

Safety Data Sheet

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

1.1. Product identifier

Product name

XEPOX 70 component A
XEPOX G Gel component A
XEPOXG3000 Gel component A

Chemical name and synonym

Epoxy resin

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

Identified Uses:

Component (epoxy/melamine) for bicomponent epoxy adhesive for professionals uses in construction sector. Indicated for gluing of wooden structural elements, metals, concrete and FRP.

Professional Uses:

SU: 10, 13, 17, 19.
ERC: 10a, 10b, 11a, 11b.
PROC: 10, 13, 19, 9.
AC: 13, 2, 4.
PC: 1, 15, 18.

Industrial Uses:

SU: 12, 13, 15, 16, 17, 18, 19.
ERC: 10a, 10b, 11a, 11b, 12a, 12b, 5, 7.
PROC: 1, 10, 13, 19, 2, 22, 23, 5, 8a, 8b, 9.
AC: 1, 2, 4, 7.
PC: 1, 32.

1.3. Details of the supplier of the safety data sheet

Name	Rotho Blaas Srl
Full address	via dell'Adige 2/1 - Cortaccia (BZ) 39040 ITALY
Country	ITALIA
Telephone	+39 0471 81 84 84

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 +44 0344 892 0111

Ireland NPIC (01) 809 2566
(01) 809 2166

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 2015/830.

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 1	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.

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:

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

Contains:	Oxiran, mono[(C12-14-alkyloxy)methyl] derivs. reaction product: bisphenol-F-(epichlorhydrin) (number average molecular weight <700) reaction product: bisphenol-A-(epichlorhydrin)
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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 greater than 0,1%.

SECTION 3. Composition/information on ingredients

Rotho Blaas Srl

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
BARIUM SULFATE		
CAS 7727-43-7	50 ≤ x < 75	Substance with a community workplace exposure limit.
EC 231-784-4		
INDEX -		
Reg. No. REACH exempted		
reaction product: bisphenol-F-(epichlorhydrin) (number average molecular weight <700)		
CAS 9003-36-5	30 ≤ x < 50	Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411
EC 500-006-8		
INDEX -		
Reg. no. 01-2119454392-40-xxxx		
reaction product: bisphenol-A-(epichlorhydrin)		
CAS 1675-54-3	5 ≤ x < 10	Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411
EC 216-823-5		
INDEX -		
Reg. no. 01-2119456619-26-XXXX		
Oxiran, mono[(C12-14-alkyloxy)methyl] derivs.		
CAS 68609-97-2	1 ≤ x < 5	Skin Irrit. 2 H315, Skin Sens. 1 H317
EC 271-846-8		
INDEX 603-103-00-4		
Reg. no. 01-2119485289-22-xxxx		

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

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

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

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

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

Information not available

SECTION 5. Firefighting measures

reaction product: bisphenol-F-(epichlorhydrin) (number average molecular weight <700)

Protection devices and clothing for the Fire Brigade:

Positive-pressure scubas and fire protective clothing have to be worn.

COOL ALL THE HEATED HOLDERS DOWN BY MEANS OF WATER.

Uninflammable products.

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

Individual precaution: keep away from fire and sparks. Do not smoke. Avoid contact with skin, eye and garment. Do not breathe the steam or dust. Wear protective equipment (look at chapter 8).

Environment precaution: Do not allow drainage of the product. Do not contaminate the water surface. Avoid penetration under the ground.

Cleaning instruction: to impregnate with absorbing suitable material (sand, sawing, fossil flour, universal binder).

And dispose of the residue like indicated in chapter 13.

6.1. Personal precautions, protective equipment and emergency procedures

Information not available

6.2. Environmental precautions

Information not available

6.3. Methods and material for containment and cleaning up

Information not available

6.4. Reference to other sections

Information not available

SECTION 7. Handling and storage

Manipulation: It is necessary to look at the alert hazard normally indicated in the manipulation of the chemical product. Make sure the work environment is well ventilated or an extractor fan is installed.

Use a filter mask for organic vapour in presence of product vapour. Combination type A2/P2 (particulate, solid/gas and organic vapour)

Open the container and handle it with care.

Type of warehouse according to VCI: 10 (harmful liquid for environment).

