

XEPOXF fluid componente A

Safety Data Sheet

According to Annex II to REACH - Regulation 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

Product name

XEPOXF400 Fluid componente A
XEPOXF3000 Fluid componente A
XEPOXF5000 Fluid componente A
XEPOX Fluid componente A
XEPOX26 componente A

UFI:

EK50-70J9-S00C-2GG3

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

Intended use

Component A for the preparation of two-component epoxy adhesive

Identified Uses

TWO-COMPONENT EPOXY ADHESIVE

Industrial

ERC: 8a, 8b, 8c, 8d, 8f.
 PROC: 10, 5.
 PC: 1.

Professional

ERC: 7, 8a, 8b, 8c, 8d, 8f.
 PROC: 10, 5.
 PC: 1.

Consumer

-

1.3. Details of the supplier of the safety data sheet

Name

Full address

District and Country

Rotho Blaas Srl
via dell'Adige 2/1 -
39040 Cortaccia (BZ)
ITALY

Tel. +39 0471 81 84 00

e-mail address of the competent person

responsible for the Safety Data Sheet

reach@rothoblaas.com

1.4. Emergency telephone number

For urgent inquiries refer to

UK NPIS 0344 892 0111
Ireland NPIC (01) 809 2566

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.

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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.
EUH205	Contains epoxy constituents. May produce an allergic reaction.

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] derivatives 1,4-Bis (2,3-epoxypropoxy) butane 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane MALEIC ANHYDRIDE Fatty acids, C14-18 and C16-18-unsatd., maleated
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2.3. Other hazards

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

The product does not contain substances with endocrine disrupting properties in concentration $\geq$ 0.1%.

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SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane INDEX - EC 216-823-5 CAS 1675-54-3 REACH Reg. 01-2119456619-26-XXXX	$50 \leq x < 75$	Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411
Oxirane, mono [(C12-14-alkyloxy) methyl] derivatives INDEX 603-103-00-4 EC 271-846-8 CAS 68609-97-2 REACH Reg. 01-2119485289-22-xxxx	$1 \leq x < 5$	Skin Irrit. 2 H315, Skin Sens. 1 H317
1,4-Bis (2,3-epoxypropoxy) butane INDEX 603-072-00-7 EC 219-371-7 CAS 2425-79-8 REACH Reg. 01-2119494060-45-xxxx	$1 \leq x < 3$	Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 3 H412 LD50 Oral: >1000 mg/kg, STA Dermal: 1100 mg/kg, STA Inhalation vapours: 11 mg/l, STA Inhalation mists/powders: 1,5 mg/l
XYLENE (MIXTURE OF ISOMERS) INDEX 601-022-00-9 EC 215-535-7 CAS 1330-20-7 REACH Reg. 01-2119488216-32-xxxx	$0 \leq x < 1$	Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332, Asp. Tox. 1 H304, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Classification note according to Annex VI to the CLP Regulation: C STA Dermal: 1100 mg/kg, STA Inhalation vapours: 11 mg/l
Fatty acids, C14-18 and C16-18-unsatd., maleated INDEX - EC 701-043-4 CAS 85711-46-2 REACH Reg. 01-2119976378-19-0000	$0 \leq x < 1$	Skin Irrit. 2 H315, Skin Sens. 1 H317
ETHYLBENZENE INDEX 601-023-00-4 EC 202-849-4 CAS 100-41-4 REACH Reg. 01-2119489370-35-0010 01-2119489370-35-xxxx	$0 \leq x < 1$	Flam. Liq. 2 H225, Acute Tox. 4 H332, Asp. Tox. 1 H304, STOT RE 2 H373 LC50 Inhalation vapours: 17,2 mg/l/4h
MALEIC ANHYDRIDE INDEX 607-096-00-9 EC 203-571-6 CAS 108-31-6	$0,001 \leq x < 0,1$	Acute Tox. 4 H302, STOT RE 1 H372, Skin Corr. 1B H314, Eye Dam. 1 H318, Resp. Sens. 1 H334, Skin Sens. 1A H317, EUH071 Skin Sens. 1A H317: $\geq 0,001\%$ LD50 Oral: 1090 mg/kg

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. Rinse skin with a shower immediately. Get medical advice/attention 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

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Information not available

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.

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

If possible contain the spilled material. Absorb with materials such as: Sand. Collect in suitable and correctly labeled containers.

Provide sufficient ventilation of the place affected by the leak. The disposal of contaminated material must be carried out in accordance with the provisions of 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

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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)

See the exposure scenarios attached to this safety datasheet.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

BGR	Bългария	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
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
ROU	România	Hotărârea nr. 53/2021 pentru modificarea hotărârii guvernului nr. 1.218/2006, precum și pentru modificarea și completarea hotărârii guvernului nr. 1.093/2006
SWE	Sverige	Hygieniska gränsvärden, Arbetsmiljöverkets föreskrifter och allmänna råd om hygieniska gränsvärden (AFS 2018:1)
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)
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2021

2,2' - [(1-methylethylidene) bis (4,1-phenyleneoxymethylene)] bisoxirane

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
Normal value for marine water sediment	0,0996	mg/kg
Normal value for water, intermittent release	0,018	mg/l

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Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	11	mg/kg
Normal value for the terrestrial compartment	0,196	mg/kg

Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	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						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 carbonate

Threshold Limit Value						
Type	Country	TWA/8h	STEL/15min	Remarks / Observations		
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	10		INHAL		
WEL	GBR	4		RESP		

CALCIUM CARBONATE

Threshold Limit Value						
Type	Country	TWA/8h	STEL/15min	Remarks / Observations		
		mg/m3	ppm	mg/m3	ppm	
VLEP	FRA	10				
NDS/NDSch	POL	10		INHAL		

Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation			1,06 mg/m3	10 mg/m3			4,26 mg/m3	10 mg/m3

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

Predicted no-effect concentration - PNEC		
Normal value in fresh water	105,8	µg/L
Normal value in marine water	1058	µg/L
Normal value for fresh water sediment	307,16	mg/kg
Normal value for marine water sediment	30,72	mg/kg
Normal value for water, intermittent release	0,072	µg/L
Normal value of STP microorganisms	10	mg/l
Normal value for the atmosphere	NPI	

Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI		0,5 mg/kg bw/d				
Inhalation		NPI		0,87 mg/m3		NPI		3,6 mg/m3
Skin		NPI		0,5 mg/kg bw/d		NPI		1 mg/kg bw/d

TITANIUM DIOXIDE

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Threshold Limit Value						
Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	10				RESP
VLA	ESP	10				
VLEP	FRA	10				
TLV	NOR	5				
NDS/NDSch	POL	10				INHAL
TLV	ROU	10		15		
NGV/KGV	SWE	5				Totaldamm
WEL	GBR	10				INHAL
WEL	GBR	4				RESP
TLV-ACGIH		2,5				RESP

1,4-bis(2,3 epoxypropoxy)butane

Predicted no-effect concentration - PNEC						
Normal value in fresh water				0,024		mg/l
Normal value in marine water				0,0024		mg/l
Normal value for fresh water sediment				0,084		mg/kg/d
Normal value for marine water sediment				0,0084		mg/kg/d
Normal value for water, intermittent release				0,24		mg/l
Normal value for the food chain (secondary poisoning)				0,028		mg/kg
Normal value for the terrestrial compartment				0,0027		mg/kg/d

Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers			Chronic systemic	Effects on workers			Chronic systemic
	Acute local	Acute systemic	Chronic local		Acute local	Acute systemic	Chronic local	
Oral				0,33 mg/kg bw/d				
Inhalation				1,16 mg/m3				4,7 mg/m3
Skin				3,33 mg/kg bw/d				6,66 mg/kg bw/d

XYLENE (MIXTURE OF ISOMERS)

Threshold Limit Value						
Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	221	50	442	100	SKIN
TLV	CZE	200	45,4	400	90,8	SKIN
AGW	DEU	440	100	880	200	SKIN
MAK	DEU	440	100	880	200	SKIN
VLA	ESP	221	50	442	100	SKIN
VLEP	FRA	221	50	442	100	SKIN
VLEP	ITA	221	50	442	100	SKIN
TLV	NOR	108	25			SKIN
VLE	PRT	221	50	442	100	SKIN
NDS/NDSch	POL	100		200		SKIN

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TLV	ROU	221	50	442	100	SKIN
NGV/KGV	SWE	221	50	442	100	SKIN
MV	SVN	221	50	442	100	SKIN
WEL	GBR	220	50	441	100	SKIN
OEL	EU	221	50	442	100	SKIN
TLV-ACGIH			20			

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,327	mg/l
Normal value in marine water	0,327	mg/l
Normal value for fresh water sediment	12,46	mg/kg
Normal value for marine water sediment	12,46	mg/kg
Normal value of STP microorganisms	6,58	mg/l
Normal value for the terrestrial compartment	2,31	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				1,7 mg/kg bw/d				
Inhalation		174 mg/m3		14,8 mg/m3		289 mg/m3		77 mg/m3
Skin				108 mg/kg bw/d				180 mg/kg bw/d

