Safety Data Sheet

According to Annex II to REACH - Regulation (EU) 2020/878 and to Annex II to UK REACH

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

1.1. Product identifier

Code:	**SP10A**
Product name	**EPOXY CER 90 PARTE A**
Chemical name and synonym	**Mixture of epoxy resins and mineral aggregates**

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

Intended use: **Epoxy adhesive**

Identified Uses	Industrial	Professional	Consumer
Professional uses: public sector (administration, education, entertainment, services, crafts)	**-**	**ERC: 8b, 8e. PROC: 10, 11, 19. PC: 1.**	**-**

1.3. Details of the supplier of the safety data sheet

Name	**Industria Chimica General S.r.l.**		
Full address	**Via Repubblica di San Marino 8**		
District and Country	**41122**	**Modena Italy**	**(MO)**
	Tel.	**(+39) 059 450991 / 059 450978**	
	Fax	**(+39) 059 450615**	
e-mail address of the competent person responsible for the Safety Data Sheet	**ricerca@generalchemical.it**		
Supplier:	**Industria Chimica General S.r.l.**		

1.4. Emergency telephone number

For urgent inquiries refer to

Milano, Italy	**(+39) 02 66101029**	**Centro Antiveleni Ospedale Niguarda Ca' Granda**
Pavia, Italy	**(+39) 0382 24444**	**Centro Antiveleni IRCSS Fondazione Maugeri**
Bergamo, Italy	**(+39) 800 883300**	**Centro Antiveleni Ospedali Riuniti**
Firenze, Italy	**(+39) 055 7947819**	**Centro Antiveleni Ospedale Careggi**
Roma, Italy	**(+39) 06 3054343**	**Centro Antiveleni Policlinico Gemelli**
Roma, Italy	**(+39) 06 49978000**	**Centro Antiveleni Policlinico Umberto I**
Napoli, Italy	**(+39) 081 7472870**	**Centro Antiveleni Ospedale Cardarelli**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Serious eye damage, category 1	H318	Causes serious eye damage.
Skin irritation, category 2	H315	Causes skin irritation.
Skin sensitization, category 1A	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

SECTION 2. Hazards identification ... / >>

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
EUH205	Contains epoxy constituents. May produce an allergic reaction.

Precautionary statements:

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P280	Wear protective gloves / eye protection / face protection.
P310	Immediately call a POISON CENTER / doctor / . . .
P273	Avoid release to the environment.
P391	Collect spillage.
P501	Dispose of the product / container in an authorized installation according to national and local regulations.

Contains: Oxirane, 2-methyl-, polymer with 2,4-diisocyanato-1-methylbenzene, 2-methyloxirane polymer with oxirane ether with 1,2,3-propanetriol (3:1) and oxirane, cashew nutshell liquid and propyl alcohol blocked
bis-[4-(2,3-epoxipropoxi)phenyl]propane
BISPHENOL F-EPICHLORHYDRIN (MW ≤700)
oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
bisphenol-F-epichlorohydrin resin, MM=<700
Cashew, nutshell liq.

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration ≥ 0.1%.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification		x = Conc. %	Classification (EC) 1272/2008 (CLP)
bis-[4-(2,3-epoxipropoxi)phenyl]propane			
INDEX	*603-073-00-2*	25 ≤ x < 35	**Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC	*216-823-5*		**Skin Irrit. 2 H315: ≥ 5%, Eye Irrit. 2 H319: ≥ 5%**
CAS	*1675-54-3*		
REACH Reg.	*01-2119456619-26*		
CALCIUM METASILICATE			
INDEX		10 ≤ x < 19	
EC	*237-772-5*		
CAS	*13983-17-0*		

SECTION 3. Composition/information on ingredients ... / >>

bisphenol-F-epichlorohydrin resin, MM=<700
INDEX 10 ≤ x < 19 **Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *701-263-0*
CAS
REACH Reg. *01-2119454392-40*

Oxirane, 2-methyl-, polymer with 2,4-diisocyanato-1-methylbenzene, 2-methyloxirane polymer with oxirane ether with 1,2,3-propanetriol (3:1) and oxirane, cashew nutshell liquid and propyl alcohol blocked
INDEX 5 ≤ x < 10 **Eye Dam. 1 H318, Skin Sens. 1 H317**
EC *809-883-4*
CAS *1227870-90-7*