7.1. Precautions for safe handling

Information not available

7.2. Conditions for safe storage, including any incompatibilities

Information not available

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

DEU Deutschland
ESP España
GBR United Kingdom
ITA Italia
EU OEL EU
TLV-ACGIH

TRGS 900 (Fassung 31.1.2018 ber.) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte
INSHT - Límites de exposición profesional para agentes químicos en España 2017
EH40/2005 Workplace exposure limits
Decreto Legislativo 9 Aprile 2008, n.81
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 91/322/EEC.
ACGIH 2017

BARIUM SULFATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
MAK	DEU	1,5			RESP

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VLA	ESP	10
WEL	GBR	4
VLEP	ITA	0,5
OEL	EU	0,5
TLV-ACGIH		5

reaction product: bisphenol-F-(epichlorhydrin) (number average molecular weight <700)
Predicted no-effect concentration - PNEC

Normal value in fresh water	0,003	mg/l
Normal value in marine water	0,0003	mg/l
Normal value for fresh water sediment	0,294	mg/kg/d
Normal value for marine water sediment	0,0294	mg/kg/d
Normal value for water, intermittent release	0,0254	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the terrestrial compartment	0,237	mg/kg

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				6,25 mg/kg bw/d				
Inhalation				8,7 mg/m3				29,39 mg/m3
Skin				62,5 mg/kg bw/d	0,0083 mg/cm2			104,15 mg/kg bw/d

reaction product: bisphenol-A-(epichlorhydrin)
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
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

AMORPHOUS SILICATE HYDRATE
Threshold Limit Value

Type	Country	TWA/8h	STEL/15min
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		mg/m ³	ppm	mg/m ³	ppm
AGW	DEU	4			INHAL
MAK	DEU	4			INHAL

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

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0072	mg/l
Normal value in marine water	0,00072	mg/l
Normal value for fresh water sediment	307,16	mg/kg
Normal value for marine water sediment	30,72	mg/kg
Normal value for water, intermittent release	0,072	mg/l
Normal value of STP microorganisms	10	mg/l

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				0,5 mg/kg bw/d				
Inhalation				0,87 mg/m ³				3,6 mg/m ³
Skin				0,5 mg/kg bw/d				1 mg/kg bw/d

Legend:

(C) = CEILING (ACGIH) ; 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.

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 exposition 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).

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 Directive 89/686/EEC 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 B 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.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	viscous liquid
Colour	
Odour	characteristic
Odour threshold	Not available
pH	Not available
Melting point / freezing point	Not available
Initial boiling point	> 100 °C
Boiling range	Not available
Flash point	> 100 °C
Evaporation Rate	Not available
Flammability of solids and gases	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	2,00 g/ml
Solubility	soluble in organic solvents
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	0
VOC (volatile carbon) :	0
Viscosity at 25°C [mPa.s]	450000

SECTION 10. Stability and reactivity

reaction product: bisphenol-F-(epichlorhydrin) (number average molecular weight <700)

Conditions to be avoided: The product is stable under normal conditions.

Substances to be avoided: acids, amines, alkalis and oxidising agents. The product reacts to these substances, thus causing high heat to be produced (exothermic reaction).

Risks due to decomposition: if the product does not burn thoroughly, carbon monoxide and/or phenolic oxides are released. It decomposes before being on the boil.

Further chemical reactivity: high exothermic reaction, if amines are present.

10.1. Reactivity

The product may react exothermically on contact with strong oxidising or reducing agents, strong acids or bases.

reaction product: bisphenol-A-(epichlorhydrin)

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

Avoid contact with: strong oxidising agents, sodium hydroxide.

10.2. Chemical stability

Excessively high temperatures can cause thermal decomposition.

reaction product: bisphenol-A-(epichlorhydrin)

Stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

See paragraph 10.1.

10.4. Conditions to avoid

Avoid overheating.

10.5. Incompatible materials

Oxidising or reducing agents. Strong acids or bases.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

reaction product: bisphenol-A-(epichlorhydrin)

In decomposition develops: carbon monoxide, halogenated compounds.

