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EPOXY MIX 130 component B

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

1.1 Product Identifier

Commercial name : EPOXY MIX 130 component B

UFI : CF30-6014-F00U-48TE

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

Type of application (use) : Adhesive

Usage Restrictions recommended : For industrial use only.

1.3 Details of the supplier of the safety data sheet

Company : CECCHI GUSTAVO & C. Srl
Via M. Coppino 253 - 55049
Viareggio (LU) ITALY

Telephone : +39 0584 383694

SDS manager's email address : info@cecchi.it

1.4 Emergency telephone number

+ 44 1235 239670 (All languages)

CAVp “Hosp. Pediatric Bambino Gesù” Rome Piazza Sant'Onofrio, 4 00165 Tel.06-68593726
Az. Osp. Univ. Foggia Foggia V.le Luigi Pinto, 1 71122 Tel.0881-732326
Hospital "A. Cardarelli" Naples Via A. Cardarelli, 9 80131 Tel.081-7472870 CAV Policlinico "Umberto I" Rome Viale del Policlinico, 155 00161 Tel.06-49978000 CAV Policlinico "A. Gemelli" Rome Largo Agostino Gemelli, 8 00168 Tel.06-3054343
Hospital "Careggi" Medical Toxicology Unit Florence Largo Brambilla, 3 50134 Tel.055-7947819
CAV National Center for Toxicological Information Pavia Via Salvatore Maugeri, 10 27100 Tel.0382-24444
hosp. Niguarda Ca' Granda Milan Piazza Ospedale Maggiore,3 20162 Tel.02-66101029 Papa Giovanni XXII Hospital Bergamo Piazza OMS, 1 24127 Tel.800883300 Integrated University Hospital (AOUI) of Verona Borgo Trento, Verona Tel. 800011858

SECTION 2: hazard identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) N. 1272/2008) Acute toxicity, Category 4 H302: Harmful if swallowed.

Skin corrosion, Category 1	H314: Causes severe skin burns and eye damage.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Skin sensitization, Category 1	H317: May cause an allergic skin reaction.
Long-term (chronic) hazard to the aquatic environment, Category 2	H411: Toxic to aquatic life with long lasting effects.

2.2 Elements of the label

Labeling (REGULATION (EC) N. 1272/2008)

Hazard pictograms:

Warning : Danger

Warning notices :

H302 Harmful if swallowed.
H314 It causes serious skin burns and serious eye injuries.
H317 May cause an allergic skin reaction. Toxic to aquatic
H411 life with long lasting effects duration.

Cautionary advice :

Prevention:

P273 Do not disperse in the environment.
P280 Wear gloves/protective clothing/eye protection eyes/ face protection/ hearing protection.

Reaction:

P303 + P361 + P353 IN CASE OF CONTACT WITH THE SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin.
P304 + P340 + P310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER/doctor.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove any contact lenses if it is easy to do so. Continue rinsing. Immediately call a POISON CENTER/doctor.

P391 Collect spillage.

Hazardous components to be indicated on the label:

2-Propenenitrile, polymer with 1,3-butadiene, 1-cyano-1-methyl-4-oxo-4-[[2-(1-piperazinyl)ethyl]amino]butyl-terminated

3,6-dioxaoctamethylenediamine

Phenol, 4,4'-(1-methylethylidene)bis-, polymer with N,N'-bis(2-aminoethyl)-1,2-ethanediamine and (chloromethyl)oxirane

Fatty acids, C18-unsatd., dimers, polymers with tall-oil fatty acids and triethylenetetramine

N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine

Polymer of MXDA

m-phenylenebis(methylamine)

3-aminomethyl-3,5,5-trimethylcyclohexylamine

2.3 Other dangers

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at concentrations of 0.1% or higher.

