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: **ELIOXA**
Product name **ELIOX A**

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

Intended use **epoxy mastic part A**

Identified Uses	Industrial	Professional	Consumer
ADHESIVE SYSTEM/TREATMENT FOR STONE SECTOR	✓	✓	-

1.3. Details of the supplier of the safety data sheet

Name **TENAX SPA**
Full address **Via I Maggio, 226**
District and Country **37020 Volargne (VR)**
Italy
Tel. +39 045 6887593
Fax +39 045 6862456

e-mail address of the competent person responsible for the Safety Data Sheet **msds@tenax.it**

1.4. Emergency telephone number

For urgent inquiries refer to

Ireland
National Poisons Information Centre, Beaumont Hospital, PO Box 1297, Beaumont Road, Dublin 9
Members of the public: 01 809 2166 (8am to 10pm every day)
Healthcare professionals: 01 809 2566 or 01 837 9964 (24 hours)

Malta
112

0 800 314 7900 (Turkey) only, or +90 0312 433 70 01 - Toxicology Department and Poisons Centre
+98 21 6419306 / +98 21 6405569 - Poisons Information Centre (Tehran)
+91 484 4008056 - Poison Control Centre (South India)
(011) 642 2417 / (011) 488 3108 - Anti-Poison Centre (Johannesburg)

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:

Eye irritation, category 2	H319	Causes serious eye irritation.
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: Warning

Hazard statements:

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.

Precautionary statements:

P280	Wear protective gloves / eye protection / face protection.
P273	Avoid release to the environment.
P391	Collect spillage.
P261	Avoid breathing dust / fume / gas / mist / vapours / spray.

Contains: OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL] DERIVS.
BISPHENOL F DIGLYCIDYL ETHER, ISOMER MIXTURE
BIS-[4-(2,3-EPOXIPROPOXI)PHENYL]PROPANE
TRIS (4-NONYLPHENOL, BRANCHED) PHOSPHITE

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 contains substances with endocrine disrupting properties in concentration ≥ 0,1%:
TRIS (4-NONYLPHENOL, BRANCHED) PHOSPHITE

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			
CAS	*1675-54-3*	30 ≤ x < 50	**Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1B H317, Aquatic Chronic 2 H411**
EC	*216-823-5*		**Skin Irrit. 2 H315: ≥ 5%, Eye Irrit. 2 H319: ≥ 5%**
INDEX	*603-073-00-2*		
REACH Reg.	*01-2119456619-26*		
BISPHENOL F DIGLYCIDYL ETHER, ISOMER MIXTURE			
CAS		15 ≤ x < 25	**Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC	*701-263-0*		
INDEX			
REACH Reg.	*01-2119454392-40*		
OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL] DERIVS.			
CAS	*68609-97-2*	5 ≤ x < 10	**Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317**
EC	*271-846-8*		
INDEX	*603-103-00-4*		
REACH Reg.	*01-2119485289-22*		

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

BENZYL ALCOHOL

CAS	*100-51-6*	1 ≤ x < 3,5	**Acute Tox. 4 H302, Acute Tox. 4 H332, Eye Irrit. 2 H319**
EC	*202-859-9*		**LD50 Oral: 1230 mg/kg, STA Inhalation vapours: 11 mg/l**
INDEX	*603-057-00-5*		
REACH Reg.	*01-2119492630-38*		

TRIS (4-NONYLPHENOL, BRANCHED) PHOSPHITE

CAS	*26523-78-4*	0,2 ≤ x < 0,25	**Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC	*247-759-6*		
INDEX			
REACH Reg.	*01-2119520601-54-XXXX*		

2,6-TERT BUTYL-P-CRESOL

CAS	*128-37-0*	0,1 ≤ x < 0,15	**Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC	*204-881-4*		
INDEX			
REACH Reg.	*01-2119565113-46*		

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

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. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.
INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless 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

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.