ETHYLBENZENE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	435		545		SKIN
TLV	CZE	200	45,4	500	113,5	SKIN
AGW	DEU	88	20	176	40	SKIN
MAK	DEU	88	20	176	40	SKIN
VLA	ESP	441	100	884	200	SKIN
VLEP	FRA	88,4	20	442	100	SKIN
VLEP	ITA	442	100	884	200	SKIN
TLV	NOR	20	5			SKIN
VLE	PRT	442	100	884	200	SKIN
NDS/NDSch	POL	200		400		SKIN
TLV	ROU	442	100	884	200	SKIN
NGV/KGV	SWE	220	50	884	200	SKIN
MV	SVN	442	100	884	200	SKIN
WEL	GBR	441	100	552	125	SKIN
OEL	EU	442	100	884	200	SKIN
TLV-ACGIH		87	20			

MALEIC ANHYDRIDE

Threshold Limit Value

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
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		mg/m3	ppm	mg/m3	ppm			
TLV	BGR	1						
TLV	CZE	1	0,245	2	0,49			
AGW	DEU	0,081	0,02	0,081 (C)	0,02 (C)			
MAK	DEU	0,081	0,02	0,081 (C)	0,02 (C)	C = 0,20 mg/m3		
VLA	ESP	0,4	0,1					
VLEP	FRA			1				
TLV	NOR	0,8	0,2					
NDS/NDSch	POL	0,5		1		SKIN		
TLV	ROU	1	0,25	3	0,75			
NGV/KGV	SWE	0,2	0,05	0,4	0,1			
MV	SVN	0,41	0,1	0,41	0,1			
WEL	GBR	1		3				
TLV-ACGIH		0,01	0,0025			DSEN; RSEN; A4		
Predicted no-effect concentration - PNEC								
Normal value in fresh water				0,038	mg/l			
Normal value in marine water				0,004	mg/l			
Normal value for fresh water sediment				0,296	mg/kg/d			
Normal value for marine water sediment				0,03	mg/kg/d			
Normal value of STP microorganisms				44,6	mg/l			
Normal value for the terrestrial compartment				0,037	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
Inhalation					0,2 mg/m3	0,2 mg/m3	0,081 mg/m3	0,081 mg/m3
Skin								

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.

When choosing risk management measures and operating conditions, consult the exposure scenarios attached.

Provide an emergency shower with face and eye wash station.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

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The following should be considered when choosing work glove material: 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.

For information on controlling environmental exposure, see the exposure scenarios attached to this safety datasheet.

2,2'-[(1-methylethylidene) bis (4,1-phenyleneoxymethylene)] bisoxirane

Hand skin protection:

Chemical resistant and impermeable gloves conforming to approved standards should always be used when handling chemicals if the risk assessment indicates this is necessary.

Considering the parameters specified by the glove manufacturer, check during use that the gloves still maintain their protective properties. Note that the breakthrough time for any glove material may vary depending on the glove manufacturer. of mixtures composed of several substances, it is not possible to accurately estimate the protection time of the gloves.

Material: 730 Camatril

Minimum breakthrough time: 480 min

Material: 898 Butoject

Minimum breakthrough time: 480 min

Manufacturer: This recommendation is only valid for our product in the delivery conditions. If this product will be mixed with other substances, you will need to contact a supplier of CE approved protective gloves.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	white	
Odour	characteristic	
Melting point / freezing point	not available	
Initial boiling point	> 80 °C	
Flammability	not available	
Lower explosive limit	not available	
Upper explosive limit	not available	

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XEPOXF fluid componente A

Flash point	> 80 °C	
Auto-ignition temperature	not available	
Decomposition temperature	not available	
pH	not available	Reason for missing data:substance/mixture is non-soluble (in water)
Kinematic viscosity	>20,5 mm2/sec (40°C)	
Dynamic viscosity	14000 mPa.s	Temperature: 25 °C
Solubility	soluble in organic solvents	
Partition coefficient: n-octanol/water	not available	
Vapour pressure	not available	
Density and/or relative density	1,45 g/cm3	Temperature: 25 °C
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)	0,80 % - 11,64 g/litre
VOC (volatile carbon)	0,66 % - 9,60 g/litre

SECTION 10. Stability and reactivity

1,4-bis(2,3 epoxypropoxy)butane

10.1. Reactivity

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

2,2'-[(1-methylethylidene) bis (4,1-phenyleneoxymethylene)] bisoxirane

Reacts with: amines,aliphatic amines,amides,organic anhydrides.

Avoid contact with: strong oxidising agents,sodium hydroxide.

1,4-bis(2,3 epoxypropoxy)butane

Reacts with: amides,amines,aliphatic amines,organic anhydrides.

Avoid contact with: acids,oxidising agents.

10.2. Chemical stability

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

2,2'-[(1-methylethylidene) bis (4,1-phenyleneoxymethylene)] bisoxirane

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XEPOXF fluid componente A

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.

XYLENE (MIXTURE OF ISOMERS)

Stable in normal conditions of use and storage. Reacts violently with: strong oxidants, strong acids, nitric acid, perchlorates. May form explosive mixtures with: air.

ETHYLBENZENE

Reacts violently with: strong oxidants. Attacks various types of plastic materials. May form explosive mixtures with: air.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

2,2'-[(1-methylethylidene) bis (4,1-phenyleneoxymethylene)] bisoxirane

In decomposition develops: carbon monoxide, halogenated compounds.

ETHYLBENZENE

May develop: methane, styrene, hydrogen, ethane.

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

XYLENE (MIXTURE OF ISOMERS)

WORKERS: inhalation; contact with the skin.

POPULATION: ingestion of contaminated food or water; inhalation of ambient air.

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XEPOXF fluid componente A

ETHYLBENZENE

WORKERS: inhalation; contact with the skin.

POPULATION: ingestion of contaminated food or water; contact with the skin of products containing the substance.

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

XYLENE (MIXTURE OF ISOMERS)

Toxic effect on the central nervous system (encephalopathy); irritating for the skin, conjunctiva, cornea and respiratory apparatus.

ETHYLBENZENE

As the counterparts of benzene, may have an acute effect on the central nervous system, with depression, narcosis, often preceded by dizziness and associated with headache (Ispe). Is irritating for skin, conjunctiva and respiratory tract.

Interactive effects

XYLENE (MIXTURE OF ISOMERS)

Intake of alcohol interferes with the metabolism of the substance, inhibiting it. Ethanol consumption (0.8 g/kg) before a 4-hour exposure to xylene vapours (145 and 280 ppm) causes a 50% reduction in the excretion of methyl hippuric acid, whereas the concentration of xylenes in the blood increases approx. 1.5-2 times. At the same time there is an increase in the secondary side effects of the ethanol. The metabolism of the xylenes is increased by phenobarbital and 3-methyl-colantrene type enzyme inducers. Aspirin and xylenes mutually inhibit their conjugation with the glycine, which results in a decrease in urinary excretion of methyl hippuric acid. Other industrial products can interfere with the metabolism of xylenes.

ACUTE TOXICITY

ATE (Inhalation - mists / powders) of the mixture:	> 5 mg/l
ATE (Inhalation - vapours) of the mixture:	> 20 mg/l
ATE (Oral) of the mixture:	>2000 mg/kg
ATE (Dermal) of the mixture:	>2000 mg/kg

2,2'-[(1-methylethylidene) bis (4,1-phenyleneoxymethylene)] bisoxirane

LD50 (Dermal):	> 2000 mg/kg Metodo: Linee Guida 402 per il Test dell'OECD
LD50 (Oral):	> 2000 mg/kg Metodo: Linee Guida 420 per il Test dell'OECD

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

LD50 (Dermal):	> 4000 mg/kg
LD50 (Oral):	26800 mg/kg
LC50 (Inhalation vapours):	> 0,15 mg/l Tempo di esposizione: 7 h

1,4-bis(2,3 epoxypropoxy)butane

LD50 (Dermal):	> 2150 mg/kg Rat
STA (Dermal):	1100 mg/kg estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)
LD50 (Oral):	> 1000 mg/kg Rat

XYLENE (MIXTURE OF ISOMERS)

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XEPOXF fluid componente A

LD50 (Dermal):	4350 mg/kg Rabbit
STA (Dermal):	1100 mg/kg estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)
LD50 (Oral):	3523 mg/kg Rat
LC50 (Inhalation vapours):	26 mg/l/4h Rat

c14-18 and c16-18 unsaturated, maleate fatty acids

LD50 (Oral):	> 2000 mg/kg rat
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ETHYLBENZENE

LD50 (Dermal):	15354 mg/kg Rabbit
LD50 (Oral):	3500 mg/kg Rat
LC50 (Inhalation vapours):	17,2 mg/l/4h Rat

MALEIC ANHYDRIDE

LD50 (Dermal):	2620 mg/kg Rabbit
LD50 (Oral):	1090 mg/kg rat

SKIN CORROSION / IRRITATION

Causes skin irritation

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

Species: Rabbit

Exposure time: 24 h

Method: Acute dermal toxicity

Result: Irritating to skin.