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 toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

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

Information not available

Interactive effects

Information not available

ACUTE TOXICITY (Calculated)

LC50 (Inhalation) of the mixture:
Not classified (no significant component)
LD50 (Oral) of the mixture:
Not classified (no significant component)
LD50 (Dermal) of the mixture:
Not classified (no significant component)

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

LD50 (Oral) 26800 mg/kg

LD50 (Dermal) > 4000 mg/kg

LC50 (Inhalation) > 0,15 mg/l Tempo di esposizione: 7 h

reaction product: bisphenol-F-(epichlorhydrin) (number average molecular weight <700)

LD50 (Oral) > 5000 mg/kg Linee Guida 401 per il Test dell'OECD

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

reaction product: bisphenol-A-(epichlorhydrin)

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

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

BARIUM SULFATE

LD50 (Oral) > 3000 mg/kg Mouse

SKIN CORROSION / IRRITATION

Causes skin irritation

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

reaction product: bisphenol-F-(epichlorhydrin) (number average molecular weight <700)

reaction product: bisphenol-A-(epichlorhydrin)

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

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

reaction product: bisphenol-F-(epichlorhydrin) (number average molecular weight <700)

reaction product: bisphenol-A-(epichlorhydrin)

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

Skin sensitization

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

Skin sensitization

reaction product: bisphenol-A-(epichlorhydrin)

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

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

reaction product: bisphenol-F-(epichlorhydrin) (number average molecular weight <700)

reaction product: bisphenol-A-(epichlorhydrin)

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

reaction product: bisphenol-A-(epichlorhydrin)

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

Adverse effects on sexual function and fertility
Oxiran, mono[(C12-14-alkyloxy)methyl] derivs.

Adverse effects on sexual function and fertility
reaction product: bisphenol-F-(epichlorhydrin) (number average molecular weight <700)

Adverse effects on sexual function and fertility
reaction product: bisphenol-A-(epichlorhydrin)

Adverse effects on development of the offspring
Oxiran, mono[(C12-14-alkyloxy)methyl] derivs.

Adverse effects on development of the offspring
reaction product: bisphenol-F-(epichlorhydrin) (number average molecular weight <700)

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Adverse effects on development of the offspring
reaction product: bisphenol-A-(epichlorhydrin)

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

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

reaction product: bisphenol-F-(epichlorhydrin) (number average molecular weight <700)

reaction product: bisphenol-A-(epichlorhydrin)

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

reaction product: bisphenol-A-(epichlorhydrin)

SECTION 12. Ecological information

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

12.1. Toxicity

reaction product: bisphenol-F-(epichlorhydrin) (number average molecular weight <700)

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

LC50 - for Fish

> 100 mg/l Linee Guida 203 per il Test dell'OECD

EC50 - for Crustacea

7,2 mg/l/48h OECD TG 202

EC50 - for Algae / Aquatic Plants

843 mg/l OECD TG 201

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reaction product: bisphenol-F-(epichlorhydrin) (number average molecular weight <700)

LC50 - for Fish

0,55 mg/l Linee Guida 203 per il Test dell'OECD

EC50 - for Crustacea

1,6 mg/l Metodo: OECD TG 202

EC50 - for Algae / Aquatic Plants

1,8 mg/l Metodo: OECD TG 201

reaction product: bisphenol-A-(epichlorhydrin)

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

12.2. Persistence and degradability

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

reaction product: bisphenol-F-(epichlorhydrin) (number average molecular weight <700)

reaction product: bisphenol-A-(epichlorhydrin)

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

NOT rapidly degradable

BARIUM SULFATE

Solubility in water

0,1 - 100 mg/l

Degradability: information not available

12.3. Bioaccumulative potential

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

reaction product: bisphenol-F-(epichlorhydrin) (number average molecular weight <700)

reaction product: bisphenol-A-(epichlorhydrin)

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

BCF

200

reaction product: bisphenol-A-(epichlorhydrin)

Partition coefficient: n-octanol/water

2,281

BCF

< 6,8 10 ug/l

12.4. Mobility in soil

reaction product: bisphenol-F-(epichlorhydrin) (number average molecular weight <700)

reaction product: bisphenol-A-(epichlorhydrin)

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

Partition coefficient: soil/water

> 5,63

12.5. Results of PBT and vPvB assessment

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

reaction product: bisphenol-F-(epichlorhydrin) (number average molecular weight <700)

reaction product: bisphenol-A-(epichlorhydrin)

