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EPOXY MIX 140 component A

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

1.1 Product Identifier

Commercial name : EPOXY MIX 140 component A

UFI : F030-N0K4-X00C-TJW3

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

Utilization of substance/of the mixture : Adhesive

Usage Restrictions recommended : Reserved for industrial and professional users.

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 branch, Verona Tel. 800011858

SECTION 2: hazard identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) N. 1272/2008) Skin irritation, Category 2 H315: Causes skin irritation.

Eye irritation, Category 2	H319: Causes serious eye irritation.
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 : Attention

Warning notices :
H315 Causes skin irritation.
H317 May cause an allergic skin reaction. Causes
H319 serious eye irritation.
H411 Toxic to aquatic life with long lasting effects duration.

Cautionary advice :

Prevention:

P261 Avoid breathing dust. Wash skin
P264 thoroughly after use. Do not disperse in
P273 the environment.
P280 Wear gloves/ eye protection/ eye protection face.

Response:

P333 + P313 If skin irritation or rash occurs: consult a doctor.
P391 Collect spillage.

Hazardous components to be indicated on the label:

Reaction product: bisphenol-F-epichlorohydrin; epoxy resins (average molecular weight <= 700)

2,2-bis-[4-(2,3-epoxypropoxy)phenyl]-propane

Reaction product of Epichlorohydrin/Bisphenol-A

1,6-bis(2,3-epoxypropoxy)hexane

Additional labeling

EUH205 Contains epoxy components. May cause an allergic reaction.

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 : Modified epoxy resin

Components

Chemical Name	CAS No EC no INDEX NO Number of registration	Classification	concentration and (%w/w)
Reaction product: bisphenol-Fepiclohydrin; epoxy resins (average molecular weight <= 700)	Not assigned 01-2119454392-40	Skin Irrit. 2; H315 Skin Sens. 1; H317 Aquatic Chronic 2; H411	> = 30 - < 50
2,2-bis-[4-(2,3-epoxypropoxy)phenyl]-propane	1675-54-3 216-823-5 603-073-00-2 01-2119456619-26	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317 Aquatic Chronic 2; H411 --- limits of concentration specific Eye Irrit. 2; H319 > = 5% Skin Irrit. 2; H315 > = 5%	> = 20 - < 25
Reaction product of Epichlorohydrin/Bisphenol-A	25068-38-6	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317	> = 12.5 - < 20
1,6-bis(2,3-epoxypropoxy)hexane	933999-84-9 01-2119463471-41	Skin Irrit. 2; H315 Eye Irrit. 2; H319	> = 5 - < 7

		Skin Sens. 1; H317 Aquatic Chronic 3; H412	
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	2530-83-8 219-784-2 01-2119513212-58	Eye Dam. 1; H318 Aquatic Chronic 3; H412	> = 1 - < 2.5

For explanations of abbreviations see paragraph 16.

SECTION 4: first aid measures

4.1 Description of first aid measures General information : Keep warm in a quiet room.
Show this safety data sheet to the attending physician.
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. If skin irritation persists, call 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 : Keep at rest.
Do not induce vomiting without medical advice. Keep the respiratory tract clean.
If symptoms persist, consult a doctor.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : irritant effects
Redness
sensitizing effects

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 : Foam
Sand
Carbon dioxide (CO2)
Water mist

Unsuitable extinguishing media : Nebulised water jet

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.

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.
Dispose of the contaminated water used for extinguishing and the residue of the fire according to the regulations in force.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures 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).

Collect and transfer to a properly 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.
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.

Directions for the storage together with other products : Keep away from oxidizing agents, strong acids or bases and amines.
Keep the product and empty containers away from heat and ignition sources.
Keep away from food and drink.