SECTION 6. Accidental release measures ... / >>

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

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

BGR	България	НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. ЗА ЗАЩИТА НА РАБОТЕЩИТЕ ОТ РИСКОВЕ, СВЪРЗАНИ С ЕКСПОЗИЦИЯ НА ХИМИЧНИ АГЕНТИ ПРИ РАБОТА (изм. ДВ. бр.5 от 17 Януари 2020г.)
CZE	Česká Republika	Nařízení vlády č. 41/2020 Sb. Nařízení vlády, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci, ve znění pozdějších předpisů
DEU	Deutschland	Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56
ESP	España	Límites de exposición profesional para agentes químicos en España 2021
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
FIN	Suomi	HTP-VÄRDEN 2020. Koncentrationer som befunnits skadliga. SOCIAL - OCH HÄLSOVÅRDSMINISTERIETS PUBLIKATIONER 2020:25
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
NOR	Norge	Forskrift om endring i forskrift om tiltaksverdier og grenseverdier for fysiske og kjemiske faktorer i arbeidsmiljøet samt smitterisikogrupper for biologiske faktorer (forskrift om tiltaks- og grenseverdier), 21. august 2018 nr. 1255
PRT	Portugal	Decreto-Lei n.º 1/2021 de 6 de janeiro, valores-limite de exposição profissional indicativos para os agentes químicos. Decreto-Lei n.º 35/2020 de 13 de julho, proteção dos trabalhadores contra os riscos ligados à exposição durante o trabalho a agentes cancerígenos ou mutagénicos
POL	Polska	Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
SVN	Slovenija	Pravilnik o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu (Uradni list RS, št. 100/01, 39/05, 53/07, 102/10, 43/11 – ZVZD-1, 38/15, 78/18 in 78/19)
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)

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

OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL] DERIVS.

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0072	mg/l
Normal value in marine water	0,00072	mg/l
Normal value for fresh water sediment	66,77	mg/kg
Normal value for marine water sediment	6,677	mg/kg
Normal value for water, intermittent release	0,072	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the terrestrial compartment	80,12	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
Inhalation	2,9 mg/m3	7,6 mg/m3	1,46 mg/m3	4,1 mg/m3	9,8 mg/m3	29 mg/m3	0,98 mg/m3	13,8 mg/m3
Skin	40 mg/kg bw/d	10 mg/kg bw/d	1 mg/kg bw/d	2,35 mg/kg bw/d	68 mg/kg bw/d	17 mg/kg bw/d	1,7 mg/kg bw/d	3,9 mg/kg bw/d

AMORPHOUS SILICATE HYDRATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm		
AGW	DEU	4				INHAL	
MAK	DEU	4				INHAL	
MV	SVN	4				INHAL	

BENZYL ALCOHOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm		
TLV	BGR	5					
TLV	CZE	40	8,88	80	17,76		
AGW	DEU	22	5	44	10	SKIN	11
HTP	FIN	45	10				
NDS/NDSCh	POL	240					
MV	SVN	22	5	44	10	SKIN	

Predicted no-effect concentration - PNEC

Normal value in fresh water	1	mg/l
Normal value in marine water	0,1	mg/l
Normal value for fresh water sediment	5,27	mg/kg
Normal value for marine water sediment	0,527	mg/kg
Normal value for water, intermittent release	2,3	mg/l
Normal value of STP microorganisms	39	mg/l
Normal value for the terrestrial compartment	0,45	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	VND	20 mg/kg bw/d	VND	4 mg/kg bw/d				
Inhalation	VND	27 mg/m3	VND	5,4 mg/m3	VND	110 mg/m3	VND	22 mg/m3
Skin	VND	20 mg/kg bw/d	VND	4 mg/kg bw/d	VND	40 mg/kg bw/d	VND	8 mg/kg bw/d

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

2,6-TERT BUTYL-P-CRESOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm		
AGW	DEU	10				SKIN	40mg/m3
VLEP	FRA	10					
HTP	FIN	10		20			
VLE	PRT	2					
WEL	GBR	10		30			

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,00019	mg/l
Normal value in marine water	0,000019	mg/l
Normal value for fresh water sediment	0,00001	mg/kg/d
Normal value for marine water sediment	0,0996	mg/kg/d
	0,00996	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				0,25 mg/kg bw/d				0,5 mg/kg bw/d
Inhalation				0,86 mg/m3				3,5 mg/m3
Skin				0,25 mg/kg bw/d				0,5 mg/kg bw/d

Siloxanes and Silicones, di-Me, reaction products with silica

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	4				INHAL
VLA	ESP	10				INHAL
VLA	ESP	3				RESP
VLEP	FRA	10				INHAL
VLEP	FRA	5				RESP
HTP	FIN	5				
VLEP	ITA	10				INHAL
VLEP	ITA	3				RESP
TLV	NOR	1,5				RESP

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	0,996	mg/kg/d
Normal value for marine water sediment	0,0996	mg/kg/d
Normal value for water, intermittent release	0,018	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the terrestrial compartment	0,196	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		0,75 mg/m3		0,75 mg/m3		12,25 mg/m3		12,25 mg/m3
Skin		3,571 mg/kg bw/d		3,571 mg/kg bw/d		8,3 mg/kg bw/d		8,3 mg/kg bw/d

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

BISPHENOL F DIGLYCIDYL ETHER, ISOMER MIXTURE		
Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,003	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 of STP microorganisms	10	mg/l

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				104,15 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

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
Protect hands with category III work gloves.
The following should be considered when choosing work glove material (see standard EN 374): compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
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 airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
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.