12.6. Other adverse effects

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

reaction product: bisphenol-F-(epichlorhydrin) (number average molecular weight <700)

reaction product: bisphenol-A-(epichlorhydrin)

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

ADR / RID, IMDG, 3082

IATA:

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

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

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

14.2. UN proper shipping name

ADR / RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-F-(epichlorhydrin) (number average molecular weight <700); reaction product: bisphenol-A-(epichlorhydrin))

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-F-(epichlorhydrin) (number average molecular weight <700); reaction product: bisphenol-A-(epichlorhydrin))

IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-F-(epichlorhydrin) (number average molecular weight <700); reaction product: bisphenol-A-(epichlorhydrin))

14.3. Transport hazard class(es)

ADR / RID: Class: 9 Label: 9

IMDG: Class: 9 Label: 9

IATA: Class: 9 Label: 9



14.4. Packing group

ADR / RID, IMDG, III
IATA:

14.5. Environmental hazards

ADR / RID: Environmentall
y Hazardous
IMDG: Marine
Pollutant
IATA: Environmentall
y 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 Instructions:	A97, A158, A197	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

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/EC: E2

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

Product
Point

3

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 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

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

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

EUH205	Contains epoxy constituents. May produce an allergic reaction.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.

Use descriptor system:

AC	1	Vehicles
AC	13	Plastic articles
AC	2	Machinery, mechanical appliances, electrical/electronic articles
AC	4	Stone, plaster, cement, glass and ceramic articles
AC	7	Metal articles
ERC	10a	Wide dispersive outdoor use of long-life articles and materials with low release
ERC	10b	Wide dispersive outdoor use of long-life articles and materials with high or intended release (including abrasive processing)
ERC	11a	Wide dispersive indoor use of long-life articles and materials with low release
ERC	11b	Wide dispersive indoor use of long-life articles and materials with high or intended release (including abrasive processing)
ERC	12a	Industrial processing of articles with abrasive techniques (low release)
ERC	12b	Industrial processing of articles with abrasive techniques (high release)
ERC	5	Industrial use resulting in inclusion into or onto a matrix
ERC	7	Industrial use of substances in closed systems
PC	1	Adhesives, sealants
PC	15	Non-metal-surface treatment products

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PC	18	Ink and toners
PC	32	Polymer preparations and compounds
PROC	1	Use in closed process, no likelihood of exposure
PROC	10	Roller application or brushing
PROC	13	Treatment of articles by dipping and pouring
PROC	19	Hand-mixing with intimate contact and only PPE available
PROC	2	Use in closed, continuous process with occasional controlled exposure
PROC	22	Potentially closed processing operations with minerals/metals at elevated temperature. Industrial setting
PROC	23	Open processing and transfer operations with minerals/metals at elevated temperature
PROC	5	Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)
PROC	8a	Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities
PROC	8b	Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
PROC	9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
SU	10	Formulation [mixing] of preparations and/or re-packaging (excluding alloys)
SU	12	Manufacture of plastics products, including compounding and conversion
SU	13	Manufacture of other non-metallic mineral products, e.g. plasters, cement
SU	15	Manufacture of fabricated metal products, except machinery and equipment
SU	16	Manufacture of computer, electronic and optical products, electrical equipment
SU	17	General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment
SU	18	Manufacture of furniture
SU	19	Building and construction work

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 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 NUMBER: 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: EC Regulation 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 STEL: Short-term exposure limit
- TWA: Time-weighted average 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) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 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)
- 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.

Changes to previous review:

The following sections were modified:

01 / 08 / 09 / 11 / 12 / Exposition Scenarios.

Exposition Scenarios

Substance reaction product: bisphenol-F-(epichlorhydrin) (number average molecular weight <700)

Scenario Title Resina epossidica da bisfenolo F (PM medio<700)

Revision nr. 1

File 1

Substance reaction product: bisphenol-A-(epichlorhydrin)

Scenario Title Resina epossidica da bisfenolo A

Revision nr. 1

File 2

Safety Data Sheet

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

1.1. Product identifier

Product name

XEPOX 70 component B
XEPOXG Gel component B
XEPOXG3000 Gel component B

Chemical name and synonym

Modified polyamines

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

Identified Uses:

Component (epoxy/melamine) for bicomponent epoxy adhesive for professionals uses in construction sector. Indicated for gluing of wooden structural elements, metals, concrete and FRP.

