

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Issue date: 11/5/2020 Version: 1.0

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

1.1. Product identifier

Product form : Mixture

Product name : EPOXY RESIN HARDENER

Product code : B-308 B

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

1.2.1. Relevant identified uses

Main use category Industrial use

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer

LEAN MAKINE KIMYA SAN.ve TiC.A.Ş. KALE MAH.278 SK. NO:3/Z1 PAMUKKALE / DENIZLI T +90 (258) 267 24 84

info@leankimya.com - www.leankimya.com

1.4. Emergency telephone number

Emergency number : +90 (258) 267 24 84

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

H302 Acute toxicity (oral), Category 4 Skin corrosion/irritation, Category 1, Sub-Category 1B H314 Serious eye damage/eye irritation, Category 1 H318 Skin sensitisation, Category 1 H317 Specific target organ toxicity — Repeated exposure, Category 2 H373 Hazardous to the aquatic environment — Chronic Hazard, Category 3

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

May cause damage to organs through prolonged or repeated exposure. Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. Harmful to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)





GHS05

GHS07

Signal word (CLP)

: Danger Contains

: 3-aminomethyl-3,5,5-trimethylcyclohexylamine; Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-(2aminomethylethyl)-.omega.-(2-aminomethylethoxy)-; TETA; 2,2'-iminodiethylamine;

diethylenetriamine; benzyl alcohol

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Hazard statements (CLP) : H302 - Harmful if swallowed.

H314 - Causes severe skin burns and eye damage.

H317 - May cause an allergic skin reaction.

H373 - May cause damage to organs through prolonged or repeated exposure.

 $\ensuremath{\mathsf{H412}}$ - Harmful to a quatic life with long lasting effects.

Precautionary statements (CLP) : P260 - Do not breathe dust/fume/gas/mist/vapours/spray.

P264 - Wash hands, forearms and face thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

P272 - Contaminated work clothing should not be allowed out of the workplace.

P273 - Avoid release to the environment.

P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing

protection.

P301+P312 - IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell.

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

P302+P352 - IF ON SKIN: Wash with plenty of water.

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water.

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

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

contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a POISON CENTER or doctor.

P314 - Get medical advice/attention if you feel unwell.

P321 - Specific treatment (see supplemental first aid instruction on this label).

P330 - Rinse mouth.

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

P362+P364 - Take off contaminated clothing and wash it before reuse.

P405 - Store locked up.

P501 - Dispose of contents/container to hazardous or special waste collection point, in

accordance with local, regional, national and/or international regulation.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
TETA	(CAS-No.) 90640-67-8 (EC-No.) 292-588-2	28	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Corr. 1, H314 Skin Sens. 1, H317 STOT RE 2, H373 Aquatic Chronic 3, H412
benzyl alcohol	(CAS-No.) 100-51-6 (EC-No.) 202-859-9 (EC Index-No.) 603-057-00-5	26	Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Oral), H302
Poly[oxy(methyl-1,2-ethanediyl)], .alpha(2-aminomethylethyl)omega(2-aminomethylethoxy)-	(CAS-No.) 9046-10-0 (EC-No.) 618-561-0	20	Acute Tox. 3 (Oral), H301 Skin Corr. 1, H314 Aquatic Chronic 3, H412
2,2'-iminodiethylamine; diethylenetriamine	(CAS-No.) 111-40-0 (EC-No.) 203-865-4 (EC Index-No.) 612-058-00-X	14	Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Skin Sens. 1, H317

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3-aminomethyl-3,5,5-trimethylcyclohexylamine	(CAS-No.) 2855-13-2	12	Acute Tox. 4 (Dermal), H312
	(EC-No.) 220-666-8		Acute Tox. 4 (Oral), H302
	(EC Index-No.) 612-067-00-9		Skin Corr. 1B, H314
			Skin Sens. 1, H317
			Aquatic Chronic 3, H412

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a

physician immediately.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy

to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects after skin contact : Burns. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Serious damage to eyes.

Symptoms/effects after ingestion : Burns.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained

breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact

with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information

refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.

Other information : Dispose of materials or solid residues at an authorized site.

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6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Do not breathe

dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes. Wear personal

protective equipment.

Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be

allowed out of the workplace. Do not eat, drink or smoke when using this product. Always

wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Personal protective equipment:

Corrosionproof clothing. Dust/aerosol mask with filter type P1. Gloves.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):









Environmental exposure controls:

Avoid release to the environment.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Colour : No data available Odour : No data available Odour threshold : No data available рΗ : No data available Relative evaporation rate (butylacetate=1) : No data available Melting point : Not applicable Freezing point : No data available Boiling point : No data available Flash point : No data available : No data available Auto-ignition temperature : No data available Decomposition temperature Flammability (solid, gas) : Not applicable : No data available Vapour pressure Relative vapour density at 20 °C : No data available Relative density : No data available Solubility : No data available Partition coefficient n-octanol/water (Log Pow) : No data available Viscosity, kinematic : No data available Viscosity, dynamic : No data available Explosive properties : No data available

9.2. Other information

Oxidising properties

Explosive limits

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

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

: No data available

: No data available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

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EPOXY RESIN HARDENER	
ATE CLP (oral)	412.125 mg/kg bodyweight

Poly[oxy(methyl-1,2-ethanediyl)], .alpha(2-aminomethylethyl)omega(2-aminomethylethoxy)- (9046-10-0)		
LD50 oral rat	242 mg/kg	
LD50 dermal rabbit	2980 mg/kg	

Skin corrosion/irritation : Causes severe skin burns. Serious eye damage/irritation : Causes serious eye damage. Respiratory or skin sensitisation : May cause an allergic skin reaction.

: Not classified Germ cell mutagenicity Carcinogenicity : Not classified

TETA (90640-67-8)	
NOAEL (chronic, oral, animal/male, 2 years)	≥ 42 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 451 (Carcinogenicity Studies), Remarks on results: other:Effect type: toxicity (migrated information)

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

TETA (90640-67-8)	
	50 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
NOAEL (oral, rat, 90 days)	50 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

: Harmful to aquatic life with long lasting effects. Ecology - general

Hazardous to the aquatic environment, short-term : Not classified

(acute)

Hazardous to the aquatic environment, long-term

(chronic)

Not rapidly degradable

Harmiui to aquatic	life with long	iasting effects.

TETA (90640-67-8)	
LC50 fish 1	330 mg/l Test organisms (species): Pimephales promelas
EC50 Daphnia 1	31.1 mg/l Test organisms (species): Daphnia magna
EC50 72h algae (1)	20 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)

12.2. Persistence and degradability

No additional information available

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12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Waste Management Regulation published in the Official Journal numbered 29314 on April

2, 2015.

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
UN 1760	UN 1760	UN 1760	UN 1760	UN 1760
14.2. UN proper shippin	g name			
CORROSIVE LIQUID, N.O.S.	CORROSIVE LIQUID, N.O.S.	Corrosive liquid, n.o.s.	CORROSIVE LIQUID, N.O.S.	CORROSIVE LIQUID, N.O.S.
Transport document descr	iption			
UN 1760 CORROSIVE LIQUID, N.O.S., 8, II, (E)	UN 1760 CORROSIVE LIQUID, N.O.S., 8, II	UN 1760 Corrosive liquid, n.o.s., 8, II	UN 1760 CORROSIVE LIQUID, N.O.S., 8, II	UN 1760 CORROSIVE LIQUID, N.O.S., 8, II
14.3. Transport hazard	class(es)			
8	8	8	8	8
B	8	a Action	8	B
14.4. Packing group	14.4. Packing group			
II	II	II	II	II
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information	No supplementary information available			

14.6. Special precautions for user

Overland transport

Classification code (ADR) : C9
Special provisions (ADR) : 274

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Limited quantities (ADR) : 11

Excepted quantities (ADR) : E2

Packing instructions (ADR) : P001, IBC02

Mixed packing provisions (ADR) : MP15

Portable tank and bulk container instructions (ADR) : T11

Portable tank and bulk container special provisions : TP2, TP27

(ADR)

Tank code (ADR) : L4BN
Vehicle for tank carriage : AT
Transport category (ADR) : 2
Hazard identification number (Kemler No.) : 80

Orange plates

80 1760

Tunnel restriction code (ADR) : E EAC code : 2X APP code : B

Transport by sea

Special provisions (IMDG) : 274 Limited quantities (IMDG) : 1L : E2 Excepted quantities (IMDG) : P001 Packing instructions (IMDG) : IBC02 IBC packing instructions (IMDG) : T11 Tank instructions (IMDG) Tank special provisions (IMDG) : TP2, TP27 EmS-No. (Fire) : F-A EmS-No. (Spillage) : S-B Stowage category (IMDG) В : SW2 Stowage and handling (IMDG)

Properties and observations (IMDG) : Causes burns to skin, eyes and mucous membranes.