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.
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
2,2-bis-[4-(2,3-epoxypropoxy)phenyl]-propane	Workers	Contact with skin	Acute systemic effects, Systemic effects a long term	8.33 mg/kg
	Workers	Inhalation	Acute systemic effects, Long-term local effects	12.25 mg/m3
	Consumers	Contact with skin	Acute systemic effects, Systemic effects a long term	3.571 mg/kg
	Consumers	Ingestion	Acute systemic effects, Systemic effects a long term	0.75mg/kg
1,6-bis(2,3-epoxypropoxy)hexane	Workers	Contact with skin	Systemic effects a long term	2.8mg/kg
	Workers	Inhalation	Systemic effects a long term	4.9 mg/m3
[3-(2,3-epoxypropoxy)propyl] trimethoxysilane	Workers	Contact with skin	Acute systemic effects	21 mg/kg
		Inhalation	Acute systemic effects	147 mg/m3
	Workers		Systemic effects a long term	21 mg/kg
	Workers		Systemic effects a long term	147 mg/m3

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

Substance name	Environmental compartment	Value
2,2-bis-[4-(2,3-epoxypropoxy)phenyl]-propane	Fresh water	0.006 mg/l
	Sea water	0.0006 mg/l
	Intermittent releases	0.018 mg/l
	Sewage treatment plant	10 mg/l
	Fresh water sediment	0.996mg/kg
	Marine sediment	0.0996mg/kg
	Soil	0.196mg/kg
1,6-bis(2,3-epoxypropoxy)hexane	Sewage treatment plant	1 mg/l
	Fresh water	0.0115 mg/l
	Fresh water sediment	0.283mg/kg
	Sea water	0.00115 mg/l
	Marine sediment	0.0283mg/kg
	Soil	0.223mg/kg
[3-(2,3-	Sewage treatment plant	10 mg/l

epoxypropoxy)propyl]trimethoxysilan		
	Fresh water	1 mg/l
	Sea water	0.1 mg/l
	Intermittent releases	1 mg/l
	Fresh water sediment	0.79mg/kg
	Soil	0.13mg/kg

8.2 Exposure controls

Appropriate engineering controls

Effective exhaust ventilation system effective ventilation in all process areas

Individual protection

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

Hand protection
Material : Protective gloves according to EN 374.

Skin and body protection : Protection suit

Respiratory protection : Use respiratory protection, unless adequate local exhaust ventilation is provided or exposure assessment demonstrates exposure meets recommended guidelines.

In case of vapor formation, use a respirator with an approved filter.
The equipment must comply with EN 14387 Apply the necessary technical measures not to exceed the occupational exposure limit values.
This can be obtained through a good general air exchange or, if practicable, through a local aspirator.

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 : dough

Color : white

Odor : light

Olfactory threshold : not determined

Melting point/freezing point : Not applicable

Boiling point/range : Not applicable

Upper explosion limit : Not applicable / Upper limit of flammability

Lower explosion limit / : Not applicable Lower limit of flammability

Flash point : 150°C

Ignition temperature : Not applicable

Temperature of self-ignition : Not applicable

Temperature of decomposition : No data available

pH : 4 - 6
Concentration: 1%

Viscosity
Viscosity, dynamics : 350.000 - 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 : 1.18 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:
Bases
Strong oxidizing agents Avoid amines.

10.4 Conditions to avoid

Conditions to avoid : No decomposition if used according to the specific instructions.

10.5 Incompatible materials

Materials to avoid : Incompatible with oxidizing agents.

10.6 Hazardous decomposition products

This product can release the following:
Carbon monoxide, carbon dioxide or unburned hydrocarbons (smoke).

SECTION 11: toxicological information

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

Acute toxicity

Product:

Acute oral toxicity	: Remarks: No data available
Acute toxicity for inhalation	: Remarks: No data available
Acute dermal toxicity	: Remarks: No data available

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

Components:

2,2-bis-[4-(2,3-epoxypropoxy)phenyl]-propane:

Acute oral toxicity : LD50 (Rat, female): > 2,000 mg/kg Method: OECD Test Guideline 420 GLP: yes

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg Method: OECD Test Guideline 402 GLP: yes

1,6-bis(2,3-epoxypropoxy)hexane:

Acute oral toxicity : LD50 (Rat): 2,900 mg/kg Method: OECD Test Guideline 401 GLP: yes

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg Method: OECD Test Guideline 402 GLP: yes

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

Acute toxicity for inhalation : LC50 (Rat, male and female): > 5.3 mg/l
Exposure time: 4 h
Test atmosphere: dust/fog
Method: OECD Test Guideline 403 GLP: yes

Acute dermal toxicity : LD50 (Rabbit, male): 4,250 mg/kg Method: OECD Test Guideline 402

Skin corrosion/irritation

Product:

Remarks : No data available

Components:

2,2-bis-[4-(2,3-epoxypropoxy)phenyl]-propane:

Species : On rabbit
Exposition time : 4 h
Method : OECD Test Guideline 404 Irritating to
Result : skin
BPL : Yes

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

Species : On rabbit
Method : OECD Test Guideline 404 No skin
Result : irritation

Serious eye damage/irritation

Product:

Remarks : No data available

Components:

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

Species	:	On rabbit
Method	:	OECD Test Guideline 405 Risk of
Result	:	serious damage to eyes.