SILICON DIOXIDE (nanoform)
INDEX 1 ≤ x < 5
EC *231-545-4*
CAS *7631-86-9*
REACH Reg. *01-2119379499-16*

oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
INDEX *603-103-00-4* 1 ≤ x < 5 **Skin Irrit. 2 H315, Skin Sens. 1 H317**
EC *271-846-8*
CAS *68609-97-2*
REACH Reg. *01-2119485289-22*

BISPHENOL F-EPICHLORHYDRIN (MW ≤700)
INDEX 2,5 ≤ x < 5 **Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *500-006-8*
CAS *9003-36-5*
REACH Reg. *01-2119454392-40*

PROPYLENE CARBONATE
INDEX *607-194-00-1* 0,5 ≤ x < 1 **Eye Irrit. 2 H319**
EC *203-572-1*
CAS *108-32-7*
REACH Reg. *01-2119537232-48*

Cashew, nutshell liq.
INDEX 0,5 ≤ x < 1 **Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317**
EC *232-355-4* **STA Oral: 500 mg/kg, STA Dermal: 1100 mg/kg**
CAS *8007-24-7*

The full wording of hazard (H) phrases is given in section 16 of the sheet.

silicon dioxide
Silicon dioxide

Supplementary information for nanoforms

Shape
Shape 1:

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.
INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

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

Specific information on symptoms and effects caused by the product are unknown.

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

In case of accident or discomfort, consult a doctor immediately, showing the label and / or the safety data sheet. No special treatment provided.

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING MEDIA
The means of extinction are the traditional ones: carbon dioxide, foam, dust and atomated water.
UNSUITABLE MEANS OF EXTINCTION
Do not use full jet water.

5.2. Special hazards arising from the substance or mixture

HAZARDS DUE TO EXPOSURE IN THE EVENT OF FIRE
Avoid breathing combustion products. Combustion products may include: phenolic compounds, carbon monoxide, carbon dioxide, halogenated compounds.

5.3. Advice for firefighters

GENERAL INFORMATIONS
Cool the containers with water jets to avoid decomposition of the product and the development of substances potentially hazardous for health. Always wear the complete fire protection equipment. Collect extinguishing water that must not be discharged into drains. Dispose of contaminated water used for extinction and the remains of the fire according to the regulations in force.
EQUIPMENT
Normal fire-fighting garments, such as a fireproof blanket, a polycarbonate helmet with screen frame, full-face mask with ABEKP3 multi-purpose filter, gloves and heat-resistant suit, safety belt.

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Handle the product after consulting all the other sections of this safety data sheet. Do not use people with a history of skin sensitization in any process that requires the use of this product. Avoid dispersion of the product in the environment. Do not eat, drink or smoke during use. Remove contaminated clothing and protective equipment before entering areas where you eat.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Keep the containers closed, in a well-ventilated place, away from direct sunlight. Keep the containers away from any incompatible materials, checking section 10.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory references:

TLV-ACGIH ACGIH 2023

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

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,006	mg/l
Normal value in marine water	0,0006	mg/l
Normal value for fresh water sediment	0,0627	mg/kg
Normal value for marine water sediment	0,00627	mg/kg
Normal value of STP microorganisms	10	mg/l
Normal value for the terrestrial compartment	0,0478	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		0,75 mg/kg bw/d		0,75 mg/kg bw/d				
Inhalation				0,87		12,25 mg/m3		12,25 mg/m3
Skin		3,571 mg/kg bw/d		3,571 mg/kg bw/d		8,33 mg/kg bw/d		8,33 mg/kg bw/d

CALCIUM METASILICATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH		10				INHAL
TLV-ACGIH		3				RESP

bisphenol-F-epichlorohydrin resin, MM=<700

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,003	mg/l
Normal value in marine water	0,0003	mg/l
Normal value for fresh water sediment	0,294	mg/kg
Normal value for marine water sediment	0,0294	mg/kg
Normal value for water, intermittent release	0,0254	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the terrestrial compartment	0,237	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			6,25	6,25 mg/kg bw/d				
Inhalation				8,7 mg/m3				29,39 mg/m3
Skin				62,5 mg/kg bw/d	0,0083 mg/cm2			104,15 mg/kg bw/d

SILICON DIOXIDE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH		10				INHAL
TLV-ACGIH		3				RESP

SECTION 8. Exposure controls/personal protection ... / >>

oxirane, mono[(C12-14-alkyloxy)methyl] derivs.