1,4-bis(2,3 epoxypoxy)butane

Species: Rabbit

Assessment: No skin irritation

Method: OECD Test Guideline 404

Result: Evaluated on the basis of scientific evidence on humans

BPL: yes.

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

2,2' - [(1-methylethylidene) bis (4,1-phenyleneoxymethylene)] bisoxirane

Species: Rabbit

Assessment: Mild eye irritant

Method: OECD Test Guideline 405

Result: Irritating to eyes.

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

Species: Rabbit

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XEPOXF fluid componente A

Assessment: No eye irritation
Method: OECD Test Guideline 405
Result: mild irritation.

1,4-bis(2,3 epoxypropoxy)butane
Species: Rabbit
Assessment: Severe eye irritation
Method: OECD Test Guideline 405
Result: Irreversible effects on the eyes
BPL: yes.

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

Skin sensitization

2,2'-[(1-methylethylidene) bis (4,1-phenyleneoxymethylene)] bisoxirane
In a study with LLNA assay on mice conducted according to OECD standard no. 429, the estimated EC3 corresponded to a concentration of 5.7%; this result suggests that BADGE is a moderate skin sensitizer in this test system. In a study of maximization on guinea pig according to OECD standard no. 406, BADGE induced a positive skin reaction in 100% of the experimental animals at a stimulus dose with a concentration of 50%. Therefore, BADGE is an "extreme" skin sensitizer under the conditions of this study. BADGE was also positive for skin sensitization in a study with the Buehler method on guinea pigs conducted according to OECD standard no. 406.

Oxiran, mono[(C12-14-alkyloxy)methyl] derivs.
Test type: Buehler Test
Route of exposure: Skin
Species: Guinea pig
Method: OPPTS 870.2600
Result: May cause sensitization by skin contact.

1,4-bis(2,3 epoxypropoxy)butane
Route of exposure: Skin
Species: Guinea pig
Result: Causes sensitization.

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

2,2'-[(1-methylethylidene) bis (4,1-phenyleneoxymethylene)] bisoxirane
In several studies, BADGE was found to induce gene mutation in experimental Ames / Salmonella TA1535 and TA100 strains. In general, mutagenic activity was greater without liver S9 metabolic activation. Induced gene mutation in L5178Y mouse lymphoma cells. Induced gene mutation and chromosomal damage in Chinese hamster V79 cells. Induced cell transformation into Syrian hamster BHK cells based on clonal growth in soft agar. It induced no evidence of chromosomal damage in an oral probe study in a mouse dominant lethal test conducted up to a high dose level of 10 grams / kg and in a mouse micronuclear test conducted up to a high dose of 5000 mg / kg. Negative in a male mouse spermatocytic cytogenetic assay with treatment for 5 days by oral tube up to a high dose of 3000 mg / kg. It did not induce an increase in the frequency of chromosomal damage in an oral Chinese hamster bone marrow cell cytogenetic assay up to a high dose of 3300 mg / kg. It did not induce an increase in DNA strand breaks in rat liver cells following oral

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XEPOXF fluid componente A

gavage treatment with 500 mg / kg, measured by alkaline elution.

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

Test type: Ames test

Test System: Salmonella typhimurium

Metabolic activation: with or without metabolic activation

Method: OECD Test Guideline 471

Result: positive

Test type: In vitro mammalian cell gene mutation test

Test System: Chinese Hamster Ovary Cells

Concentration: 0.5 - 5,000 µg / mL

Metabolic activation: with or without metabolic activation

Method: OECD Test Guideline 476

Result: negative.

Test type: In vivo micronucleus test

Species Essay: Mouse (male and female)

Cell type: Bone marrow

Method of application: Intraperitoneal injection

Exposure time: 24 hr, 48 hr, and 72 hr

Method: OECD Test Guideline 474

Result: negative.

1,4-bis(2,3 epoxypropoxy)butane

Concentration: 10 - 5000 ug / plate

Metabolic activation: with or without metabolic activation

Method: OECD Test Guideline 471

Result: positive

BPL: yes

Concentration: 1 - 100 µg / L

Metabolic activation: with or without metabolic activation

Method: OECD Test Guideline 473

Result: positive

BPL: yes.

Test type: In vivo micronucleus test

Essay on the species: Mouse

Cell type: Somatic

Application method: Oral

Exposure time: 4 d

Dose: 187.5 - 750 mg / kg

Method: OECD Test Guideline 474

Result: negative

BPL: yes

Test type: unscheduled DNA synthesis test

Essay on the species: Rat

Cell type: Liver cells

Application method: Oral

Method: OECD Test Guideline 486

Result: negative

BPL: yes.

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

2,2'-[(1-methylethylidene) bis (4,1-phenyleneoxymethylene)] bisoxirane

In a rat study with oral probe according to OECD standard no. 453 there was no evidence of carcinogenicity up to the high dose level of 100 mg / kg / day.

Skin exposure studies were conducted on male and female rats according to OECD standard no. 453. No evidence of carcinogenicity was observed in male mice treated up to the high dose of 100 mg / kg / day and female rats exposed up to the high dose of 1000 mg / kg / day.

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XEPOXF fluid componente A

XYLENE (MIXTURE OF ISOMERS)

Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC).

The US Environmental Protection Agency (EPA) affirms that "the data is inadequate for an assessment of the carcinogenic potential".

ETHYLBENZENE

Classified in Group 2B (possible human carcinogen) by the International Agency for Research on Cancer (IARC) - (IARC, 2000).

Classified in Group D (not classifiable as a human carcinogen) by the US Environmental Protection Agency (EPA) - (US EPA file on-line 2014).

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

Adverse effects on sexual function and fertility

2,2' - [(1-methylethylidene) bis (4,1-phenyleneoxymethylene)] bisoxirane

Test type: Two-generation study

Species: Rat, male and female

Application method: Oral

Dose: > 750 Milligrams per kilo

General toxicity parents: Level within which no effects are observed: 540 mg / kg body weight

General toxicity F1: Level within which no effects are observed: 540 mg / kg body weight

Symptoms: No side effects.

Method: OECD Test Guideline 416

Result: There was no effect on fertility and early embryonic development.

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

Species: Rat, male and female

Method of application: Dermal

Duration of the single treatment: 13 Weeks

Treatment frequency: 5 days / week

General toxicity parents: No observed harmful level: 100 mg / kg body weight

Method: OECD Test Guideline 411.

Adverse effects on development of the offspring

2,2' - [(1-methylethylidene) bis (4,1-phenyleneoxymethylene)] bisoxirane

BADGE did not induce any evidence of developmental toxicity in rats and rabbits exposed by oral tube, or in rabbits treated by the dermal route, in GLP studies according to OECD standard No. 414. Oral tube studies were conducted up to a high dose level of 180 mg / kg / day which produced maternal toxicity based on decreased body weight gain. The rabbit skin toxicity study was conducted up to a high dose of 300 mg / kg / day which induced maternal toxicity based on decreased body weight gain.

Species: Rabbit, female

Method of application: Dermal

General toxicity in mothers: No harmful level observed: 30 mg / kg body weight

Method: Other reference guides

Result: No teratogenic effects.

Species: Rabbit, female

Application method: Oral

General toxicity in mothers: No observed harmful level: 60 mg / kg body weight

Method: OECD Test Guideline 414

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XEPOXF fluid componente A

Result: No teratogenic effects.
Species: Rat, female
Application method: Oral
General toxicity in mothers: No observed harmful level: 180 mg / kg body weight
Method: OECD Test Guideline 414
Result: No teratogenic effects.

Oxiran, mono[(C12-14-alkyloxy)methyl] derivs.
Species: Rat, female
Method of application: Dermal
Duration of the single treatment: 6 h
General toxicity in mothers: No observed harmful level: 200 mg / kg body weight
Developmental Toxicity: No observed harmful level: 200 mg / kg body weight
Method: OECD Test Guideline 414
Result: No teratogenic effects.

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

2,2'-[(1-methylethylidene) bis (4,1-phenyleneoxymethylene)] bisoxirane

Species: Rat, male and female
NOAEL: 50 mg / kg
Application method: Ingestion
Exposure time: 14 WeeksNumber of exposures: 7 d
Method: Subchronic toxicity
Species: Rat, male and female
NOEL: 10 mg / kg
Method of application: Skin contact
Exposure time: 13 WeeksNumber of exposures: 5 d
Method: Subchronic toxicity
Species: Mouse, male
NOAEL: 100 mg / kg
Method of application: Skin contact
Exposure time: 13 WeeksNumber of exposures: 3 d
Method: Subchronic toxicity
Repeated Dose Toxicity - Evaluation
:
No adverse effects were observed in chronic toxicity tests.

Oxiran, mono[(C12-14-alkyloxy)methyl] derivs.
Species: Rat, male and female
NOEL: 1 mg / kg
LOAEL: 10 mg / kg
Method of application: Skin contact
Exposure time: 13 Weeks Number of exposures: 5 days / week for 13 weeks
Method: OECD Test Guideline 411.