Ecological information: The substance/mixture does not contain any components considered to have endocrine disrupting properties within the meaning of Article 57(f) of REACH or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain any components considered to have endocrine disrupting properties within the meaning of Article 57(f) of REACH or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Aliphatic amine

Components

Chemical Name	CAS No EC no INDEX NO Number of registration	Classification	concentration and (%w/w)
2-Propenenitrile, polymer with 1,3-butadiene, 1-cyano-1-methyl-4-oxo-4-[[2-(1-piperazinyl)ethyl]amino]butyl-	68683-29-4	Skin Irrit. 2; H315 Skin Sens. 1; H317	> = 30 - < 50

terminated			
3,6-dioxaoctamethylenediamine	929-59-9 213-203-6	Acute Tox. 4; H302 Skin Corr. 1B; H314 Skin Sens. 1; H317	> = 20 - < 25
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with N,N'-bis(2-aminoethyl)-1,2-ethanediamine and (chloromethyl)oxirane	38294-69-8 701-406-7 500-104-0 01-2120766646-41, 01-2120766646-41-0001	Acute Tox. 4; H302 Skin Corr. 1; H314 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	> = 10 - < 12.5
Fatty acids, C18-unsatd., dimers, polymers with tall-oil fatty acids and triethylenetetramine	68082-29-1 500-191-5 01-2119972320-44	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317	> = 10 - < 12.5
N'-(3-aminopropyl)-N,Ndimethylpropane-1,3-diamine	10563-29-8 234-148-4 01-2119970376-29	Acute Tox. 4; H302 Skin Corr. 1A; H314 Eye Dam. 1; H318 Skin Sens. 1B; H317	> = 5 - < 7
Polymer of MXDA	Not assigned	Acute Tox. 4; H302 Acute Tox. 4; H332 Skin Sens. 1; H317 Aquatic Chronic 3; H412	> = 3 - < 5
3-aminomethyl-3,5,5-trimethylcyclohexylamine	2855-13-2 220-666-8 612-067-00-9 01-2119514687-32	Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Corr. 1B; H314 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Chronic 3; H412 --- limits of concentration specific Skin Sens. 1A; H317 > = 0.001% --- Estimation of toxicity acute Acute toxicity for orally: 1.030 mg/kg	> = 0.25 - < 0.5
m-phenylenebis(methylamine)	1477-55-0 216-032-5 01-2119480150-50	Acute Tox. 4; H302 Acute Tox. 4; H332 Skin Corr. 1B; H314 Skin Sens. 1B; H317 Aquatic Chronic 3; H412 EUH071	> = 0.25 - < 0.5

For explanations of abbreviations see paragraph 16.

SECTION 4: first aid measures

4.1 Description of first aid measures General information : Show this safety data sheet to the attending physician.
Keep warm in a quiet room.
Take off all contaminated clothing immediately.

If inhaled : Take to fresh air.
Put the person concerned in a resting position and keep him warm.
If unconscious, place on side in stable position and consult a doctor.
If symptoms persist, consult a doctor. In case of irregular breathing or respiratory arrest, give artificial respiration.

In case of skin contact : Wash immediately with soap and plenty of water. Do not use solvents or thinners.
If it gets on clothing, remove clothing. Burns must be treated by a doctor.

In case of contact with eyes : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
If eye irritation persists, consult a physician. If this is easy, remove contact lenses, if they are worn.

If ingested : DO NOT induce vomiting.
If victim vomits while lying on back, turn to side. Call a doctor immediately.
Give small quantities of water to drink.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : Burn
superficial burning sensation.
Redness
Severe irritation

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : First Aid procedure should be agreed
consulting the competent occupational physician.

SECTION 5: Firefighting measures

5.1 Extinguishing media Suitable extinguishing media : Carbon dioxide (CO_2)
Foam
Dry powder
Watery fog

Unsuitable extinguishing media : Not known.

5.2 Special hazards arising from the substance or mixture

Specific dangers vs the fire : Pressure in hermetically sealed containers can increase under the influence of heat.
Cool closed containers near the flames with nebulised water.
Hazardous decomposition products in case of fire.

5.3 Advice for firefighters

Protection devices special for firefighters : In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

Further information : In case of fire and/or explosion do not breathe fumes. Use extinguishing systems compatible with the local situation and the surrounding environment.
Immediately evacuate personnel to safe areas. Prevent water from fire extinguishers from contaminating surface water or groundwater.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedure

Individual precautions : Refer to protective measures listed in sections 7 and 8.
Evacuate personnel to safe areas.
Use personal protective equipment.
Provide adequate ventilation.
Inform the responsible authorities in the event of a gas leak, or if it enters pipes, soil or sewers.

6.2 Environmental precautions

Environmental precautions : Do not allow uncontrolled dumping of the product in the environment.
Prevent the material from entering drains or waterways.