HAND PROTECTION: Protect hands with work gloves for protection from chemical agents in nitrile or fluoroelastomer (EN 374-1: 2016) at least type B or higher based on the risk assessment carried out by the company. Breakthrough time> 480 minutes.
Material thickness:
NITRILE
short contact> 0.38 mm
prolonged contact> 0.55 mm
FLUOROELASTOMER
short contact> 0.50 mm
prolonged contact> 1.50 mm

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties		Value	Information
Appearance		paste	
Colour		transparent	
Odour		characteristic	
Melting point / freezing point		not available	
Initial boiling point		not available	
Flammability		not available	
Lower explosive limit		not available	
Upper explosive limit		not available	
Flash point	>	60 °C	
Auto-ignition temperature		not available	
pH		not available	Reason for missing data:substance/mixture is non-polar/aprotic (eg: an organic solvent mixture)
Kinematic viscosity		not available	
Solubility		insoluble in water	
Partition coefficient: n-octanol/water		not available	
Vapour pressure		not available	
Density and/or relative density		1,25 g/cm3	
Relative vapour density		not available	
Particle characteristics		not applicable	

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

VOC (Directive 2010/75/EU)	1,58 %	-	19,72	g/litre

SECTION 10. Stability and reactivity

10.1. Reactivity

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

BENZYL ALCOHOL
Decomposes at temperatures above 870°C/1598°F.Possibility of explosion.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

BENZYL ALCOHOL
May react dangerously with: hydrobromic acid,iron,oxidising agents,sulphuric acid.Risk of explosion on contact with: phosphorus trichloride.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

BENZYL ALCOHOL
Avoid exposure to: air,sources of heat,naked flames.

10.5. Incompatible materials

BENZYL ALCOHOL
Incompatible with: sulphuric acid,oxidising substances,aluminium.
BIS-[4-(2,3-EPOXIPROPOXI)PHENYL]PROPANE
Avoid contact with: acids,bases,oxidising substances.
Avoid unintended contact with amines.

SECTION 10. Stability and reactivity ... / >>

10.6. Hazardous decomposition products

BIS-[4-(2,3-EPOXIPROPOXI)PHENYL]PROPANE
The decomposition products depend on the temperature, the available air and the presence of other substances.
An uncontrolled exothermic reaction of epoxy resins liberates phenolic derivatives, carbon monoxide and water.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

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 - vapours) of the mixture:	> 20 mg/l
ATE (Oral) of the mixture:	>2000 mg/kg
ATE (Dermal) of the mixture:	Not classified (no significant component)

OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL] DERIVS.

LD50 (Dermal):	> 200 mg/kg ratto
LD50 (Oral):	26800 mg/kg ratto

BENZYL ALCOHOL

LD50 (Dermal):	2000 mg/kg Rabbit
LD50 (Oral):	1230 mg/kg Rat
LC50 (Inhalation vapours):	> 4,1 mg/l/4h Rat
STA (Inhalation vapours):	11 mg/l estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)

2,6-TERT BUTYL-P-CRESOL

LD50 (Dermal):	> 2000 mg/kg rat
LD50 (Oral):	> 6000 mg/kg rat

TRIS (4-NONYLPHENOL, BRANCHED) PHOSPHITE

LD50 (Dermal):	> 2000 mg/kg coniglio
LD50 (Oral):	> 2000 mg/kg ratto

BIS-[4-(2,3-EPOXIPROPOXI)PHENYL]PROPANE

LD50 (Dermal):	23000 mg/kg Coniglio
LD50 (Oral):	15000 mg/kg Ratto

BISPHENOL F DIGLYCIDYL ETHER, ISOMER MIXTURE

LD50 (Dermal):	> 2000 mg/kg Ratto
LD50 (Oral):	> 2000 mg/kg Ratto

SKIN CORROSION / IRRITATION

Causes skin irritation

SECTION 11. Toxicological information ... / >>

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

Respiratory sensitization

Information not available

Skin sensitization

Information not available

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

Adverse effects on sexual function and fertility

Information not available

Adverse effects on development of the offspring

Information not available

Effects on or via lactation

Information not available

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

Target organs

Information not available

Route of exposure

Information not available

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

Target organs

Information not available

Route of exposure

Information not available

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 11. Toxicological information ... / >>