Respiratory or skin sensitisation

Product:

Remarks : No data available

Components:

2,2-bis-[4-(2,3-epoxypropoxy)phenyl]-propane:

Test type	:	Mouse Local Lymph Node assay (LLNA)
Species	:	Mouse
Method	:	OECD Test Guideline 429
Result	:	May cause sensitization by skin contact. Yes
BPL	:	

1,6-bis(2,3-epoxypropoxy)hexane:

Test type	:	Mouse Local Lymph Node assay (LLNA)
Route of exposure	:	Dermal
Species	:	Mouse
Method	:	OECD Test Guideline 429
Result	:	May cause sensitization by skin contact. Yes
BPL	:	

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

Test type	:	Buehler test
Species	:	Guinea pig
Method	:	OECD Test Guideline 406 Does not cause
Result	:	skin sensitization. Yes
BPL	:	

Carcinogenicity

Product:

Remarks : No data available

Reproductive toxicity

Product:

Effects on fertility : Remarks: No data available

Effects on fetal development : Remarks: No data available

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

Aspiration toxicity

Components:

2,2-bis-[4-(2,3-epoxypropoxy)phenyl]-propane:
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:

2,2-bis-[4-(2,3-epoxypropoxy)phenyl]-propane:

Toxicity to daphnia and : to other aquatic invertebrates		EC50 (Daphnia (water flea)): 1.7 mg/l Exposure time: 48 h Type of test: Static test Method: OECD Test Guideline 202 GLP: yes
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 0.3mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Test type: semi-static test Method: OECD Test Guideline 211 GLP: yes

1,6-bis(2,3-epoxypropoxy)hexane:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 30 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	:	EC50 (Daphnia magna (Water flea)): 39 mg/l Exposure time: 48 h Type of test: Static test Method: OECD Test Guideline 202 GLP: yes

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

Toxicity to fish	:	LC50 (Cyprinus carpio (Carp)): 55 mg/l Exposure time: 96 h Type of test: Semi-static test Method: Directive 67/548/EEC, Annex V, C.1.
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: > 100 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Test type: semi-static test Method: OECD Test Guideline 211 GLP: yes

12.2 Persistence and degradability

Product: Biodegradability : Remarks: No data available

Physico-chemical elimination : Remarks: No data available

Components:

2,2-bis-[4-(2,3-epoxypropoxy)phenyl]-propane:

Biodegradability : Result: Not readily biodegradable.

Method: OECD Test Guideline 301F GLP: yes

1,6-bis(2,3-epoxypropoxy)hexane:

Biodegradability : Test type: aerobic
Result: Inherently biodegradable. Method: OECD Test Guideline 301D GLP: yes

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

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:

2,2-bis-[4-(2,3-epoxypropoxy)phenyl]-propane:

Partition coefficient: n-octanol/water : log Pow: 3.242 (25°C)
pH: 7.1
Method: OECD Test Guideline 117 GLP: yes

1,6-bis(2,3-epoxypropoxy)hexane:

Partition coefficient: n-octanol/water : log Pow: 0.822 (20°C)
pH: 6 - 8
Method: OECD Test Guideline 107 GLP: yes

12.4 Mobility in soil

Components:

1,6-bis(2,3-epoxypropoxy)hexane:

Diffusion in the various sectors: environmental : log Koc: 2.98
Method: OECD Test Guideline 121

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 3077

IMDG extension : UN 3077

IATA : UN 3077

14.2 UN proper shipping name

ADR/RID/ADN : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, NOS, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, NOS
(Epoxy resin)

IMDG extension : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, NOS

(epoxy resin)

IATA : Environmentally hazardous substance, solid, nos
(Epoxy resin)