Local authorities must be notified if leaks cannot be contained.

6.3 Methods and materials for containment and cleaning up

Methods of reclamation : Dry with inert material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Contain and collect spillage with non-combustible absorbent material (such as sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local or national regulations (see section 13).

Pick up and transfer to an appropriate labeled container

6.4 Reference to other sections

See Section 8 for personal protective equipment.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Instructions for use: safe	Ensure sufficient air exchange and/or exhaust in workplaces. Do not breathe vapors or spray. Avoid inhalation, ingestion and contact with skin and eyes. Wear protective clothing. Persons with a history of skin hypersensitivity or asthma, chronic allergies or recurrent respiratory disease should not be employed in any process in which this mixture is used.
Advice on protection against fire and : explosions	Keep away from open flames, hot surfaces and sources of ignition.
Hygiene measures :	Provide adequate ventilation. Wash hands and face before breaks and immediately after handling the product.

7.2 Conditions for safe storage, including any incompatibilities

Warehouse and container requirements: containers	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers. To preserve the quality of the product, do not store near a heat source and do not expose to direct light.
Additional information for the conditions of storage	: Protect from moisture.
Directions for the storage together with other products :	Keep away from isocyanates. Do not store near acids. Keep away from oxidizing agents.
Learn more about storage stability :	Stable under normal environmental conditions of temperature and pressure.

7.3 Particular End Uses

Particular uses	: Consult the technical instructions for use of this substance/mixture.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Does not contain substances with occupational exposure limit values.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Name of the substance	Final use	Street of exposure	Potentials consequences on Health	Value
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with N,N'-bis(2-aminoethyl)-1,2-ethanediamine and (chloromethyl)oxirane	Workers	Oral	Systemic effects a long term	0.529mg/m3
	Workers	Dermal	Systemic effects a long term	0.6mg/kg
Silica, amorphous, fumed, cryst.-free	Workers	Inhalation	Long-term local effects	4mg/m3

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental compartment	Value
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with N,N'-bis(2-aminoethyl)-1,2-ethanediamine and (chloromethyl)oxirane	Fresh water	0 mg/l
	Sea water	0 mg/l
	Sewage treatment plant	1 mg/l
	Fresh water sediment	0.002 mg/l
	Marine sediment	0 mg/l
	Soil	0 mg/l
3-aminomethyl-3,5,5-trimethylcyclohexylamine	Fresh water	0.06 mg/l
	Sea water	0.006 mg/l
	Intermittent releases	0.23 mg/l
	Fresh water sediment	5.784 mg/kg
	Marine sediment	0.578mg/kg
	Sewage treatment plant	3.18 mg/l
	Soil	1.121mg/kg

8.2 Exposure controls

Appropriate engineering controls

Effective exhaust ventilation system effective ventilation in all process areas

Individual protection

Eye protection : Safety glasses with side protection according to to the EN166 standard
Do not wear contact lenses.
Make sure that eyewash stations and emergency showers are close to the workstation.

Hand protection
Material : Protective gloves according to EN 374.

Remarks : Nitrile rubber

Skin and skin protection : Protection suit

body		Preventive skin protection suggested
Respiratory protection	:	Use a respirator during handling involving possible exposure to product vapor. The filter class of the respirator must be suitable for the maximum anticipated concentration of the contaminant (gas/vapour/particulate) which could arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used. Suggested filter type: Filter - ABEK The equipment must comply with EN 14387
Protection arrangements	:	Avoid contact with skin. Wear suitable protective clothing.

SECTION 9: physical and chemical properties

9.1 Information on basic physical and chemical properties

physical state	:	liquid
Color	:	black
Odor	:	ammoniacal
Olfactory threshold	:	not determined
Melting point/freezing point	:	not applicable

Boiling point/range : > 150 °C

Upper explosion limit / Upper limit of flammability : Not applicable

Lower explosion limit / Lower limit of flammability : Not applicable

Flash point	:	100°C
Ignition temperature	:	Not applicable

Temperature of self-ignition : Not applicable

Temperature of decomposition : No data available

pH	:	11 Concentration: 1%

Viscosity
Viscosity, dynamics : 300.000 - 450.000 mPa.s (25 °C)