Predicted no-effect concentration - PNEC								
Normal value in fresh water						0,106	mg/l	
Normal value in marine water						0,011	mg/l	
Normal value for fresh water sediment						307,16	mg/kg	
Normal value for marine water sediment						30,72	mg/kg	
Normal value of STP microorganisms						10	mg/l	
Normal value for the terrestrial compartment						1,234	mg/kg	
Health - Derived no-effect level - DNEL / DMEL								
	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				0,5 mg/kg/d				
Inhalation	2,9 mg/m3	7,6 mg/m3	1,46 mg/m3	0,87 mg/m3	9,8 mg/m3	29 mg/m3	0,98 mg/m3	3,6 mg/m3
Skin	40 mg/kg/d	10 mg/kg/d	1 mg/kg/d	0,5 mg/kg bw/d	68 mg/kg/d	17 mg/kg/d	1,7 mg/kg/d	1 mg/kg bw/d

BISPHENOL F-EPICHLORHYDRIN (MW ≤700)

Predicted no-effect concentration - PNEC								
Normal value in fresh water						0,003	mg/l	
Normal value in marine water						0,0003	mg/l	
Normal value for fresh water sediment						0,294	mg/kg/d	
Normal value for marine water sediment						0,0294	mg/kg/d	
Normal value for water, intermittent release						0,0254	mg/l	
Normal value of STP microorganisms						10	mg/l	
Normal value for the terrestrial compartment						0,237	mg/kg/d	
Health - Derived no-effect level - DNEL / DMEL								
	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				6,25 mg/kg bw/d				
Inhalation				8,7 mg/m3				29,39 mg/m3
Skin				62,5 mg/kg bw/d	0,0083 mg/cm2			104,15 mg/kg bw/d

PROPYLENE CARBONATE

Predicted no-effect concentration - PNEC								
Normal value in fresh water						0,9	mg/l	
Normal value in marine water						0,09	mg/l	
Normal value for water, intermittent release						0,9	mg/l	
Normal value of STP microorganisms						7400	mg/l	
Normal value for the terrestrial compartment						0,81	mg/kg	
Health - Derived no-effect level - DNEL / DMEL								
	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				10 mg/kg bw/d				
Inhalation			10 mg/m3	17,4 mg/m3			20 mg/m3	70,53 mg/m3
Skin			10 mg/kg bw/d	10 mg/kg bw/d				20 mg/kg bw/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

8.2. Exposure controls

SECTION 8. Exposure controls/personal protection ... / >>

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Handle with protective gloves compliant with standard EN 374, in butyl rubber (0.7 mm) or viton (0.4 mm) and with a permeation time of at least 60 min. The permeation time may vary depending on the glove manufacturer. In the case of a mixture consisting of several substances, it is not possible to accurately estimate the protection time of the gloves. Gloves must be checked before being used and must be replaced as soon as they are damaged or worn. Use an appropriate technique for removing gloves to avoid skin contact with the product. Wash and dry your hands.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear tight-fitting safety goggles or closed protective visors complying with EN 166 and EN 165. Do not use ocular lenses.
RESPIRATORY PROTECTION
Exposed workers must wear an appropriate half-face mask of respiratory protection approved according to EN 140 and / or EN 136, with A1-P2 filters (white-brown color code).
In the event of possible saturation of the environment and / or lack or absence of oxygen, the use of an auto-protector or air supply respirator is recommended.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties		Value	Information
Appearance		paste	
Colour		various colors	
Odour		characteristic	
Odour threshold		not determined	
Melting point / freezing point		not determined	
Initial boiling point		not determined	
Boiling range		not determined	
Flammability		not applicable	Reason for missing data:as a paste
Lower explosive limit		not determined	
Upper explosive limit		not determined	
Flash point	>	60 °C	
Auto-ignition temperature		not determined	
Decomposition temperature		not determined	
pH		not determined	
Kinematic viscosity		not available	Substance:BISPHENOL F-EPICHLORHYDRIN (MW ≤700) Temperature: 20 °C
Dynamic viscosity		8390 mPa.s	
Solubility		not determined	
Partition coefficient: n-octanol/water		3,6	Substance:BISPHENOL F-EPICHLORHYDRIN (MW ≤700) Temperature: 20 °C
Vapour pressure		82 Pa	Substance:BISPHENOL F-EPICHLORHYDRIN (MW ≤700) Temperature: 20 °C
Density and/or relative density		1,55 g/cm3	
Relative vapour density		not determined	
Particle characteristics		not applicable	