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

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 subcapitata

BENZYL ALCOHOL

LC50 - for Fish	770 mg/l/96h Pimephales promelas
EC50 - for Crustacea	230 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	770 mg/l/72h Pseudokirchneriella subcapitata
Chronic NOEC for Crustacea	51 mg/l Daphnia magna

2,6-TERT BUTYL-P-CRESOL

LC50 - for Fish	0,199 mg/l/96h
EC50 - for Crustacea	0,48 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	> 0,42 mg/l/72h
EC10 for Crustacea	0,069 mg/l/48h
Chronic NOEC for Fish	0,053 mg/l
Chronic NOEC for Crustacea	0,069 mg/l

TRIS (4-NONYLPHENOL, BRANCHED) PHOSPHITE

LC50 - for Fish	7,1 mg/l/96h pesce zebra
EC50 - for Crustacea	0,42 mg/l/48h daphnia magna
LC10 for Fish	44 mg/l/28d

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 capricornutum

BISPHENOL F DIGLYCIDYL ETHER, ISOMER MIXTURE

LC50 - for Fish	2,54 mg/l/96h Pesce di acqua dolce
EC50 - for Crustacea	> 1000 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	> 1,8 mg/l/72h Selenastrum capricornutum

12.2. Persistence and degradability

OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL] DERIVS.
Rapidly degradable

BENZYL ALCOHOL
Rapidly degradable

2,6-TERT BUTYL-P-CRESOL
NOT rapidly degradable

BIS-[4-(2,3-EPOXIPROPOXI)PHENYL]PROPANE
NOT rapidly degradable

BISPHENOL F DIGLYCIDYL ETHER, ISOMER MIXTURE
NOT rapidly degradable

12.3. Bioaccumulative potential

SECTION 12. Ecological information ... / >>

OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL] DERIVS.
Partition coefficient: n-octanol/water 3,77

BENZYL ALCOHOL
Partition coefficient: n-octanol/water 1,1

2,6-TERT BUTYL-P-CRESOL
BCF > 230

BIS-[4-(2,3-EPOXIPROPOXI)PHENYL]PROPANE
Partition coefficient: n-octanol/water 3,242 Log Kow

BISPHENOL F DIGLYCIDYL ETHER, ISOMER MIXTURE
Partition coefficient: n-octanol/water 3,6
BCF 150

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 contains the following endocrine disruptors in concentrations of 0.1% or greater by weight that may have endocrine disrupting effects on the environment and on animal species causing adverse effects on the exposed organisms or on their progeny:
TRIS (4-NONYLPHENOL, BRANCHED) PHOSPHITE

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: 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-EPOXIPROPOXI)PHENYL]PROPANE; BISPHENOL F DIGLYCIDYL ETHER, ISOMER MIXTURE)
IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BIS-[4-(2,3-EPOXIPROPOXI)PHENYL]PROPANE; BISPHENOL F DIGLYCIDYL ETHER, ISOMER MIXTURE)
IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

SECTION 14. Transport information ... / >>

(BIS-[4-(2,3-EPOXIPROPOXI)PHENYL]PROPANE; BISPHENOL F DIGLYCIDYL ETHER, ISOMER MIXTURE)

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 Special provision: -	Limited Quantities: 5 L	Tunnel restriction code: (-)
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
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)
TRIS (4-NONYLPHENOL, BRANCHED) PHOSPHITE
REACH Reg.: 01-2119520601-54-XXXX

Substances subject to authorisation (Annex XIV REACH)

SECTION 15. Regulatory information ... / >>

None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:
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
BENZYL ALCOHOL
BIS-[4-(2,3-EPOXIPROPOXI)PHENYL]PROPANE

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 Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

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 as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- 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

SECTION 16. Other information ... / >>

- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- 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)

- 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:
01 / 02 / 03 / 08 / 09 / 10 / 11 / 12 / 14 / 15 / 16.