Viscosity, kinematics : not determined

Solubility/solubilities.
Water solubility : not determined

Solubility in other solvents : not determined

Partition coefficient: n- : No data available octanol/water

Vapor pressure : not determined

Density : 0.98 g/cm 3 (25 °C)

Apparent density : not determined

Relative vapor density : not determined

Particle characteristics
particle size :Not applicable

Particle size : Not applicable

9.2 Other Information

Explosives : Not applicable

Oxidizing properties : Not applicable

Self-ignition : Not applicable

Evaporation rate : not determined

Surface tension : not determined

Sublimation point : Not applicable

SECTION 10: stability and reactivity

10.1 Reactivity

Stable under recommended storage conditions.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

dangerous reactions : Reacts with the following substances:
Acids
Strong oxidizing agents

10.4 Conditions to avoid

Conditions to avoid : No decomposition if used as intended instructions.

10.5 Incompatible materials

Materials to avoid : Strong acids
Strong oxidizing agents

10.6 Hazardous decomposition products

This product can release the following:
Nitrogen oxides (NOx)
Carbon monoxide
Carbon dioxide (CO2)

SECTION 11: toxicological information

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

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate: 1,183 mg/kg
Method: Method of calculation

Remarks: No data available

Acute toxicity for inhalation : Acute toxicity estimate: > 20 mg/l
Exposure time: 4 h Test atmosphere: steam Method: Method of calculation

Remarks: No data available

Acute dermal toxicity : Remarks: No data available

Acute toxicity (by other routes of administration) : Remarks: No data available

Components:

Phenol, 4,4'-(1-methylethylidene)bis-, polymer with N,N'-bis(2-aminoethyl)-1,2-ethanediamine and (chloromethyl)oxirane:

Acute oral toxicity : LD50 (Rat, female): > 300 mg/kg Method: OECD Test Guideline 420 GLP: yes

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Acute oral toxicity : toxicity estimate: 1,030 mg/kg
Method: Estimation of acute toxicity according to Regulation (EC) No. 1272/2008

Skin corrosion/irritation

Product:

Remarks : No data available

Components:

Phenol, 4,4'-(1-methylethylidene)bis-, polymer with N,N'-bis(2-aminoethyl)-1,2-ethanediamine and (chloromethyl)oxirane:

Species	:	reconstructed human epidermis
Assessment	:	(RhE) Causes burns.
Method	:	OECD Test Guideline 439 Corrosive to
Result	:	skin
BPL	:	Yes
Substance to be tested	:	Read through

Serious eye damage/irritation

Product:

Remarks : No data available

Components:

Phenol, 4,4'-(1-methylethylidene)bis-, polymer with N,N'-bis(2-aminoethyl)-1,2-ethanediamine and (chloromethyl)oxirane:

Species	:	On rabbit
Assessment	:	Risk of serious eye damage. OECD
Method	:	Test Guideline 405 Corrosive to eyes
Result	:	
BPL	:	Yes

Respiratory or skin sensitisation

Product:

Remarks : No data available

Components:

Phenol, 4,4'-(1-methylethylidene)bis-, polymer with N,N'-bis(2-aminoethyl)-1,2-ethanediamine and (chloromethyl)oxirane:

Test type	:	Local lymph node assay (LLNA)
Species	:	Mouse
Assessment	:	The product is a skin sensitizer, subcategory 1A. OECD Test
Method	:	Guideline 429
Result	:	Cause sensitization. Yes
BPL	:	

Germ cell mutagenicity

Components:

Phenol, 4,4'-(1-methylethylidene)bis-, polymer with N,N'-bis(2-aminoethyl)-1,2-ethanediamine and (chloromethyl)oxirane:

In vitro genotoxicity : Test type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with or without metabolic activation
Method: OECD Test Guideline 471
Result: negative
BPL: yes

Carcinogenicity

Product:

Remarks : No data available

Reproductive toxicity

Product:

Effects on fertility : Remarks: No data available

Effects on fetal development : Remarks: No data available

Components:

Phenol, 4,4'-(1-methylethylidene)bis-, polymer with N,N'-bis(2-aminoethyl)-1,2-ethanediamine and (chloromethyl)oxirane:

Effects on fetal development : Test Type: Reproductive and developmental toxicity study
Species: Rat, male and female
Strain: Wistar
Method of application: Oral
General Toxicity Maternal: NOAEL: 60 mg/kg body weight
Teratogenicity: NOAEL F1: 60 mg/kg body weight
Developmental Toxicity: NOAEL F1: 60 mg/kg body weight
Embryo-fetal Toxicity: NOAEL F1: 60 mg/kg body weight
Method: OECD Test Guideline 422
BPL: yes

Specific target organ toxicity (STOT) - single exposure

Product:

Remarks : No data available

Specific target organ toxicity (STOT) - repeated exposure

Product:

Remarks : No data available

Repeated dose toxicity

Product:

Remarks : No data available

Components:

Phenol, 4,4'-(1-methylethylidene)bis-, polymer with N,N'-bis(2-aminoethyl)-1,2-ethanediamine and (chloromethyl)oxirane:

Species	:	Rat, male and female 60
NOAEL extension	:	mg/kg
Method of application	:	Oral
Method	:	OECD Test Guideline 422 yes
BPL	:	

Aspiration toxicity

Components:

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

There is no classification for aspiration toxicity

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : The substance/mixture contains no considered components having endocrine-disrupting properties within the meaning of Article 57(f) of REACH or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Further information

Product:

Remarks : No data available

SECTION 12: ecological information

12.1 Toxicity

Product:

Toxicity to fish : Remarks: No data available

Toxicity to daphnia and other aquatic invertebrates : Remarks: No data available

Components:

Phenol, 4,4'-(1-methylethylidene)bis-, polymer with N,N'-bis(2-aminoethyl)-1,2-ethanediamine and (chloromethyl)oxirane:

Toxicity to fish : LL50 (Oncorhynchus mykiss (rainbow trout)): > 0.16 mg/l Exposure time: 96 h
Type of test: Semi-static test
Method: OECD Test Guideline 203 GLP: yes

Toxicity to daphnia and other aquatic invertebrates	:	EL50 (Daphnia magna (Water flea)): 1.7 mg/l End point: Immobilisation Exposure time: 48 h Type of test: Static test Method: OECD Test Guideline 202 GLP: yes
Toxicity to algae/aquatic plants	:	ErL50 (Pseudokirchneriella subcapitata (green algae)): 0.31 mg/l Exposure time: 72 h Type of test: Semi-static test Method: OECD Test Guideline 201 GLP: yes
Toxicity to microorganisms	:	(activated sludge): > 100 mg/l Exposure time: 3 h Test Type: Respiration inhibitor Method: OECD Test Guideline 209 GLP: yes

3-aminomethyl-3,5,5-trimethylcyclohexylamine: Toxicity to fish

	:	LC50 (Leuciscus idus (Golden Leuciscus)): 110 mg/l Exposure time: 96 h Type of test: Semi-static test Method: Directive 67/548/EEC, Annex V, C.1. BPL: yes
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 23 mg/l Exposure time: 48 h Type of test: Static test Method: OECD Test Guideline 202 GLP: yes
Toxicity to algae/aquatic plants	:	EC50r (Scenedesmus capricornutum (Freshwater algae)): > 50 mg/l Exposure time: 72 h Type of test: Static test Method: Directive 67/548/EEC, Annex V, C.3. BPL: yes
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 3mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Test type: semi-static test BPL: yes

12.2 Persistence and degradability

Product:

Biodegradability	:	Remarks: No data available
Physico-chemical elimination	:	Remarks: No data available

Components:

Phenol, 4,4'-(1-methylethylidene)bis-, polymer with N,N'-bis(2-aminoethyl)-1,2-ethanediamine and (chloromethyl)oxirane:

Biodegradability : Test type: aerobic Inoculum: activated sludge
Result: Not readily biodegradable.
Biodegradation: 0%
Exposure time: 28 d
Method: OECD Test Guideline 301 B GLP: yes

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Biodegradability : Test type: aerobic
Result: Not readily biodegradable. Method: Directive 67/548/EEC, Annex V, C.4.A. BPL: yes

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: No data available

Components:

Phenol, 4,4'-(1-methylethylidene)bis-, polymer with N,N'-bis(2-aminoethyl)-1,2-ethanediamine and (chloromethyl)oxirane:

Partition coefficient: n-octanol/water : log Pow: 0.292 (20 - 25°C)
pH: 12
Method: OECD Test Guideline 117 GLP: yes

3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Partition coefficient: n-octanol/water : log Pow: 0.99
Method: OECD Test Guideline 107 GLP: yes

12.4 Mobility in soil

Components:

Phenol, 4,4'-(1-methylethylidene)bis-, polymer with N,N'-bis(2-aminoethyl)-1,2-ethanediamine and (chloromethyl)oxirane:

Diffusion in the various sectors: environmental : Koc: 566ml/g
Method: evaluated

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at concentrations of 0.1% or higher.