14.3 Transport hazard classes

ADR/RID/ADN : 9

IMDG extension : 9

IATA : 9

14.4 Packing group

ADR/RID/ADN

Packing group	:	III
Classification code	:	M7
Hazard identification number	:	90
Labels	:	9
Tunnel restriction code	:	-
Remarks	:	ADR: These substances, when carried in single or combined packagings containing a net quantity per single or inner packing less than or equal to 5 liters for liquids or having a net mass per single or inner packing less than or equal to 5 kg for solids , are not subject to any other provision of ADR provided that the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

IMDG extension

Packing group	:	III
Labels	:	9
EmS Code	:	FA, SF
Remarks	:	IMDG Code segregation group - none IMDG: Marine pollutants packed in individual or combination packagings containing an individual or inner packaging net quantity of 5 liters or less for liquids or with an individual or inner packaging net mass of 5 kg or less for solids are not subject to all other provisions of this Code relating to marine pollutants provided that the packaging meets the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. In the case of marine pollutants that also meet the criteria for inclusion in another hazard class, all provisions of this code relating to additional hazards continue to apply.

IATA (Cargo)

Packing Instructions (Cargo Aircraft)	:	956
Packing group	:	III
Labels	:	miscellaneous
Remarks	:	IATA: These substances, when carried in single or combination packagings containing a net quantity per single or inner packaging of less than or equal to 5 liters for liquids or having a net mass of 5 kg or less for solids, are not subject to other provisions of this Regulation provided that the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

IATA (Passenger)

Packing Instructions (Passenger Aircraft)	:	956
Packing instruction (LQ)	:	Y956
Packing group	:	III
Labels	:	miscellaneous

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)	: Not applicable
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

H315	:	Causes skin irritation.
H317	:	May cause an allergic skin reaction. Causes
H318	:	serious eye damage.
H319	:	Causes serious eye irritation.
H411	:	Toxic to aquatic life with long lasting effects. Harmful to
H412	:	aquatic life with long lasting effects.

Full text of other abbreviations

Aquatic Chronic	:	Long-term (chronic) aquatic hazard Serious eye damage
Eye Dam.	:	
Eye Irrit.	:	Eye irritation
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 of the maximum inhibitory concentration; ICAO - Organization international civil aviation; 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; our - not otherwise specified; NO(A)EC - No Observed (Adverse) Effect Concentration; 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 TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very persistent and very bioaccumulative TSCA - Toxic Substances Control Act (United States); UN - United Nations; 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:**
Skin Irrit. 2	H315	Calculation method
Eye Irrit. 2	H319	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.

IT / IT

EPOXY MIX 140 component B

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

1.1 Product Identifier

Commercial name :EPOXY MIX 140 component B

UFI :N330-508J-700U-GWG5

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

Utilization of substance/of the mixture : Adhesive

Usage Restrictions recommended : Reserved for industrial and professional users.

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 branch, 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.
Specific target organ toxicity - repeated exposure, Category 2	H373: May cause damage to organs through prolonged or repeated exposure.
Long-term (chronic) hazard to the aquatic environment, Category 3	H412: Harmful 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. May cause an allergic skin reaction.
H317
H373 May cause damage to organs if exposed prolonged or repeated.
H412 Harmful to aquatic life with long lasting effects.

Cautionary advice :

Prevention:

P260 Do not breathe mist or vapours.
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.

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

2-piperazin-1-ylethylamine

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 : Modified epoxy resin

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]butylterminated	68683-29-4	Skin Irrit. 2; H315 Skin Sens. 1; H317	> = 30 - < 50
3,6-dioxaoctamethylenediamine	929-59-9 213-203-6	Acute Tox. 4; H302 Skin Corr. 1B; H314 Skin Sens. 1; H317	> = 20 - < 25
Trimethylolpropane poly(oxypropylene)triamine	39423-51-3 500-105-6 01-2119556886-20	Acute Tox. 4; H302 Acute Tox. 4; H312 Eye Dam. 1; H318 Aquatic Chronic 2; H411	> = 12.5 - < 20

Poly[oxy(methyl-1,2-ethanediyl)], . alpha.-(2-aminomethylethyl)- . omega.-(2-aminomethylethoxy)-	9046-10-0 01-2119557899-12	Skin Corr. 1C; H314 Eye Dam. 1; H318 Aquatic Chronic 3; H412	> = 7 - < 10
2,4,6-tris(dimethylaminomethyl)phenol	90-72-2 202-013-9 603-069-00-0 01-2119560597-27	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Irrit. 2; H319	> = 5 - < 7
2-piperazin-1-ylethylamine	140-31-8 205-411-0 612-105-00-4	Acute Tox. 4; H302 Acute Tox. 3; H311 Skin Corr. 1; H314 Eye Dam. 1; H318 Skin Sens. 1; H317 Repr. 2; H361 STOT RE 1; H372 (Respiratory tract) Aquatic Chronic 3; H412	> = 1 - < 2.5

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 (CO2)
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 procedures

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).

