eye wide, remove any contact lenses and flush immediately with water (preferably using eye wash equipment). Seek medical advice immediately. Continue flushing until medical attention is obtained.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:	Extinguish with powder, foam, carbon dioxide or water mist.
Unsuitable extinguishing media:	Do not use water stream, as it may spread the fire.

5.2. Special hazards arising from the substance or mixture

Not flammable, but can sustain combustion. Hazardous flue gases are formed in fire conditions. Nitrous gases/ Carbon monoxide and carbon dioxide.

5.3. Advice for firefighters

Firefighters exposed to combustion gases/decomposition products should use a respiratory protective device

Other Information:	Notify proper authorities in case of contamination of soil or aquatic environment or discharge to drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:	Keep unnecessary people away, isolate hazard area and deny entry. Wear suitable protective clothing. Wear safety goggles if there is a risk of eye splash.

6.2. Environmental precautions

Prevent spillage from entering drains and/or surface water. Notify proper authorities in case of contamination of soil or aquatic environment or discharge to drains.

6.3. Methods and material for containment and cleaning up

Contain and absorb spill with sand or other absorbent material and transfer to suitable waste containers.

6.4. Reference to other sections

See section 7 for handling and storage. See section 8 for type of protective equipment. See section 13 for instructions on disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Containers should be kept tightly closed. Eye wash facilities must be available when handling this product. Avoid contact with skin and eyes. All work must be carried out under well-ventilated conditions. Wash hands before breaks, before using restroom facilities, and at the end of work. Do not eat, drink or smoke during work.

7.2. Conditions for safe storage, including any incompatibilities

Keep in tightly closed original packaging. Store in a dry, cool, well-ventilated area.

7.3. Specific end use(s)

The product is corrosive. Polymerise together with part A during heat emission.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit: Contains no substances subject to reporting requirements.

Legal basis: Not known for the mixture.

8.2. Exposure controls

Personal protective equipment, eye/face protection: Wear safety goggles/face protection. Eye protection must conform to EN 16321.

Personal protective equipment, skin protection: Wear suitable protective clothing.

Personal protective equipment, hand protection: Wear gloves. Type of material: Nitrile rubber/ Butyl rubber. Penetration time of glove material: 3 hours. We have reduced the penetration time by a factor of 3, when the test standard EN 374-3 is done at 23°C, while the temperature inside the glove is approx. 35°C.In addition, the elastic material extends during use, thereby glove thickness and penetration time is reduced. Recommended thickness of the glove is ≥ 0.4 mm. Selection of the suitable gloves does not only depend on the material, but also on quality and these will vary between manufacturers.

Personal protective equipment, respiratory protection: In case of insufficient ventilation, wear respiratory protective equipment. Gas cartridge (organic substances).

Other Information: Wash hands before breaks, before using restroom facilities, and at the end of work. Take off contaminated clothing and wash before reuse.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Parameter	Value/unit
State	Liquid
Colour	Yellow
Odour	Amine odour
Solubility	Miscible with the following: Organic solvents.

Parameter	Value/unit	Remarks
Odour threshold	No data	
Melting point	No data	
Freezing point	No data	
Initial boiling point and boiling range	> 150 °C	760mmHg
Flammability (solid, gas)	No data	
Flammability limits	No data	
Explosion limits	No data	

Flash Point	> 150 °C	
Auto-ignition temperature	> 150 °C	
Decomposition temperature:	No data	
pH (solution for use)	No data	
pH (concentrate)	No data	
Kinematic viscosity	No data	
Viscosity	~ 0.5 Pas	25°C
Partition coefficient n-octonol/water	No data	
Vapour pressure	No data	
Density	0,95 g/cm³	20°C
Relative density	No data	
Relative vapour density	No data	
Relative density (sat. air)	No data	
Particle characteristics	No data	

9.2. Other information

Parameter	Value/unit	Remarks

SECTION 10: Stability and reactivity

10.1. Reactivity

No known data.

10.2. Chemical stability

The product is stable when used in accordance with the supplier's directions.

10.3. Possibility of hazardous reactions

May react under considerable heat buildup with epoxy.

10.4. Conditions to avoid

Avoid contact with the following: Oxidisers/ Strong acids.

10.5. Incompatible materials

Organic peroxide.

10.6. Hazardous decomposition products

Hazardous flue gases are formed in fire conditions. Nitrous gases/ Carbon monoxide and carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity - oral

1,3-cyclohexanedimethanamine, cas-no 2579-20-6

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rat	LD50		300 - 2000 mg/kg bw			

Cashew, nutshell liq., cas-no 8007-24-7

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rat	LD50		2000 mg/kg bw			

May give burning effects in mouth, throat and stomach.

Acute toxicity - dermal

1,3-cyclohexanedimethanamine, cas-no 2579-20-6

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rabbit	LD50		1700 mg/kg bw			

Cashew, nutshell liq., cas-no 8007-24-7

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rat	LD50		2000 mg/kg bw			

Skin contact may cause irritation, redness and burns.