12.6 Endocrine-disrupting properties

Product:

Assessment : The substance/mixture contains no considered components having endocrine-disrupting properties within the meaning of Article 57(f) of REACH or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : In accordance with local and national regulations. Dangerous container when empty. Do not dispose of as household waste. Do not mix waste from different sources during collection.

Contaminated containers : Empty containers should be taken to an approved site for recycling or disposal.

SECTION 14: transport information

14.1 UN number or ID number

ADR/RID/ADN : UN 2735

IMDG extension : UN 2735

IATA : UN 2735

14.2 UN proper shipping name

ADR/RID/ADN : CORROSIVE LIQUID AMINES, NOS (dioxaoctamethylenediamine, Reaction Product of Badge with Theta)

IMDG extension : AMINES, LIQUID, CORROSIVE, NOS (TRIETHYLENE GLYCOL DIAMINE, Reaction Product of Badge with Theta)

IATA : Amines, liquid, corrosive, nos (TRIETHYLENE GLYCOL DIAMINE, Reaction Product of Badge with Theta)

14.3 Transport hazard classes

ADR/RID/ADN	:	8
IMDG extension	:	8
IATA	:	8

14.4 Packing group

ADR/RID/ADN

Packing group	:	III
Classification code	:	C7
Hazard identification number	:	80
Labels	:	8
Tunnel restriction code	:	AND

IMDG extension

Packing group	:	III
Labels	:	8
EmS Code	:	FA, SB
Remarks	:	IMDG Code segregation group 18 - Alkalis

IATA (Cargo)

Packing Instructions (Cargo Aircraft)	:	856
Packing group	:	III
Labels	:	Corrosive

IATA (Passenger)

Packing Instructions (Passenger Aircraft)	:	852
Packing instruction (LQ)	:	Y841
Packing group	:	III
Labels	:	Corrosive

14.5 Environmental hazards

ADR/RID/ADN

Dangerous for the environment	:	Yes

IMDG extension

Marine pollutant	:	Yes

IATA (Cargo)

Dangerous for the environment	:	Yes

14.6 Special precautions for users

Remarks	:	The transport of dangerous goods, including loading and unloading, must be carried out by persons who have received the necessary training required by the modal regulations.

The transport classification(s) provided herein are for informational purposes only and based solely on the properties of the unpackaged material as described in this MSDS. Shipping classifications may vary based on mode of transportation, package sizes, and changes in regional or country regulations.

14.7 Shipping in bulk in accordance with IMO acts

Not applicable to the product in its supplied form.

SECTION 15: Regulatory information

15.1 Safety, health and environmental laws and regulations specific to the substance or mixture

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : The restriction conditions for the following items have to be considered:
Number in list: 3

REACH - Candidate List of Substances of Very High Concern for Authorization (Article 59). : Not applicable

Regulation (EC) no. 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast) : Not applicable

Regulation (EC) no. 649/2012 of the European Parliament and of the Council on the export and import of dangerous chemicals : Not applicable

REACH - List of substances subject to authorization (Annex XIV) : Not applicable

REGULATION (EU) 2019/1148 on the placing on the market and use of explosives precursors

: Not applicable

International Chemical Weapons Convention (CWC), : Not applicable list of chemical precursors and toxic products

Regulation (EC) no. 111/2005 of the Council containing rules for the control of trade in drug precursors between the Community and third countries : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.	E2	DANGERS FOR THE ENVIRONMENT

Other legislations : Referring to the product composition, we intentionally do not add any of the substances listed in the European Directive 2011/65/EU (RoHS 2, RoHS3 and China RoHS).