Collect and transfer to a properly 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.
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
Trimethylolpropane poly(oxypropylene)triamines	Workers	Contact with skin	Systemic effects a long term	1.6mg/kg
	Workers	Inhalation	Systemic effects a long term	14 mg/m3
	Consumers	Inhalation	Systemic effects a long term	3.48 mg/m3
	Consumers	Contact with skin	Systemic effects a long term	0.8mg/kg
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-(2-aminomethylethyl)-. omega.-(2-aminomethylethoxy)-	Workers	Contact with skin	Systemic effects a long term	2.5mg/kg
	Workers	Contact with skin	Long-term local effects	0.623mg/cm2
	Consumers	Contact with skin	Systemic effects a long term	1.25mg/kg
	Consumers	Contact with skin	Long-term local effects	0.311mg/cm2
	Consumers	Ingestion	Systemic effects a long term	0.04mg/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
Trimethylolpropane poly(oxypropylene)triamine	Fresh water	0.0044 mg/l
	Sea water	0.00044 mg/l

	Intermittent releases	0.044 mg/l
	Fresh water sediment	0.02mg/kg
	Marine sediment	0.002mg/kg
	Soil	0.002mg/kg
	Sewage treatment plant	10 mg/l
Poly[oxy(methyl-1,2-ethanediyl)], . alpha.-(2-aminomethylethyl)- . omega.-(2-aminomethylethoxy)-	Fresh water	0.015 mg/l
	Sea water	0.0143 mg/l
	Fresh water sediment	0.132mg/kg
	Marine sediment	0.125mg/kg
	Soil	0.0176mg/kg
	Intermittent releases	0.15 mg/l
	Sewage treatment plant	7.5 mg/l

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 body protection : Protection suit
Preventive skin protection recommended

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	:	orange
Odor	:	ammoniacal
Olfactory threshold	:	not determined

Melting point/freezing point : Not applicable

Boiling point/range : > 100 °C

Upper explosion limit / Upper limit of flammability : Not applicable

Lower explosion limit / Lower limit of flammability : Not applicable

Flash point	:	150°C
Ignition temperature	:	Not applicable

Temperature of self-ignition : Not applicable

Temperature of decomposition : No data available

pH	:	11 Concentration: 1%

Viscosity

Viscosity, dynamics : 85.000 - 130.000 mPa.s (25 °C)

Viscosity, kinematics : not determined

Solubility/solubilities.

Water solubility : not determined

Solubility in other solvents : not determined

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

Vapor pressure	:	not determined
Density	:	1 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 according to the specific 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: 1,065 mg/kg
Method: Method of calculation

Acute toxicity for inhalation : Remarks: No data available

Acute dermal toxicity : Acute toxicity estimate: > 2,000 mg/kg
Method: Calculation method

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

Components:

Trimethylolpropane poly(oxypropylene)triamine:

Acute oral toxicity : LD50 (Rat, female): 550 mg/kg Method: OECD Test Guideline 425 GLP: yes

Acute dermal toxicity : LD50 (Rat, male and female): > 1,000 mg/kg
Method: OECD Test Guideline 402 GLP: yes

Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-(2-aminomethylethyl)-.omega.-(2-aminomethylethoxy)-:

Acute oral toxicity : LD50 (Rat, male and female): 2,885.3 mg/kg
Method: OECD Test Guideline 401 GLP: yes

Acute dermal toxicity : LD50 (Rabbit, male and female): 2,979.7 mg/kg
Method: OECD Test Guideline 402
BPL: yes

Skin corrosion/irritation

Product:

Remarks : No data available

Components:

Trimethylolpropane poly(oxypropylene)triamine:

Species : On rabbit
Method : OECD Test Guideline 404 Mild skin
Result : irritation
BPL : Yes

Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-(2-aminomethylethyl)-.omega.-(2-aminomethylethoxy)-:

Species	:	On rabbit
Method	:	OECD Test Guideline 404 Corrosive
Result	:	

Serious eye damage/irritation

Product:

Remarks : No data available

Components:

Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-(2-aminomethylethyl)-.omega.-(2-aminomethylethoxy)-:

Method	:	OECD Test Guideline 405 Risk of
Result	:	serious damage to eyes.