9.2. Other information

9.2.1. Information with regard to physical hazard classes

SECTION 9. Physical and chemical properties ... / >>

Information not available

9.2.2. Other safety characteristics

Evaporation rate	not determined
Total solids (250°C / 482°F)	66,30 %
VOC (Directive 2010/75/EU)	32,36 % - 501,63 g/litre
Explosive properties	not explosive
Oxidising properties	non-oxidizing
Water solubility	20 mg/l @ 20°C BISFENOLO F

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances under normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

In normal use and storage conditions dangerous reactions are not predictable. Polymerization does not occur spontaneously.

10.4. Conditions to avoid

Avoid electrostatic discharge.

10.5. Incompatible materials

Avoid contact with oxidizing materials, acids and bases. Avoid accidental contact with amines.

10.6. Hazardous decomposition products

Decomposition products depend on temperature, available air and the presence of other substances. An uncontrolled exothermic reaction of the epoxy resins releases phenolic derivatives, carbon monoxide and water.

SECTION 11. Toxicological information

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

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation) of the mixture:	Not classified (no significant component)
ATE (Oral) of the mixture:	Not classified (no significant component)
ATE (Dermal) of the mixture:	Not classified (no significant component)

SECTION 11. Toxicological information ... / >>

bis-[4-(2,3-epoxipropoxi)phenyl]propane
LD50 (Dermal): 23000 mg/kg rabbit
LD50 (Oral): > 15000 mg/kg Rat

bisphenol-F-epichlorohydrin resin, MM=<700
LD50 (Dermal): > 2000 mg/kg rat
LD50 (Oral): > 2000 mg/kg rat

SILICON DIOXIDE
LD50 (Dermal): > 5000 mg/kg rabbit
LD50 (Oral): > 5000 mg/kg rat
LC50 (Inhalation mists/powders): 0,139 mg/l/4h rat

oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
LD50 (Dermal): > 200 mg/kg rat
LD50 (Oral): 26800 mg/kg rat

BISPHENOL F-EPICHLORHYDRIN (MW ≤700)
LD50 (Dermal): > 2000 mg/kg rabbit
LD50 (Oral): > 2000 mg/kg rat

PROPYLENE CARBONATE
LD50 (Dermal): 2000 mg/kg rabbit
LD50 (Oral): > 5000 mg/kg rat

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

bisphenol-F-epichlorohydrin resin, MM=<700

LC50 - for Fish	2,54 mg/l/96h
EC50 - for Crustacea	2,55 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	1,8 mg/l/72h

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

LC50 - for Fish	2 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea	1,8 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	11 mg/l/72h Scenedesmus

SILICON DIOXIDE

LC50 - for Fish	> 10000 mg/l/96h Brachyodanio rerio

BISPHENOL F-EPICHLORHYDRIN (MW ≤700)

LC50 - for Fish	2,54 mg/l/96h
EC50 - for Crustacea	2,55 mg/l/48h
EC50 - for Algae / Aquatic Plants	> 1000 mg/l/72h

oxirane, mono[(C12-14-alkyloxy)methyl] derivs.