Air transport

PCA Excepted quantities (IATA) : E2 : Y840 PCA Limited quantities (IATA) PCA limited quantity max net quantity (IATA) : 0.5L PCA packing instructions (IATA) : 851 : 1L PCA max net quantity (IATA) CAO packing instructions (IATA) : 855 CAO max net quantity (IATA) : 30L Special provisions (IATA) : A3, A803 ERG code (IATA)

Inland waterway transport

Classification code (ADN) : C9
Special provisions (ADN) : 274
Limited quantities (ADN) : 1 L
Excepted quantities (ADN) : E2
Equipment required (ADN) : PP, EP
Number of blue cones/lights (ADN) : 0

Rail transport

Classification code (RID) : C9
Special provisions (RID) : 274
Limited quantities (RID) : 1L
Excepted quantities (RID) : E2
Packing instructions (RID) : P001, IBC02
Mixed packing provisions (RID) : MP15
Portable tank and bulk container instructions (RID) : T11
Portable tank and bulk container special provisions : TP2, TP27

(RID)

Tank codes for RID tanks (RID) : L4BN
Transport category (RID) : 2
Colis express (express parcels) (RID) : CE6
Hazard identification number (RID) : 80

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14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:		
Reference code	Applicable on	Entry title or description
3(b)	EPOXY RESIN HARDENER; 3- aminomethyl-3,5,5-trimethylcyclohexylamine; Poly[oxy(methyl-1,2-ethanediyl)], .alpha (2-aminomethylethyl)omega(2- aminomethylethoxy)-; TETA; 2,2'- iminodiethylamine; diethylenetriamine; benzyl alcohol	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
3(c)	EPOXY RESIN HARDENER; 3- aminomethyl-3,5,5-trimethylcyclohexylamine; Poly[oxy(methyl-1,2-ethanediyl)], .alpha (2-aminomethylethyl)omega(2- aminomethylethoxy)-; TETA	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

: Observe restrictions according Act on the Protection of Working Mothers (MuSchG) **Employment restrictions** Observe restrictions according Act on the Protection of Young People in Employment

(JArbSchG)

Water hazard class (WGK) : WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1)

Hazardous Incident Ordinance (12. BlmSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

ABM category : A(3) - hazardous for aquatic organisms, may have longterm hazardous effects in aquatic

environment

SZW-lijst van kankerverwekkende stoffen TETA is listed

SZW-lijst van mutagene stoffen : TETA is listed

NIET-limitatieve lijst van voor de voortplanting

giftige stoffen - Borstvoeding

NIET-limitatieve lijst van voor de voortplanting

giftige stoffen - Vruchtbaarheid

NIET-limitatieve lijst van voor de voortplanting

giftige stoffen - Ontwikkeling

: None of the components are listed : None of the components are listed

: None of the components are listed

Denmark

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product

> Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

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SECTION 16: Other information

Abbreviations and acronyms:		
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways	
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road	
ATE	Acute Toxicity Estimate	
BLV	Biological limit value	
CAS-No.	Chemical Abstract Service number	
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008	
DMEL	Derived Minimal Effect level	
DNEL	Derived-No Effect Level	
EC50	Median effective concentration	
EC-No.	European Community number	
EN	European Standard	
IATA	International Air Transport Association	
IMDG	International Maritime Dangerous Goods	
LC50	Median lethal concentration	
LD50	Median lethal dose	
LOAEL	Lowest Observed Adverse Effect Level	
NOAEC	No-Observed Adverse Effect Concentration	
NOAEL	No-Observed Adverse Effect Level	
NOEC	No-Observed Effect Concentration	
OEL	Occupational Exposure Limit	
PBT	Persistent Bioaccumulative Toxic	
PNEC	Predicted No-Effect Concentration	
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006	
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail	
SDS	Safety Data Sheet	
vPvB	Very Persistent and Very Bioaccumulative	
WGK	Water Hazard Class	

Data sources

: ECHA (European Chemicals Agency). Classification according to Classification, Labelling and Packaging of Substances and Mixtures (SEA) Regulation published in the Official Journal numbered 28848 on December 11, 2013. Supplier's safety documents.

Full text of H- and EUH-statements:	
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Skin Corr. 1	Skin corrosion/irritation, Category 1

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Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

The classification complies with : ATP 12

SDS EU (REACH Annex II)

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