Respiratory or skin sensitisation

Product:

Remarks : No data available

Components:

Trimethylolpropane poly(oxypropylene)triamine:

Test type	:	Buehler test
Route of exposure	:	Dermal
Species	:	Guinea pig
Method	:	OECD Test Guideline 406 Does not cause
Result	:	skin sensitization. Yes
BPL	:	

Carcinogenicity

Product:

Remarks : No data available

Reproductive toxicity

Product:

Effects on fertility : Remarks: No data available

Effects on fetal development : Remarks: No data available

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

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:

Trimethylolpropane poly(oxypropylene)triamine:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l Exposure time: 96 h
Type of test: Static test
Method: OECD Test Guideline 203 GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 13 mg/l Exposure time: 48 h
Type of test: Static test
Method: OECD Test Guideline 202 GLP: yes

Toxicity to algae/aquatic plants : EC50r (Pseudokirchneriella subcapitata (green algae)): 4.4 mg/l
Exposure time: 72 hours

Type of test: Static test
Method: OECD Test Guideline 201 GLP: yes

NOEC (Pseudokirchneriella subcapitata (green algae)): 1 mg/l

Exposure time: 72 h Type of
test: Static test
Method: OECD Test Guideline 201 GLP: yes

Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-(2-aminomethylethyl)-.omega.-(2-aminomethylethoxy)-:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 15 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 : EC50 (Daphnia magna (Water flea)): 80 mg/l Exposure time: 48 h
Type of test: Static test
Method: OECD Test Guideline 202 GLP: yes

Toxicity to algae/aquatic plants : NOEC (Pseudokirchneriella subcapitata (green algae)): 0.32 mg/l
Exposure time: 72 h Type of
test: Static test
Method: OECD Test Guideline 201 GLP: yes

12.2 Persistence and degradability

Product: Biodegradability : Remarks: No data available

Physico-chemical elimination : Remarks: No data available

Components:

Trimethylolpropane poly(oxypropylene)triamine:

Biodegradability : Test type: aerobic
Result: Not readily biodegradable. Method:
OECD Test Guideline 301F GLP: yes

Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-(2-aminomethylethyl)-.omega.-(2-aminomethylethoxy)-:

Biodegradability : Test type: aerobic
Result: Not readily biodegradable. Method: OECD
Test Guideline 301 B GLP: yes

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: No data available

Components:

Trimethylolpropane poly(oxypropylene)triamine:

Partition coefficient: n- : octanol/water
log Pow: -1.13 (20°C)
pH: 12.7
BPL: yes

Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-(2-aminomethylethyl)-.omega.-(2-aminomethylethoxy)-:

Partition coefficient: n- : log Pow: 1.34 (25 °C) octanol/water
Method: OECD Test Guideline 117 GLP: yes

12.4 Mobility in soil No data available

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)

IMDG extension : AMINES, LIQUID, CORROSIVE, NOS (TRIETHYLENE GLYCOL DIAMINE)

IATA : Amines, liquid, corrosive, nos (TRIETHYLENE GLYCOL DIAMINE)

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 : 856
(Cargo Aircraft)
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 : no

IMDG extension

Marine pollutant : no

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. Not applicable

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.
H311	:	Toxic in contact with skin.
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.
H361	:	Suspected of damaging fertility or the unborn child if swallowed.
H372	:	Causes damage to organs through prolonged or repeated exposure.
H411	:	Toxic to aquatic life with long lasting effects. Harmful to
H412	:	aquatic life with long lasting effects.

Full text of other abbreviations

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

STOT RE : Specific target organ toxicity - repeated exposure

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; our - not otherwise specified; NO(A)EC - No Observed (Adverse) Effect Concentration; 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 TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very persistent and very bioaccumulative TSCA - Toxic Substances Control Act (United States); UN - United Nations; 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
STOT RE 2	H373	Calculation method
Aquatic Chronic 3	H412	Calculation method

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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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