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XEPOXF fluid componente A

1,4-bis(2,3 epoxypropoxy)butane
Species: Rat, male and female
No observed harmfulness level: 200 mg / kg
Application method: Ingestion
Exposure time: 28 d Number of exposures: 7 d
Method: Subacute toxicity.

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class Viscosity: >20,5 mm²/sec (40°C)

2,2'-[(1-methylethylidene) bis (4,1-phenyleneoxymethylene)] bisoxirane
There is no classification for aspiration toxicity.

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 aquatic environment.

12.1. Toxicity

Oxiran, mono[(C12-14-alkyloxy)methyl] derivs.
NOEL (48 h) 1.8 mg / l
Daphnia magna
OECD TG 202
1,4-bis(2,3 epoxypropoxy)butane
Toxicity to daphnia and other aquatic invertebrates:
EC50 (Daphnia magna (Water flea)): 75 mg / l
Exposure time: 24 h
Test type: Static test
Test substance: Fresh water
Method: OECD Test Guideline 202
BPL: no
Toxicity to algae:
EL50:> 160 mg / l
Exposure time: 72 h
Test type: Static test
Test substance: Fresh water
Method: OECD Test Guideline 201
BPL: yes
Toxicity to bacteria:
CI50 (activated sludge):> 100 mg / l
Exposure time: 3 h
Test type: Static test
Test substance: Fresh water
Method: OECD Test Guideline 209
BPL: no.
c14-18 and c16-18 unsaturated, maleate fatty acids
LE50> 100 mg / l / 72h
Pseudokirchneriella subcapitata
OECD TG 201
EC50> 1000 mg / l
activated sludge
OECD TG 209

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XEPOXF fluid componente A

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

Chronic NOEC for Fish

100 mg/l 96 h Rainbow Trout

Chronic NOEC for Algae / Aquatic Plants

500 mg/l 72 h Selenastrum capricornutum

1,4-bis(2,3 epoxypoxy)butane

LC50 - for Fish

24 mg/l OECD TG 403

2,2' - [(1-methylethylidene) bis (4,1-
phenyleneoxymethylene)] bisoxirane
LC50 - for Fish

1,41 mg/l/96h Tipo di test: Prova statica

EC50 - for Crustacea

2,7 mg/l/48h Tempo di esposizione: 48 h

MALEIC ANHYDRIDE

LC50 - for Fish

75 mg/l/96h Oncorhynchus mykiss

EC50 - for Crustacea

42,81 mg/l/48h Daphnia magna OECD 202

EC50 - for Algae / Aquatic Plants

74,35 mg/l/72h Pseudokirchneriella subatitata OECD 201

Chronic NOEC for Crustacea

10 mg/l 21 d Daphnia magna

c14-18 and c16-18 unsaturated, maleate
fatty acids

EC50 - for Crustacea

> 100 mg/l/48h Daphnia magna OECD TG 202

12.2. Persistence and degradability

2,2' - [(1-methylethylidene) bis (4,1-phenyleneoxymethylene)] bisoxirane

The level of biodegradation in an "improved" OECD 301F study was 5% within the 28-day contact period. Biodegradation reached 6 - 12% after 28 days of contact in a study conducted according to OECD standard No. 301B. Therefore BADGE is not readily biodegradable under the conditions of the studies.

Stability in water:

Half-life to degradation (TD50): 4.83 d (25 ° C)

pH: 4

Method: OECD TG 111

Observations: Fresh water

Half-life to degradation (TD50): 7.1 d (25 ° C)

pH: 9

Method: OECD TG 111

Observations: Fresh water

Half-life to degradation (TD50): 3.58 d (25 ° C)

pH: 7

Method: OECD TG 111

Observations: Fresh water.

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

Test type: aerobic

Inoculum: activated sludge

Concentration: 100 mg / l

Result: Readily biodegradable.

Biodegradation: 87%

Exposure time: 28 d

Method: OECD Test Guideline 301F.

1,4-bis(2,3 epoxypoxy)butane

Result: Not readily biodegradable.

Biodegradation: 38%

Exposure time: 28 d

Method: OECD Test Guideline 301E.

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

NOT rapidly degradable

XYLENE (MIXTURE OF ISOMERS)

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XEPOXF fluid componente A

Solubility in water	100 - 1000 mg/l
Rapidly degradable ETHYLBENZENE	
Solubility in water	1000 - 10000 mg/l
Rapidly degradable MALEIC ANHYDRIDE	
Solubility in water	> 10000 mg/l
Rapidly degradable c14-18 and c16-18 unsaturated, maleate fatty acids NOT rapidly degradable	

12.3. Bioaccumulative potential

2,2'-[(1-methylethylidene) bis (4,1-phenyleneoxymethylene)] bisoxirane

LogPow 2.64 - 3.78

BCF 3 - 31 31.00

Low potential.

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

log Pow: 3.77 (20 ° C)

Method: OECD Test Guideline 107.

1,4-bis(2,3 epoxypropoxy)butane

Inoculum: activated sludge

Concentration: 20 mg / l

Result: Not readily biodegradable.

Biodegradation: 43%

Exposure time: 28 d

Method: OECD Test Guideline 301F.

2,2'-[(1-methylethylidene) bis (4,1-phenyleneoxymethylene)] bisoxirane

Partition coefficient: n-octanol/water

2,281

BCF

< 6,8 10 ug/l

XYLENE (MIXTURE OF ISOMERS)

Partition coefficient: n-octanol/water

3,12

BCF

25,9

ETHYLBENZENE

Partition coefficient: n-octanol/water

3,6

MALEIC ANHYDRIDE

Partition coefficient: n-octanol/water

-2,61 @19,8 °C OECD 107

12.4. Mobility in soil

2,2'-[(1-methylethylidene) bis (4,1-phenyleneoxymethylene)] bisoxirane

Diffusion in the various environmental sectors: Koc: 445.

1,4-bis(2,3 epoxypropoxy)butane

Koc: 12.59 Method: OECD Test Guidelines 121.

XYLENE (MIXTURE OF ISOMERS)

Partition coefficient: soil/water

2,73

12.5. Results of PBT and vPvB assessment

2,2'-[(1-methylethylidene) bis (4,1-phenyleneoxymethylene)] bisoxirane

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XEPOXF fluid componente A

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.

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

12.6. Endocrine disrupting properties

2,2' - [(1-methylethylidene) bis (4,1-phenyleneoxymethylene)] bisoxirane

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.

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

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic organisms.

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: 3082

ADR / RID: In accordance with Special Provision 375, this product, when is packed in receptacles of a capacity $\leq$ 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 $\leq$ 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 $\leq$ 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. (2,2' - [(1-methylethylidene) bis (4,1-phenyleneoxymethylene)] bisoxirane)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,2' - [(1-methylethylidene) bis (4,1-phenyleneoxymethylene)] bisoxirane)

IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,2' - [(1-methylethylidene) bis (4,1-phenyleneoxymethylene)] bisoxirane)

14.3. Transport hazard class(es)

ADR / RID: Class: 9 Label: 9



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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: -

IMDG: EMS: F-A, S-F

Limited Quantities: 5 L

IATA: Cargo:

Maximum quantity: 450 L

Packaging instructions: 964

Pass.:

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

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Point 75

Point 52 DI-'ISONONYL' PHTHALATE,
MIXTURE OF ESTERS REACH
Reg.: 01-2119430798-28-xxxx

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 $\geq$ than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

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

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane

Oxirane, mono [(C12-14-alkyloxy) methyl] derivatives

SECTION 16. Other information

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

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1

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Asp. Tox. 1	Aspiration hazard, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Resp. Sens. 1	Respiratory sensitization, category 1
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
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H372	Causes damage to organs through prolonged or repeated exposure.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH071	Corrosive to the respiratory tract.
EUH205	Contains epoxy constituents. May produce an allergic reaction.

Use descriptor system:

ERC	7	Use of functional fluid at industrial site
ERC	8a	Widespread use of non- reactive processing aid (no inclusion into or onto article, indoor)
ERC	8b	Widespread use of reactive processing aid (no inclusion into or onto article, indoor)
ERC	8c	Widespread use leading to inclusion into/onto article (indoor)
ERC	8d	Widespread use of non- reactive processing aid (no inclusion into or onto article, outdoor)
ERC	8f	Widespread use leading to inclusion into/onto article (outdoor)
PC	1	Adhesives, sealants
PROC	10	Roller application or brushing
PROC	5	Mixing or blending in batch processes

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

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- 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
- 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)
22. Delegated Regulation (UE) 2022/692 (XVIII 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.

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XEPOXF fluid componente A

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 / 04 / 07 / 08 / 09 / 10 / 11 / 12 / 14 / 15 / 16 / Exposure Scenarios.