Acute toxicity - inhalation: The amines in the hardener have a very low vapour pressure, but inhalation of high concentrations may cause irritation of mucous membranes, headache and nausea.

Skin corrosion/irritation: The product is corrosive.

Serious eye damage/eye irritation: Eye contact may result in deep caustic burns, pain, tearing and cramping of the eyelids. Risk of serious eye injury and loss of sight.

11.2. Information on other hazards

Endocrine disrupting properties: None known.

SECTION 12: Ecological information

12.1. Toxicity

1,3-cyclohexanedimethanamine, cas-no 2579-20-6

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
Fish	Leuciscus idus	96h	LC50	130 mg/l			
Crustacea	Daphnia magna	48h	EC50	65.4 mg/l			

Cashew, nutshell liq., cas-no 8007-24-7

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
Fish			LL50	1.0 mg/l			
Algae			EC50	1.3 mg/l			

No results from ecotoxicological tests are available. Ecotoxicological information only related to components.

12.2. Persistence and degradability

Test data are not available.

12.3. Bioaccumulative potential

Test data are not available.

12.4. Mobility in soil

Test data are not available.

12.5. Results of PBT and vPvB assessment

Not applicable

12.6. Endocrine disrupting properties

None known.

12.7. Other adverse effects

May change the pH of the water. Harmful to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

If this product as supplied becomes a waste, it meets the criteria of a hazardous waste (Dir. 2008/98/EU). Collect spills and waste in closed, leak-proof containers for disposal at the local hazardous waste site.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number:	3267	**14.4. Packing group:**	I
14.2. UN proper shipping name:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (1,3-cyclohexanedimethanamine)	**14.5. Environmental hazards:**	The product should not be labelled as an environmental hazard (symbol: fish and tree).
14.3. Transport hazard class(es):	8		
Hazard label(s):	8		
Hazard identification number:	88	**Tunnel restriction code:**	E

Inland water ways transport (ADN)

14.1. UN number or ID number:	3267	**14.4. Packing group:**	I
14.2. UN proper shipping name:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (1,3-cyclohexanedimethanamine)	**14.5. Environmental hazards:**	The product should not be labelled as an environmental hazard (symbol: fish and tree).
14.3. Transport hazard class(es):	8		
Hazard label(s):	8		
Transport in tank vessels:			

Sea transport (IMDG)

14.1. UN number or ID number:	3267	**14.4. Packing group:**	I
14.2. UN proper shipping name:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (1,3-cyclohexanedimethanamine)	**14.5. Environmental hazards:**	The product is not a Marine Pollutant (MP).
14.3. Transport hazard class(es):	8	**Environmental Hazardous Substance Name(s):**	
Hazard label(s):	8		
EmS:	F-A, S-B	**IMDG Code segregation group:**	Segr. grp. 18 - Alkalis (SGG18)

Air transport (ICAO-TI / IATA-DGR)

14.1. UN number or ID number:	3267	**14.4. Packing group:**	I
14.2. UN proper shipping name:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (1,3-cyclohexanedimethanamine)	**14.5. Environmental hazards:**	The product should not be labelled as an environmental hazard (symbol: fish and tree).
14.3. Transport hazard class(es):	8		
Hazard label(s):	8		

14.6. Special precautions for user

None.

14.7. Maritime transport in bulk according to IMO instruments

Not applicable.

SECTION 15: Regulatory information

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

Special Provisions: This product is assessed and classified in accordance with the requirements of the European Parliament and Council Regulation (EC) No 1272/2008 and subsequent amendments.

15.2. Chemical Safety Assessment

Other Information: Chemical safety assessment has not been performed.

SECTION 16: Other information

Version history and indication of changes

Version	Revision date	Responsible	Changes
1.0.1	06/03/2025	Linervent AB	New formula
1.0.0	30/03/2023	Linervent AB	Approved

Abbreviations: ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)IMDG: International Maritime Code for Dangerous GoodsIATA: International Air Transport AssociationIATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)ICAO: International Civil Aviation OrganizationICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)GHS: Globally Harmonized System of Classification and Labelling of ChemicalsEINECS: European Inventory of Existing Commercial Chemical SubstancesCAS: Chemical Abstracts Service (division of the American Chemical Society)DNEL: Derived No-Effect Level (REACH)PNEC: Predicted No-Effect Concentration (REACH)LC50: Lethal concentration, 50 percentLD50: Lethal dose, 50 percent

Other Information: The information contained herein is based on the best of our knowledge and shall describe our product under the aspect of safety. They are not meant to guarantee specific properties of the product. Recipients of our product must take responsibility for observing existing laws and regulations.

Classification method: Calculation based on the hazards of the known components.

Hazard statements

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.
H412 Harmful to aquatic life with long lasting effects.

Country: EU