Identified Uses	Industrial	Professional	Consumer
	-	✓	-
	✓	-	-

1.3. Details of the supplier of the safety data sheet

Name

Rotho Blaas Srl

Full address

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

Country

ITALIA

Telephone

+39 0471 81 84 84

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 +44 0344 892 0111

Ireland NPIC (01) 809 2566
(01) 809 2166

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 2015/830.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

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Hazard classification and indication:

Acute toxicity, category 4	H302	Harmful if swallowed.
Skin corrosion, category 1A	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	H335	May cause respiratory irritation.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, chronic toxicity, category 3	H412	Harmful to aquatic life with long lasting effects.

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:

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H412	Harmful to aquatic life with long lasting effects.
EUH208	Contains: 4,4'-ISOPROPYLIDENEDIPHENOL, 2,2'-DIAMINODIETHYLAMINE May produce an allergic reaction.

Precautionary statements:

P260	Do not breathe dust / fume / gas / mist / vapours / spray.
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].
P280	Wear protective gloves/ protective clothing / eye protection / face protection.

Contains:	4,4'-methylbis(cyclohexanamine) hydrocarbon resin polymn. O,O'-BIS(2-AMINOPROPYL)POLYPROPYLENE GLYCOL 130 2,2'-DIAMINODIETHYLAMINE
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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 greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification

x = Conc. % Classification 1272/2008 (CLP)

BARIUM SULFATE

CAS 7727-43-7

$30 \leq x < 50$

Substance with a community workplace exposure limit.

EC 231-784-4

INDEX -

Reg. No. REACH Exempted

4,4'-methylbis(cyclohexanamine)

CAS 1761-71-3

$20 \leq x < 25$

Acute Tox. 4 H302, Skin Corr. 1A H314, Eye Dam. 1 H318, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Chronic 4 H413

EC 217-168-8

INDEX -

Reg. no. 01-2119979542-27-0000

hydrocarbon resin polymn.

CAS 68512-30-1

$10 \leq x < 15$

Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 3 H412

EC 700-960-7

INDEX -

Reg. no. 01-2119555274-38-0001

O,O'-BIS(2-AMINOPROPYL)POLYPROPYLENE GLYCOL 130

CAS 9046-10-0

$2,5 \leq x < 3$

Skin Corr. 1C H314, Eye Dam. 1 H318, Aquatic Chronic 2 H411

EC 618-561-0

INDEX -

Reg. no. 01-2119557899-12-xxxx

2,2'-DIAMINODIETHYLAMINE

CAS 111-40-0

$0 \leq x < 1$

Acute Tox. 2 H330, Acute Tox. 4 H302, Acute Tox. 4 H312, Skin Corr. 1B H314, Eye Dam. 1 H318, STOT SE 3 H335, Skin Sens. 1 H317

EC 203-865-4

INDEX 612-058-00-X

Reg. no. 01-2119473793-27-0006

4,4'-ISOPROPYLIDENEDIPHENOL

CAS 80-05-7

$0 \leq x < 0,3$

Repr. 1A H360F, Eye Dam. 1 H318, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Chronic 2 H411

EC 201-245-8

INDEX 604-030-00-0

Reg. no. 01-2119457856-23-xxxx

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 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

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

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

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

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

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

SECTION 7. Handling and storage

Manipulation:

It is necessary to observe the alert hazard normally indicated in the manipulation of the chemical product. Avoid skin contact.

Mechanical ventilation and local extractor fan are required. The air must be directed in the opposite way of the persons. The efficiency of the installations has to stay under control on a regular basis.

Storage:

Conserve the container well closed avoiding humidity. Keep away from food.

Protect from cooling below 5°C and from heating over 35°C.

Avoid the contact with copper and their league.