Exposure Scenarios

Substance	2,2'-[(1-methylethylidene) bis (4,1-phenyleneoxymethylene)] bisoxirane
Scenario Title	Resina epossidica da bisfenolo A
Revision nr.	1
File	1

Substance	Oxiran, mono[(C12-14-alkyloxy)methyl] derivs.
Scenario Title	AGE C12-14
Revision nr.	1
File	2

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XEPOXF fluid componente B

Safety Data Sheet

According to Annex II to REACH - Regulation 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

Product name

XEPOXF400 Fluid componente B
XEPOXF3000 Fluid componente B
XEPOXF5000 Fluid componente B
XEPOX Fluid componente B

UFI :

3N50-R07Q-200U-QU25

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

Intended use

Component B for the preparation of two-component epoxy adhesive for professional uses in the building sector. Recommended for gluing of timber, metal, CLS or FRP structural elements.

Identified Uses

TWO-COMPONENT EPOXY ADHESIVE

Industrial

ERC: 8a, 8b, 8c, 8d, 8f.
 PROC: 10, 5.
 PC: 1.

Professional

ERC: 7, 8a, 8b, 8c, 8d, 8f.
 PROC: 10, 5.
 PC: 1.

Consumer

-

1.3. Details of the supplier of the safety data sheet

Name

Full address

District and Country

Rotho Blaas Srl
via dell'Adige 2/1 -
39040 Cortaccia (BZ)
ITALY

Tel. +39 0471 81 84 00

e-mail address of the competent person
 responsible for the Safety Data Sheet

reach@rothoblaas.com

1.4. Emergency telephone number

For urgent inquiries refer to

UK NPIS 0344 892 0111
Ireland NPIC (01) 809 2566

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XEPOXF fluid componente B

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:

Reproductive toxicity, category 1B	H360Fd	May damage fertility. Suspected of damaging the unborn child.
Acute toxicity, category 4	H302	Harmful if swallowed.
Specific target organ toxicity - repeated exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Skin sensitization, category 1A	H317	May cause an allergic skin reaction.

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:

H360Fd	May damage fertility. Suspected of damaging the unborn child.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
	Restricted to professional users.

Precautionary statements:

P260	Do not breathe dust / fume / gas / mist / vapours / spray.
P201	Obtain special instructions before use.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

Contains:	SALICYLIC ACID
	AEP
	3-aminomethyl-3,5,5-trimethylcyclohexylamine
	4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine
	Fatty acids, C18-unsatd., Dimers, reaction products with N, N-dimethyl-1,3-propanediamine and 1,3-propanediamine
	Amines, polyethylenepoly-, tetraethylenepentamine fraction

2.3. Other hazards

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

The product contains substances with endocrine disrupting properties in concentration $\geq$ 0,1%: SALICYLIC ACID

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XEPOXF fluid componente B

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
3-aminomethyl-3,5,5-trimethylcyclohexylamine INDEX 612-067-00-9 EC 220-666-8 CAS 2855-13-2 REACH Reg. 01-2119514687-32-xxxx	15 ≤ x < 30	Acute Tox. 4 H302, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1 H317 LD50 Oral: 1030 mg/kg
Phenyl methanol INDEX 603-057-00-5 EC 202-859-9 CAS 100-51-6 REACH Reg. 1-2119492630-38-0000	15 ≤ x < 30	Acute Tox. 4 H302, Acute Tox. 4 H332, Eye Irrit. 2 H319 LD50 Oral: 1620 mg/kg, LC50 Inhalation mists/powders: >4,178 mg/l/4h
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine INDEX - EC 500-101-4 CAS 38294-64-3 REACH Reg. 01-2119965165-33-0012	5 ≤ x < 15	Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 3 H412
AEP INDEX 612-105-00-4 EC 205-411-0 CAS 140-31-8 REACH Reg. 01-2119471486-30-xxxx	1 ≤ x < 3	Repr. 2 H361, Acute Tox. 3 H311, Acute Tox. 4 H302, STOT RE 1 H372, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 3 H412 STA Oral: 500 mg/kg, LD50 Dermal: 866 mg/kg
Amines, polyethylenepoly-, tetraethylenepentamine fraction INDEX - EC 292-588-2 CAS 90640-67-8 REACH Reg. 01-2119487919-13-xxxx	0 ≤ x < 1	Acute Tox. 4 H302, Acute Tox. 4 H312, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 3 H412 LD50 Oral: 1716,2 mg/kg, LD50 Dermal: 1465,4 mg/kg
SALICYLIC ACID INDEX - EC 200-712-3 CAS 69-72-7 REACH Reg. 01-2119486984-17-xxxx	0,3 ≤ x < 1	Repr. 1B H360Fd, Repr. 2 H361d, Acute Tox. 4 H302, Eye Dam. 1 H318 LD50 Oral: 891 mg/kg
Fatty acids, C18-unsatd., Dimers, reaction products with N, N-dimethyl-1,3-propanediamine and 1,3-propanediamine INDEX - EC 605-296-0 CAS 162627-17-0 REACH Reg. 01-2119970640-38-xxxx	0,1 ≤ x < 1	Skin Sens. 1A H317
1-METHOXY-2-PROPANOL INDEX 603-064-00-3 EC 203-539-1 CAS 107-98-2 REACH Reg. 01-2119457435-35-xxxx	0 ≤ x < 1	Flam. Liq. 3 H226, STOT SE 3 H336

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

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XEPOXF fluid componente B

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

Information not available

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.

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

If possible contain the spilled material. Absorb with materials such as: Sand. Collect in suitable and correctly labeled containers.

Provide sufficient ventilation of the place affected by the leak. The disposal of contaminated material must be carried out in accordance with the provisions of point 13.

6.4. Reference to other sections

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

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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)

See the exposure scenarios attached to this safety datasheet.

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
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
ROU	România	Hotărârea nr. 53/2021 pentru modificarea hotărârii guvernului nr. 1.218/2006, precum și pentru modificarea și completarea hotărârii guvernului nr. 1.093/2006
SWE	Sverige	Hygieniska gränsvärden, Arbetsmiljöverkets föreskrifter och allmänna råd om hygieniska gränsvärden (AFS 2018:1)
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)
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2021

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,06	mg/l
Normal value in marine water	0,006	mg/l
Normal value for fresh water sediment	5,784	mg/kg
Normal value for marine water sediment	0,578	mg/kg
Normal value for water, intermittent release	0,23	mg/l
Normal value of STP microorganisms	3,18	mg/l
Normal value for the terrestrial compartment	1,121	mg/kg
Normal value for the atmosphere	NPI	

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Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		0,3 mg/kg bw/d		0,3 mg/kg bw/d				
Inhalation	NPI	NPI	NPI	NPI	0,073 mg/m3		0,073 mg/m3	
Skin	NPI	NPI	NPI	NPI	HIGH	NPI	HIGH	NPI

BENZYL ALCOHOL

Threshold Limit Value

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	
TLV	BGR	5		
TLV	CZE	40	8,88	
AGW	DEU	22	5	SKIN
NDS/NDSch	POL	240		11
MV	SVN	22	5	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 ww
Normal value for marine water sediment	0,527	mg/kg ww
Normal value for water, intermittent release	2,3	mg/l
Normal value of STP microorganisms	39	mg/l
Normal value for the terrestrial compartment	0,456	mg/kg ww

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	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/m ³	VND	5,4 mg/m ³	VND	110 mg/m ³	VND	22 mg/m ³
Skin	VND	20 mg/kg bw/d	VND	4 mg/kg bw/d	VND	40 mg/kg bw/d		8 mg/kg bw/d

Calcium carbonate

Threshold Limit Value

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	
AGW	DEU	10		INHAL
WEL	GBR	4		RESP

CALCIUM CARBONATE

Threshold Limit Value

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	
VLEP	FRA	10		
NDS/NDSch	POL	10		INHAL

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation			1,06 mg/m3	10 mg/m3			4,26 mg/m3	10 mg/m3

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XEPOXF fluid componente B

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine

Predicted no-effect concentration - PNEC		
Normal value in fresh water	11,1	µg/L
Normal value in marine water	1,11	µg/L
Normal value for fresh water sediment	4320	mg/kg
Normal value for marine water sediment	432	mg/kg/d
Normal value for water, intermittent release	111	µg/L
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	1	mg/kg
Normal value for the terrestrial compartment	864	mg/kg/d
Normal value for the atmosphere	NPI	

Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	HIGH	NPI	HIGH	0.05 mg/kg bw/d				
Inhalation	HIGH	NPI	HIGH	0.074 mg/m3	HIGH	NPI	HIGH	0.493 mg/m3
Skin	HIGH	NPI	HIGH	0,05 mg/kg bw/d	HIGH	NPI	HIGH	0,14 mg/kg bw/d

AEP

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,058	mg/l
Normal value in marine water	0,0058	mg/l
Normal value for fresh water sediment	215	mg/kg
Normal value for marine water sediment	21,5	mg/kg
Normal value for water, intermittent release	0,58	mg/l
Normal value of STP microorganisms	250	mg/l
Normal value for the terrestrial compartment	1	mg/kg

Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation					80 mg/m3	10,6 mg/m3	0,015 mg/m3	10,6 mg/m3
Skin								3,33 mg/kg bw/d

Amines, polyethylenepoly-, tetraethylenepentamine fraction

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,19	mg/l
Normal value in marine water	0,038	mg/l
Normal value for fresh water sediment	95,9	mg/kg
Normal value for marine water sediment	19,2	mg/kg
Normal value for water, intermittent release	0,2	mg/l
Normal value of STP microorganisms	4,25	mg/l
Normal value for the food chain (secondary poisoning)	0,18	mg/kg

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Normal value for the terrestrial compartment 19,1 mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	VND	20 mg/kg bw/d	VND	0,41 mg/kg bw/d				
Inhalation	VND	1600 mg/m3	VND	0,29 mg/m3	VND	5380 mg/m3	VND	1 mg/m3
Skin	1 mg/cm2	8 mg/kg bw/d	VND	0,43 mg/cm2			0,028 mg/cm2	0,57 mg/kg bw/d

SALICYLIC ACID

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,2	mg/l
Normal value in marine water	0,02	mg/l
Normal value for fresh water sediment	1,42	mg/kg
Normal value for marine water sediment	0,142	mg/kg
Normal value of STP microorganisms	162	mg/l
Normal value for the terrestrial compartment	0,166	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		4 mg/kg bw/d		1 mg/kg bw/d				
Inhalation				4 mg/m3			5 mg/m3	12 mg/m3
Skin				1 mg/kg bw/d				2 mg/kg bw/d

Fatty acids, C18-unsatd., Dimers, reaction products with N, N-dimethyl-1,3-propanediamine and 1,3-propanediamine

Predicted no-effect concentration - PNEC

Normal value in fresh water	NPI
Normal value in marine water	NEA
Normal value for fresh water sediment	NPI
Normal value for water, intermittent release	NPI
Normal value of STP microorganisms	NPI
Normal value for the food chain (secondary poisoning)	NPI
Normal value for the terrestrial compartment	5,8 mg/kg soil dw
Normal value for the atmosphere	NPI

1-METHOXY-2-PROPANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	375	100	568	150	SKIN
TLV	CZE	270	72,09	550	146,85	SKIN
AGW	DEU	370	100	740	200	
MAK	DEU	370	100	740	200	
VLA	ESP	375	100	568	150	SKIN
VLEP	FRA	188	50	375	100	SKIN
VLEP	ITA	375	100	568	150	SKIN cute

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XEPOXF fluid componente B

TLV	NOR	180	50			SKIN
VLE	PRT	375	100	568	150	
NDS/NDSch	POL	180		360		SKIN
TLV	ROU	375	100	568	150	SKIN
NGV/KGV	SWE	190	50	568	150	SKIN
MV	SVN	375	100	568	150	SKIN
WEL	GBR	375	100	560	150	SKIN
OEL	EU	375	100	568	150	SKIN
TLV-ACGIH		184	50	368	100	

Predicted no-effect concentration - PNEC						
Normal value in fresh water				10	mg/l	
Normal value in marine water				1	mg/l	
Normal value for fresh water sediment				52,3	mg/kg/dw	
Normal value for marine water sediment				5,2	mg/kg/dw	
Normal value for water, intermittent release				100	mg/l	
Normal value of STP microorganisms				100	mg/l	
Normal value for the terrestrial compartment				4,59	mg/kg/dw	

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			33 mg/kg					
Inhalation			10	43,9 mg/m3	553,5 mg/m3		20	369 mg/m3
Skin				78 mg/kg bw/d				183 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.

When choosing risk management measures and operating conditions, consult the exposure scenarios attached.

Provide an emergency shower with face and eye wash station.

Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

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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).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

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.

For information on controlling environmental exposure, see the exposure scenarios attached to this safety datasheet.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	yellow	
Odour	characteristic	
Melting point / freezing point	not available	
Initial boiling point	> 80 °C	
Flammability	not available	
Lower explosive limit	not available	
Upper explosive limit	not available	
Flash point	> 80 °C	
Auto-ignition temperature	not available	
Decomposition temperature	not available	
pH	11	Concentration: 100 % Temperature: 25 °C
Kinematic viscosity	>20,5 mm ² /sec (40°C)	
Dynamic viscosity	11500 mPa.s	Temperature: 25 °C
Solubility	not available	
Partition coefficient: n-octanol/water	not available	
Vapour pressure	not available	
Density and/or relative density	1,45 g/cm ³	Temperature: 25 °C
Relative vapour density	not available	
Particle characteristics	not applicable	

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XEPOXF fluid componente B

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) 17,21 % - 249,48 g/litre

SECTION 10. Stability and reactivity

SALICYLIC ACID

Decomposes under the action of heat, dangerous decomposition products:

Carbon oxides, Phenol

Dust flammability rate at more than 30 g / m³

At high free temperature: Flammable vapors cause fire or explosion hazards.

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.

AEP

Avoid contact with: acids,isocyanates,aluminium alloys.

Polymerises developing heat on contact with: epoxy compounds.

May attack: aluminium.

Reacts violently developing heat on contact with: acids,isocyanates.

Stable in normal conditions of use and storage.

Amines, polyethylenepoly-, tetraethylenepentamine fraction

Polymerises developing heat on contact with: epoxy compounds.

1-METHOXY-2-PROPANOL

Dissolves various plastic materials.Stable in normal conditions of use and storage.

Absorbs and dissolves in water and in organic solvents. With air it may slowly form explosive peroxides.

10.2. Chemical stability

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

AEP

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.

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

May react dangerously with: strong oxidising agents,concentrated inorganic acids.

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XEPOXF fluid componente B

BENZYL ALCOHOL

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

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine

Reacts with: epoxy compounds,isocyanates.

AEP

Polymerises developing heat on contact with: epoxy compounds.

May react violently with: acids,isocyanates.

1-METHOXY-2-PROPANOL

May react dangerously with: strong oxidising agents,strong acids.

10.4. Conditions to avoid

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

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Avoid contact with: strong acids,strong oxidants.

BENZYL ALCOHOL

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

AEP

Avoid contact with: acids.

Amines, polyethylenepoly-, tetraethylenepentamine fraction

Avoid exposure to: high temperatures.

1-METHOXY-2-PROPANOL

Avoid exposure to: air.

10.5. Incompatible materials

BENZYL ALCOHOL

Incompatible with: sulphuric acid,oxidising substances,aluminium.

AEP

Incompatible materials: aluminium.

Amines, polyethylenepoly-, tetraethylenepentamine fraction

Avoid contact with: acids,oxidising agents,nitrites.

Attacks: metals.

1-METHOXY-2-PROPANOL

Incompatible with: oxidising substances,strong acids,alkaline metals.

10.6. Hazardous decomposition products

Information not available

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XEPOXF fluid componente B

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

1-METHOXY-2-PROPANOL

WORKERS: inhalation; contact with the skin.

POPULATION: ingestion of contaminated food or water; inhalation of ambient air; contact with the skin of products containing the substance.

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

BENZYL ALCOHOL

Repeated dose subacute oral toxicity

Parameter: NOAEL (C) (BENZYL ALCOHOL; CAS No.: 100-51-6)

Route of exposure: Oral route

Species: Rat

Effective dose: 400 mg / kg bw / day

Repeated dose subacute inhalation toxicity

Parameter: NOAEL (C) (BENZYL ALCOHOL; CAS No.: 100-51-6)

Route of exposure: Inhalation

Species: Rat

Effective dose: 1072 mg / m3

Method: OECD 412.

1-METHOXY-2-PROPANOL

The main route of entry is the skin, whereas the respiratory route is less important due to the low vapour pressure of the product. Above 100 ppm causes irritation of the eye, nose and oropharynx mucous membranes. At 1000 ppm, disturbance of equilibrium and severe eye irritation can be noticed. Clinical and biological examinations carried out on exposed volunteers revealed no anomalies. Acetate produces greater skin and eye irritation with direct contact. No chronic effects on humans have been reported.

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation - mists / powders) of the mixture:	> 5 mg/l
ATE (Oral) of the mixture:	1864,12 mg/kg
ATE (Dermal) of the mixture:	>2000 mg/kg

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

LD50 (Dermal):	> 2000 mg/kg rat OECD 402
LD50 (Oral):	1030 mg/kg simile a Linea Guida OECD 401
LC50 (Inhalation mists/powders):	> 5,01 mg/l/4h rat OECD 403

BENZYL ALCOHOL

LD50 (Dermal):	2000 mg/kg dw Rabbit
LD50 (Oral):	1620 mg/kg Rat
LC50 (Inhalation mists/powders):	> 4,178 mg/l/4h rat OECD 403

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine

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LD50 (Dermal): 2000 mg/kg rat
LD50 (Oral): 300 mg/kg rat

AEP

LD50 (Dermal): 866 mg/kg rabbit
LD50 (Oral): 2097 mg/kg rat
STA (Oral): 500 mg/kg estimate from table 3.1.2 of Annex I of the CLP
(figure used for calculation of the acute toxicity estimate of the mixture)

Amines, polyethylenepoly-, tetraethylenepentamine fraction

LD50 (Dermal): 1465,4 mg/kg Rabbit
LD50 (Oral): 1716,2 mg/kg Rat

SALICYLIC ACID

LD50 (Dermal): > 2000 mg/kg rat
LD50 (Oral): 891 mg/kg rat
LC50 (Inhalation mists/powders): > 0,9 mg/l/1h rat

Fatty acids, C18-unsatd., Dimers, reaction products with N, N-dimethyl-1,3-propanediamine and 1,3-propanediamine

LD50 (Oral): > 10000 mg/kg ratto EOCD 401

1-METHOXY-2-PROPANOL

LD50 (Dermal): 13000 mg/kg Rabbit
LD50 (Oral): 5300 mg/kg Rat
LC50 (Inhalation vapours): 54,6 mg/l/4h Rat

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Acute toxicity assessment:

Moderate toxicity after short skin contact. Moderate toxicity after single ingestion.