Consequently, the product is in line with these directives. We do not intentionally add Conflict minerals to the product

15.2 Chemical safety assessment

Not applicable

SECTION 16: other information

Full text of the H-Statements

H302	:	Harmful if swallowed.
H312	:	Harmful in contact with skin.
H314	:	It causes serious skin burns and serious eye
H315	:	injuries. Causes skin irritation.
H317	:	May cause an allergic skin reaction. Causes
H318	:	serious eye damage.
H319	:	Causes serious eye irritation.
H332	:	Harmful if inhaled.
H400	:	Very toxic to aquatic organisms.
H410	:	Very toxic to aquatic life with long lasting effects.
H412	:	Harmful to aquatic life with long lasting effects. Corrosive to
EUH071	:	the respiratory tract.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Short-term (acute) aquatic hazard Long-term (chronic)
Aquatic Chronic	:	aquatic hazard Serious eye damage
Eye Dam.	:	
Eye Irrit.	:	Eye irritation
Skin Corr.	:	Skin corrosion
Skin Irrit.	:	Skin irritation
Skin Sens.	:	Skin sensitization

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the international carriage of dangerous goods by road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for Testing of Materials; bw - Body weight; CLP - Classification, Labeling and Packaging Regulation; Regulation (EC) No. 1272/2008; CMR - Carcinogenic, mutagenic or toxic to reproduction; DIN - Standard of the German Institute for Standardization; DSL - Domestic List of Substances (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Load rate associated with x% response; EmS - Emergency Program; ENCS - Existing and New Chemicals (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk; IC50 - Half the concentration maximal inhibitory; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemicals China; IMDG - International Maritime Transport of Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organization for Standardization; KECI - Korea Inventory of Existing Chemicals; LC50 - 50% lethal concentration for a test population; LD50 - 50% lethal dose for a test population (median lethal dose); MARPOL - International Convention for the Prevention of Pollution from Ships; nos - not otherwise specified; NO(A)EC - No (Adverse) Effect Concentration - not otherwise specified; NO(A)EC - No (Adverse) Effect Concentration - not otherwise specified; NO(A)EC - No (Adverse) Effect Concentration - not otherwise specified; NO(A)EC - No (Adverse) Effect Concentration - not otherwise specified; NO(A)EC - No (Adverse) Effect Concentration - not otherwise specified; NO(A)EC - No (Adverse) Effect Concentration - not otherwise specified; NO(A)EC - No (Adverse) Effect Concentration - not otherwise specified; NO(A)EC - No (Adverse) Effect Concentration - not otherwise specified; NO(A)EC - No (Adverse) Effect Concentration - not otherwise specified; NO(A)EC - No (Adverse) Effect Concentration - not otherwise specified; NO(A)EC - No (Adverse) Effect Concentration - not otherwise specified; NO(A)EC - No (Adverse) Effect Concentration - not otherwise specified; NO(A)EC - No (Adverse) Effect Concentration

observed; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observed Effect Load Rate; NZIoC - New Zealand Chemicals Inventory; OECD - Organization for Economic Co-operation and Development; OPPTS - Bureau of Chemical Safety and Pollution Prevention; PBT - Persistent, bioaccumulative and toxic substance; PICCS - Chemical Substances Inventory of the Philippines; (Q)SAR - (Quantitative) Structure Activity Relationships; REACH - Regulation (EC) No. 1907/2006 of the European Parliament and of the Council concerning the registration, evaluation, the authorization and restriction of chemicals; RID - Regulations concerning the international rail transport of dangerous goods; SADT - Self-accelerating decomposition temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemical Substances Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very persistent and very bioaccumulative united; vPvB - Very persistent and very bioaccumulative United; vPvB - Very persistent and very bioaccumulative

Further information

Directions on training : Provision of information, instructions to operators and training.

Classification of the mixture:		**Classification procedure:**
Acute Tox. 4	H302	Calculation method
Skin Corr. 1	H314	Calculation method
Eye Dam. 1	H318	Calculation method
Skin Sens. 1	H317	Calculation method
Aquatic Chronic 2	H411	Calculation method

The information contained in this Safety Data Sheet is correct according to our best knowledge of the product at the time of publication. This information is provided for the sole purpose of allowing the use, storage, transport and disposal of the product in the most correct and safest way. This information should not be considered a guarantee or specification of product quality.

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