7.1. Precautions for safe handling

Information not available

7.2. Conditions for safe storage, including any incompatibilities

Information not available

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

DEU	Deutschland
ESP	España
FRA	France
GBR	United Kingdom
ITA	Italia
POL	Polska

ROU	România
EU	OEL EU

TRGS 900 (Fassung 31.1.2018 ber.) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte
INSHT - Límites de exposición profesional para agentes químicos en España 2017
JORF n°0109 du 10 mai 2012 page 8773 texte n° 102
EH40/2005 Workplace exposure limits
Decreto Legislativo 9 Aprile 2008, n.81
ROZPORZĄDZENIE MINISTRA RODZIN Y, PRAC Y I POLITYKI SPOŁECZNEJ z dnia 12 czerwca 2018 r
Monitorul Oficial al României 44; 2012-01-19
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 91/322/EEC.

TLV-ACGIH

ACGIH 2018

BARIUM SULFATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
MAK	DEU	1,5			RESP
VLA	ESP	10			
WEL	GBR	4			
VLEP	ITA	0,5			
OEL	EU	0,5			
TLV-ACGIH		5			

4,4'-methylbis(cyclohexanamine)

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,008	mg/l
Normal value in marine water	0,0008	mg/l
Normal value for fresh water sediment	137	mg/kg
Normal value for marine water sediment	13,7	mg/kg/d
Normal value for water, intermittent release	0,08	mg/l
Normal value of STP microorganisms	3,2	mg/l
Normal value for the food chain (secondary poisoning)	0,556	mg/kg
Normal value for the terrestrial compartment	27,2	mg/kg/d

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	0,125 mg/kg bw/d						
Inhalation					VND	1,5 mg/m3	VND	0,5 mg/m3
Skin			VND	0,125 mg/kg bw/d	VND	0,63 mg/kg bw/d	VND	0,21 mg/kg bw/d

hydrocarbon resin polymn.

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,014	mg/l
Normal value in marine water	0,0014	mg/l
Normal value for fresh water sediment	52,9	mg/kg
Normal value for marine water sediment	5,3	mg/kg
Normal value for water, intermittent release	0,14	mg/l
Normal value of STP microorganisms	2,4	mg/l
Normal value for the terrestrial compartment	10,5	mg/kg/d

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				

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Inhalation	28 mg/m3	57 mg/m3
Skin	8 mg/kg bw/d	16,4 mg/kg bw/d

Calcium carbonate

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
AGW	DEU	10			INHAL
AGW	DEU	3			RESP
WEL	GBR	4			RESP

TITANIUM DIOXIDE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	10			
VLEP	FRA	10			
WEL	GBR	4			
NDS	POL	10			INHAL
TLV	ROU	10		15	
TLV-ACGIH		10			

O,O'-BIS(2-AMINOPROPYL)POLYPROPYLENE GLYCOL 130

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,015	mg/l
Normal value in marine water	0,0143	mg/l
Normal value for fresh water sediment	0,132	mg/kg
Normal value for marine water sediment	0,125	mg/kg
Normal value for water, intermittent release	0,15	mg/l
Normal value of STP microorganisms	7,5	mg/l
Normal value for the food chain (secondary poisoning)	6,93	mg/kg
Normal value for the terrestrial compartment	0,0176	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								1,36 mg/m3
Skin								2,5 mg/kg bw/d

2,2'-DIAMINODIETHYLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	4,3	1		SKIN
VLEP	FRA	4	1		