The European Union has classified the substance as 'harmful'.

Amines, polyethylenepoly-, tetraethylenepentamine fraction

Inhalation: May give off gases, vapors or dust which are very irritating to the respiratory system. Exposure to decomposition products can be dangerous to health. Serious delayed effects may occur following exposure.

Ingestion: Harmful if swallowed. It can cause heartburn in the mouth, throat and stomach.

Skin contact: Causes severe burns. Harmful in contact with skin. May cause an allergic skin reaction.

Eye contact: Causes serious eye damage.

SKIN CORROSION / IRRITATION

Corrosive for the skin

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Evaluation of the irritating effect:

Corrosive! Damages skin and eyes.

Experimental / calculated data:

Skin corrosion / irritation rabbit: Corrosive.

Serious eye damage / eye irritation rabbit: irreversible damage (OECD 405 guideline).

BENZYL ALCOHOL

Primary skin irritation

Dermal irritation (OECD 404): slightly irritating (Determined on rabbit skin)

Eye irritation

Eye irritation (OECD 405): irritant (Determined on rabbit eyes).

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XEPOXF fluid componente B

AEP

Species: Rabbit

Assessment: Causes burns.

Result: Corrosive after 3 minutes to 1 hour of exposure.

Amines, polyethylenepoly-, tetraethylenepentamine fraction
OECD 405 Acute Eye Irritation / Corrosion Rabbit Skin Corrosive
OECD 404 Acute Dermal Irritation / Corrosion Rabbit Eyes Corrosive.

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

AEP

Species: Rabbit

Assessment: Severe eye irritation

Result: Irreversible effects on the eyes.

SALICYLIC ACID

Causes serious eye damage.

pH: 2.4 (2% (m / v)) (Aqueous solution)

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

AEP

Route of exposure: Skin

Species: Guinea pig

Method: OECD Test Guideline 406

Result: Causes sensitization.

Skin sensitization

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Evaluation of the sensitizing effect:

Sensitization possible after repeated contact.

Experimental / calculated data:

Guinea Pig Maximization Test guinea pig: skin sensitization (OECD - guideline 406).

BENZYL ALCOHOL

Sensitization: (Guinea Pig): negative.

Amines, polyethylenepoly-, tetraethylenepentamine fraction

OECD 406 Skin Sensitization Guinea pig Skin Sensitizing.

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Mutagenicity Assessment:

No mutagenic effects were found in various experiments on bacteria and mammals. The substance was not mutagenic in mammalian experiments.

AEP

Genotoxicity in vitro:

Metabolic activation: with or without metabolic activation

Method: OECD Test Guideline 471

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XEPOXF fluid componente B

Result: negative:

Metabolic activation: with or without metabolic activation

Method: OECD Test Guideline 476

Result: negative:

Metabolic activation: negative

Method: OECD Test Guideline 482

Result: negative.

Amines, polyethylenepoly-, tetraethylenepentamine fraction

OECD 471 Bacterial Reverse Mutation Test Positive

OECD 482 Genetic Toxicology: DNA Damage and Repair, Unscheduled DNA Synthesis in Mammalian Cells in vitro Negative

OECD 474 Mammalian Erythrocyte Micronucleus Negative Test.

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Carcinogenicity Assessment:

Scientifically not justified study.

Amines, polyethylenepoly-, tetraethylenepentamine fraction

OECD 451 Carcinogenicity Studies Mouse 3 days per week Negative Cutaneous.

REPRODUCTIVE TOXICITY

May damage fertility - Suspected of damaging the unborn child

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Carcinogenicity Assessment:

Scientifically not justified study.

Amines, polyethylenepoly-, tetraethylenepentamine fraction

According to column 2 of Annex VII - X of Regulation (EC) 1907/2006, it is not necessary to test this property of the substance.

SALICYLIC ACID

Not classified (Based on available data, the classification criteria are not met)

NOAEL, P, rat: 225 mg / kg body weight / day

NOAEL, F1, rat: 67.5 mg / kg body weight / day

NOAEL, F2, rat: 67.5 mg / kg body weight / day

(results obtained on a similar product)

Developmental Toxicity:

NOAEL, Teratogenic effect, Oral, rat: 50 mg / kg

NOAEL, Maternal toxicity, Oral, rat: 50 mg / kg

Adverse effects on sexual function and fertility

AEP

Some evidence of adverse effects on sexual function and fertility, and / or development, based on animal experiments.

Adverse effects on development of the offspring

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Animal tests did not show fetal damage.

Amines, polyethylenepoly-, tetraethylenepentamine fraction

OECD 414 Prenatal Developmental Toxicity Study Rat 0 to 750 mg / kg NOAEL

OECD 414 Prenatal Developmental Toxicity Study Rabbit 0 to 125 mg / kg NOAEL.

STOT - SINGLE EXPOSURE

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XEPOXF fluid componente B

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

May cause damage to organs

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

The substance can damage the liver following repeated ingestion of large quantities, as shown by experiments on animals.

AEP

2-piperazin-1-ylethylamine:

Route of exposure: Inhalation

Target organs: Respiratory tract

Assessment: Causes damage to organs through prolonged or repeated exposure.

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class Viscosity: >20,5 mm²/sec (40°C)

11.2. Information on other hazards

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 humans and cause adverse effects on the exposed individual or his or her progeny: SALICYLIC ACID

SECTION 12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

SALICYLIC ACID

Easily biodegradable product

Non bioaccumulative. Ultimate destination of the product: water.

Ecotoxicity:

EC 50 - Daphnia (Daphnia Magna) / 24 hours: 180 mg / l

EC 50 - Algae (Monoraphidium minutum) / 120 h: 60mg / l.

12.1. Toxicity

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Harmful (acute harmful) to aquatic organisms. The correct introduction of low concentrations into the biological purification plant should not compromise the degradation activity of the activated sludge.

Ichthyotoxicity:

EC50 (48 h) 388 mg / l, Chaetogammarus marinus (semi-static)

The indications of the toxic action refer to the nominal concentration.

Aquatic plants:

EC10 (72 h) 11.2 mg / l (growth rate), Scenedesmus subspicatus (Directive 88/302 / EEC, part C, p 89)

Nominal concentration.

Microorganisms / Effects on activated sludge:

EC10 (18 h) 1,120 mg / l, Pseudomonas putida (DIN 38412 part 8)

Nominal concentration.

Chronic toxicity to fish:

Scientifically not justified study.

Chronic toxicity to aquatic invertebrates:

NOEC (21 d) 3 mg / l, Daphnia magna (OECD - guideline 202, part 2, semi-static)

Nominal value (confirmed by concentration controls).

Terrestrial toxicity assessment:

Scientifically not justified study.

BENZYL ALCOHOL

Acute (short-term) toxicity to fish

Parameter: LC50

Species: Pimephales promelas

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Effective dose: = 770 mg / l

Exposure time: 1 h

Parameter: LC50

Species: Pimephales promelas

Effective dose: 460 mg / l

Exposure time: 96 h

Acute (short-term) toxicity to daphnia

Parameter: EC50

Species: Daphnia magna

Effective dose: = 230 mg / l

Exposure time: 48 h.

Method: OECD 202

Parameter: EC50

Species: Daphnia magna

Effective dose: 66 mg / l

Exposure time: 21 days

Method: OECD 211

Chronic (long-term) toxicity to daphnia

Parameter: NOEC

Species: Daphnia magna (large water flea)

Effective dose: 51 mg / l

Exposure time: 21 days

Method: OECD 211

Acute (short-term) toxicity to algae

Parameter: EC50

Species: Pseudokirchneriella subcapitata

Effective dose: = 770 mg / l

Exposure time: 72 h

Method: OECD 201.