LC50 - for Fish	> 500 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea	6,07 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	843,75 mg/l/72h Pseudokirchnerella

PROPYLENE CARBONATE

LC50 - for Fish	> 1000 mg/l/96h
EC50 - for Crustacea	> 1000 mg/l/48h
EC50 - for Algae / Aquatic Plants	> 900 mg/l/72h

12.2. Persistence and degradability

bisphenol-F-epichlorohydrin resin, MM=<700
Test: OECD 301 B guidance (Development of carbon dioxide CO2)
Result: 16% - No biodegradation - 28 d.
Dose: 10 mg/l (Activated sludge)
Observations: Bisphenol F diglycidyl ether was not readily biodegradable under the conditions of screening studies according to OECD Test Guidelines No. 301B and 301 D. The maximum rate of biodegradation observed in one of the OECD 301 B studies was 16% per 10 mg/l at 28 days of contact.

bisphenol-F-epichlorohydrin resin, MM=<700
NOT rapidly degradable

bis-[4-(2,3-epoxipropoxi)phenyl]propane
Degradability: information not available

BISPHENOL F-EPICHLORHYDRIN (MW ≤700)
NOT rapidly degradable

oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
Rapidly degradable

PROPYLENE CARBONATE
Rapidly degradable

12.3. Bioaccumulative potential

SECTION 12. Ecological information ... / >>

bisphenol-F-epichlorohydrin resin, MM=<700
Partition coefficient: n-octanol/water 3,3
BCF 150

BISPHENOL F-EPICHLORHYDRIN (MW ≤700)
Partition coefficient: n-octanol/water 3,3
BCF 150

oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
BCF 263

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number or ID number

ADR / RID, IMDG, IATA: UN 3082

ADR / RID: In accordance with Special Provision 375, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to ADR provisions.

IMDG: In accordance with Section 2.10.2.7 of IMDG Code, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to IMDG Code provisions.

IATA: In accordance with SP A197, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to IATA dangerous goods regulations.

14.2. UN proper shipping name

ADR / RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Bis[4-(2,3-epoxy propoxy) phenyl] propane; Bisphenol F-epichlorhydrin (MW ≤700))
IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Bis[4-(2,3-epoxy propoxy) phenyl] propane; Bisphenol F-epichlorhydrin (MW ≤700))
IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Bis[4-(2,3-epoxy propoxy) phenyl] propane; Bisphenol F-epichlorhydrin (MW ≤700))

SECTION 14. Transport information ... / >>

14.3. Transport hazard class(es)

ADR / RID:	Class: 9	Label: 9	
IMDG:	Class: 9	Label: 9	
IATA:	Class: 9	Label: 9	

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous	
IMDG:	Marine Pollutant	
IATA:	Environmentally Hazardous	

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 90	Limited Quantities: 5 L	Tunnel restriction code: (-)
	Special provision: 274, 335, 375, 601		
IMDG:	EMS: F-A, S-F	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 450 L	Packaging instructions: 964
	Passengers:	Maximum quantity: 450 L	Packaging instructions: 964
	Special provision:	A97, A158, A197, A215	

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EU: E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product
Point 3 - 40
Contained substance
Point 75

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors
not applicable

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage ≥ than 0,1%.

Substances subject to authorisation (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

SECTION 15. Regulatory information ... / >>

None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

A chemical safety assessment has been performed for the following contained substances
bis-[4-(2,3-epoxipropoxi)phenyl]propane
BISPHENOL F-EPICHLORHYDRIN (MW ≤700)
PROPYLENE CARBONATE
This safety data sheet contains one or more Exposure Scenarios in an integrated form. Contents have been included in sections 1.2, 8, 9, 12, 15 and 16 of this safety data sheet.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 4	Acute toxicity, category 4
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
EUH205	Contains epoxy constituents. May produce an allergic reaction.

Use descriptor system:

ERC	8b	Widespread use of reactive processing aid (no inclusion into or onto article, indoor)
ERC	8e	Widespread use of reactive processing aid (no inclusion into or onto article, outdoor)
PC	1	Adhesives, sealants
PROC	10	Roller application or brushing
PROC	11	Non industrial spraying
PROC	19	Manual activities involving hand contact

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent, bioaccumulative and toxic
- PEC: Predicted environmental Concentration

SECTION 16. Other information ... / >>

- PEL: Predicted exposure level
- PMT: Persistent, mobile and toxic
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very persistent and very bioaccumulative
- vPvM: Very persistent and very mobile
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)
23. Delegated Regulation (UE) 2023/707

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION
Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.
Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.
Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Changes to previous review:
The following sections were modified:
02 / 03 / 04 / 08 / 09 / 11 / 12 / 14 / 15 / 16.