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WEL	GBR	4,3	1	SKIN				
NDS	POL	4	12					
TLV	ROU	2	0,5	4	1	SKIN		
TLV-ACGIH		4,2	1					
Predicted no-effect concentration - PNEC								
Normal value in fresh water				0,56	mg/l			
Normal value in marine water				0,056	mg/l			
Normal value for fresh water sediment				1072	mg/kg			
Normal value for marine water sediment				107,2	mg/kg			
Normal value for the terrestrial compartment				214	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	4,88 mg/kg	VND						
Inhalation	VND	27,5 mg/m^3	2,6 mg/m^3	15,4 mg/m^3	VND	92,1 mg/m^3		
Skin	VND	4,88 mg/kg					1,1 mg/kg	11,4 mg/kg
4,4'-ISOPROPYLIDENEDIPHENOL								
Threshold Limit Value								
Type	Country	TWA/8h		STEL/15min				
		mg/m3	ppm	mg/m3	ppm			
OEL	EU	2	INHAL					
Predicted no-effect concentration - PNEC								
Normal value in fresh water				0,018	mg/l			
Normal value in marine water				0,018	mg/l			
Normal value for fresh water sediment				1,2	mg/kg			
Normal value for marine water sediment				0,24	mg/kg			
Normal value for water, intermittent release				0,011	mg/l			
Normal value of STP microorganisms				320	mg/l			
Normal value for the terrestrial compartment				3,7	mg/kg			
Health - Derived no-effect level - DNEL / DMEL								
	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		0,004 mg/kg bw/d		0,004 mg/kg bw/d				
Inhalation	1 mg/m3	1 mg/m3	1 mg/m3	1 mg/m3	2 mg/m3	2 mg/m3	2 mg/m3	2 mg/m3
Skin		0,0019 mg/kg bw/d	VND	0,0019 mg/kg bw/d		0,031 mg/kg bw/d		0,031 mg/kg bw/d

Legend:

(C) = CEILING (ACGIH) ; 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.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

HAND PROTECTION

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

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 III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight 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.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	viscous liquid
Colour	white
Odour	characteristic
Odour threshold	Not available
pH	Not available
Melting point / freezing point	Not available

Initial boiling point	> 100 °C
Boiling range	Not available
Flash point	> 100 °C
Evaporation Rate	Not available
Flammability of solids and gases	not flammable
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,85 g/ml
Solubility	soluble in organic solvents
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	
Oxidising properties	

9.2. Other information

VOC (Directive 2010/75/EC) :	14,50 % - 268,29 g/litre
Viscosity at 25°C [mPa.s]	13000

SECTION 10. Stability and reactivity

10.1. Reactivity

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

O,O'-BIS(2-AMINOPROPYL)POLYPROPYLENE GLYCOL 130

Avoid contact with: acids.

Polymerises developing heat on contact with: epoxy compounds.

Possible formation of corrosive vapours.

May attack: aluminium.

May react dangerously if exposed to: isocyanates.

Reacts violently developing heat on contact with: acids.

Stable in normal conditions of use and storage.

2,2'-DIAMINODIETHYLAMINE

Avoid contact with: acids, oxidising agents.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

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

2,2'-DIAMINODIETHYLAMINE

Polymerises developing heat on contact with: epoxy compounds.

10.4. Conditions to avoid

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

10.5. Incompatible materials

2,2'-DIAMINODIETHYLAMINE

Corrodes: mild steel, aluminium, iron.

Avoid contact with: alcohols, acids, halogenated compounds, nitrites.

10.6. Hazardous decomposition products

Information not available

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 toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

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

4,4'-methylbis(cyclohexanamine)

Interactive effects

Information not available

ACUTE TOXICITY (calculated)

LC50 (Inhalation) of the mixture:

> 20 mg/l

LD50 (Oral) of the mixture:

1520,00 mg/kg

LD50 (Dermal) of the mixture:

Not classified (no significant component)

hydrocarbon resin polymn.

LD50 (Oral) > 2000 mg/kg rat OECD 423

LD50 (Dermal) > 2000 mg/kg rat OECD 402

LC50 (Inhalation) > 5 mg/l rat OECD 403

4,4'-ISOPROPYLIDENEDIPHENOL

LD50 (Oral) > 2000 mg/kg

LD50 (Dermal) 3000 mg/kg

O,O'-BIS(2-AMINOPROPYL)POLYPROPYLENE GLYCOL 130

LD50 (Oral) 2885 mg/kg Rat

LD50 (Dermal) 2980 mg/kg Rabbit

LC50 (Inhalation) > 0,74 mg/l/8h Rat

4,4'-methylbis(cyclohexanamine)

LD50 (Oral) 380 mg/kg rat ECHA Chem

BARIUM SULFATE

LD50 (Oral) > 3000 mg/kg Mouse

2,2'-DIAMINODIETHYLAMINE

LD50 (Oral) 1140 mg/kg Rat

LD50 (Dermal) 1045 mg/kg Rabbit

LC50 (Inhalation) 1,8 mg/l/4h Rat

2,2'-DIAMINODIETHYLAMINE

SKIN CORROSION / IRRITATION

Corrosive for the skin

4,4'-methylbis(cyclohexanamine)

hydrocarbon resin polymn.