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine

Acute toxicity to fish

LL50, Rainbow trout (Oncorhynchus mykiss), static test, 96 h, 70.7 mg / l, OECD Test Guideline 203

Acute toxicity to aquatic invertebrates

EL50, water flea Daphnia magna, static test, 48 h, 11.1 mg / l, OECD TG 202

Acute toxicity to algae / aquatic plants

EL50, Pseudokirchneriella subcapitata (green algae), static test, 72 h, Growth inhibition (cell density reduction), 79.4 mg / l, OECD Test Guideline 201

Toxicity to bacteria

EC50, activated sludge, aerobic, 3 h, Respiratory rates., > 1 000 mg / l, activated sludge (Test OECD No. 209)

Amines, polyethylenepoly-,
tetraethylenepentamine fraction

LC50 - for Fish

330 mg/l/96h EPA OPPTS EPA OTS 797 1400

EC50 - for Crustacea

31,1 mg/l/48h EU EC C.2 Daphnia sp.

EC50 - for Algae / Aquatic Plants

2,5 mg/l/72h OECD 201

AEP

LC50 - for Fish

368 mg/l/96h

EC50 - for Crustacea

45 mg/l/48h

EC50 - for Algae / Aquatic Plants

494 mg/l/72h

BENZYL ALCOHOL

LC50 - for Fish

> 100 mg/l/96h OECD SIDS

EC50 - for Crustacea

> 100 mg/l/48h Daphnia magna OECD SIDS

EC50 - for Algae / Aquatic Plants

770 mg/l/72h Pseudokirchneriella subcapitata

3-AMINOMETHYL 3,5,5-

TRIMETHYLCYCLOHEXYLAMINE

LC50 - for Fish

110 mg/l/96h Leuciscus idus

EC50 - for Algae / Aquatic Plants

> 50 mg/l/72h Scenedesmus subspicatus similar to OECD 201

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SALICYLIC ACID

LC50 - for Fish	1380 mg/l/96h Pimephales promelas
EC50 - for Crustacea	870 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	> 100 mg/l/72h desmodesmus subspicatus
Chronic NOEC for Crustacea	10 mg/l 21 d Daphnia magna

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine
EC50 - for Algae / Aquatic Plants
Chronic NOEC for Algae / Aquatic Plants

79,4 mg/l/72h
3,1 mg/l

Fatty acids, C18-unsatd., Dimers, reaction products with N, N-dimethyl-1,3-propanediamine and 1,3-propanediamine
EC10 for Algae / Aquatic Plants

100 mg/l/72h

12.2. Persistence and degradability

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Assessment of biodegradability and elimination (H₂O):

Hardly biodegradable (according to OECD criteria).

Disposal considerations:

8% DOC reduction (28 d) (Directive 92/69 / EEC, C.4-A) (aerobic, mainly domestic waste)

Assessment of stability in water:

In contact with water, the substance hydrolyzes slowly.

Stability data in water (hydrolysis):

<10% (5 d) (50 ° C, pH value 7), (OECD guideline 111, p H 7).

BENZYL ALCOHOL

Parameter: Biodegradation (BENZYL ALCOHOL; CAS No.: 100-51-6)

Effective dose: 92 - 96%

Exposure time: 14 days

Method: OECD 301C / ISO 9408 / EEC 92/69 / V, C.4-F

Parameter: DOC reduction (BENZYL ALCOHOL; CAS No.: 100-51-6)

Effective dose: 95 - 97%

Exposure time: 21 days

Method: OECD 301A / ISO 7827 / EEC 92/69 / V, C.4-A

Easily biodegradable.

AEP

Inoculum: activated sludge

Result: Not readily biodegradable.

Biodegradation: 0%

Exposure time: 28 d

Method: OECD Test Guideline 301F.

Amines, polyethylenepoly-, tetraethylenepentamine fraction
NOT rapidly degradable

AEP

NOT rapidly degradable

BENZYL ALCOHOL

Rapidly degradable

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE
Solubility in water

1000 - 10000 mg/l

NOT rapidly degradable

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XEPOXF fluid componente B

SALICYLIC ACID

Rapidly degradable

1-METHOXY-2-PROPANOL

Solubility in water

1000 - 10000 mg/l

Rapidly degradable

4,4'-Isopropylidenediphenol, oligomeric
reaction products with 1-chloro-2,3-
epoxypropane, reaction products with 3-
aminomethyl-3,5,5-trimethylcyclohexylamine

Solubility in water

22,18 g/l pH 7-11

NOT rapidly degradable

12.3. Bioaccumulative potential

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Assessment of bioaccumulation potential:

Given the n-octanol / water partition coefficient (log Pow) a significant accumulation in organisms is not expected.

Bioaccumulation potential:

Based on the n-octanol / water partition coefficient (log Pow) accumulation in organisms is not to be expected. Indication from bibliography.

BENZYL ALCOHOL

Little bioaccumulative.

AEP

Species: Fish

Remarks: Does not bioaccumulate.

Amines, polyethylenepoly-,
tetraethylenepentamine fraction

BCF

99

AEP

Partition coefficient: n-octanol/water

-1,48

3-AMINOMETHYL 3,5,5-
TRIMETHYLCYCLOHEXYLAMINE

Partition coefficient: n-octanol/water

0,99 @ 23 °C and pH 6.34

1-METHOXY-2-PROPANOL

Partition coefficient: n-octanol/water

< 1

4,4'-Isopropylidenediphenol, oligomeric
reaction products with 1-chloro-2,3-
epoxypropane, reaction products with 3-
aminomethyl-3,5,5-trimethylcyclohexylamine

Partition coefficient: n-octanol/water

3,6 Log Kow @ 25°C

12.4. Mobility in soil

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Transport evaluation between environmental departments:

Volatility: The substance does not evaporate into the atmosphere from the surface of the water.

Adsorption in the soil: Adsorption to the solid phase of the soil is not foreseeable.

AEP

Partition coefficient: soil/water

37000

12.5. Results of PBT and vPvB assessment

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

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According to Annex XIII of Regulation (EC) No.1907 / 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH): The product does not meet the requirements for classification as PBT (persistent / bioaccumulative / toxic) and vPvB (very persistent / very bioaccumulative). Self-classification.

AEP

This substance / mixture does not contain components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at concentrations of 0.1% or higher.

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

12.6. Endocrine disrupting properties

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Adsorbable organic halogen compounds (AOX):

The product does not contain organic halogens.

Additional ecotoxicity information:

Due to the pH value of the product, the neutralization of residues is required before being placed in the purification plant. The correct introduction of low concentrations into the biological purification plant should not compromise the degradation activity of the activated sludge.

AEP

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lasting effects.

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: 3267

14.2. UN proper shipping name

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE; 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine)

IMDG: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE; 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine)

IATA: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE; 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine)

14.3. Transport hazard class(es)

ADR / RID: Class: 8 Label: 8



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XEPOXF fluid componente B

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8



14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: NO

IMDG: NO

IATA: NO

14.6. Special precautions for user

ADR / RID: HIN - Kemler: 80 Limited Quantities: 5 L Tunnel restriction code: (E)

Special provision: -

IMDG: EMS: F-A, S-B Limited Quantities: 5 L

IATA: Cargo: Maximum quantity: 60 L

Pass.: Maximum quantity: 5 L

Special provision: A3, A803

Packaging instructions: 856

Packaging instructions: 852

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: None

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 $\geq$ than 0,1%.

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Substances subject to authorisation (Annex XIV REACH)

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

3-aminomethyl-3,5,5-trimethylcyclohexylamine

Phenyl methanol

AEP

Amines, polyethylenepoly-, tetraethylenepentamine fraction

SECTION 16. Other information

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

Flam. Liq. 3	Flammable liquid, category 3
Repr. 1B	Reproductive toxicity, category 1B
Repr. 2	Reproductive toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
STOT SE 3	Specific target organ toxicity - single exposure, category 3

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Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H226	Flammable liquid and vapour.
H360Fd	May damage fertility. Suspected of damaging the unborn child.
H361	Suspected of damaging fertility or the unborn child.
H361d	Suspected of damaging the unborn child.
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

Use descriptor system:

ERC	7	Use of functional fluid at industrial site
ERC	8a	Widespread use of non- reactive processing aid (no inclusion into or onto article, indoor)
ERC	8b	Widespread use of reactive processing aid (no inclusion into or onto article, indoor)
ERC	8c	Widespread use leading to inclusion into/onto article (indoor)
ERC	8d	Widespread use of non- reactive processing aid (no inclusion into or onto article, outdoor)
ERC	8f	Widespread use leading to inclusion into/onto article (outdoor)
PC	1	Adhesives, sealants
PROC	10	Roller application or brushing
PROC	5	Mixing or blending in batch processes

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

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- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

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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 / 08 / 11 / 12.

Exposure Scenarios

Substance	3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE
Scenario Title	IPDA
Revision nr.	1
File	1

Substance	BENZYL ALCOHOL
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Scenario Title Alcool benzilico
Revision nr. 1
File 2

Substance AEP
Scenario Title AEP
Revision nr. 1
File 3

Substance Amines, polyethylenepoly-, tetraethylenepentamine fraction
Scenario Title TETA
Revision nr. 1
File 4

Substance SALICYLIC ACID
Scenario Title acido salicilico
Revision nr. 1
File 5

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