O,O'-BIS(2-AMINOPROPYL)POLYPROPYLENE GLYCOL 130

2,2'-DIAMINODIETHYLAMINE

4,4'-ISOPROPYLIDENEDIPHENOL

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

4,4'-methylbis(cyclohexanamine)

O,O'-BIS(2-AMINOPROPYL)POLYPROPYLENE GLYCOL 130

2,2'-DIAMINODIETHYLAMINE

4,4'-ISOPROPYLIDENEDIPHENOL

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

May produce an allergic reaction. Contains: 4,4'-ISOPROPYLIDENEDIPHENOL
2,2'-DIAMINODIETHYLAMINE

4,4'-methylbis(cyclohexanamine)

hydrocarbon resin polymn.

2,2'-DIAMINODIETHYLAMINE

4,4'-ISOPROPYLIDENEDIPHENOL

Skin sensitization

O,O'-BIS(2-AMINOPROPYL)POLYPROPYLENE GLYCOL 130

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

4,4'-methylbis(cyclohexanamine)

hydrocarbon resin polymn.

O,O'-BIS(2-AMINOPROPYL)POLYPROPYLENE GLYCOL 130

2,2'-DIAMINODIETHYLAMINE

4,4'-ISOPROPYLIDENEDIPHENOL

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

hydrocarbon resin polymn.

2,2'-DIAMINODIETHYLAMINE

4,4'-ISOPROPYLIDENEDIPHENOL

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

4,4'-methylbis(cyclohexanamine)

hydrocarbon resin polymn.

2,2'-DIAMINODIETHYLAMINE

Adverse effects on sexual function and fertility

O,O'-BIS(2-AMINOPROPYL)POLYPROPYLENE GLYCOL 130

Rotho Blaas Srl

4,4'-ISOPROPYLIDENEDIPHENOL

Adverse effects on development of the offspring
4,4'-ISOPROPYLIDENEDIPHENOL

STOT - SINGLE EXPOSURE

May cause respiratory irritation

hydrocarbon resin polymn.

2,2'-DIAMINODIETHYLAMINE

4,4'-ISOPROPYLIDENEDIPHENOL

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

4,4'-methylbis(cyclohexanamine)

O,O'-BIS(2-AMINOPROPYL)POLYPROPYLENE GLYCOL 130

2,2'-DIAMINODIETHYLAMINE

4,4'-ISOPROPYLIDENEDIPHENOL

ASPIRATION HAZARD

Rotho Blaas Srl

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

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

12.1. Toxicity

hydrocarbon resin polymn.
2,2'-DIAMINODIETHYLAMINE

hydrocarbon resin polymn.

LC50 - for Fish

25,8 mg/l/96h fish OECD TG 203

EC50 - for Crustacea

> 14 mg/l/48h daphnia OECD TG 202

EC50 - for Algae / Aquatic Plants

15 mg/l/72h algae OECD TG 201

4,4'-ISOPROPYLIDENEDIPHENOL

LC50 - for Fish

4,6 mg/l/96h

EC50 - for Crustacea

10,2 mg/l/48h

EC50 - for Algae / Aquatic Plants

1,1 mg/l/72h

Chronic NOEC for Crustacea

0,17 mg/l

O,O'-BIS(2-AMINOPROPYL)POLYPROPYLENE
GLYCOL 130

LC50 - for Fish

> 15 mg/l/96h OECD 203 Fish

EC50 - for Crustacea

80 mg/l/48h OECD 202 Daphnia sp.

EC50 - for Algae / Aquatic Plants

15 mg/l/72h OECD 201 Algae

Chronic NOEC for Algae / Aquatic
Plants

0,32 mg/l OECD 201 Algae

4,4'-methylbis(cyclohexanamine)

LC50 - for Fish

< 100 mg/l/96h Specie : Ido dorato (Leuciscus idus)

EC50 - for Crustacea

6,84 mg/l/48h Specie : Daphnia magna

EC50 - for Algae / Aquatic Plants

141,2 mg/l/72h

2,2'-DIAMINODIETHYLAMINE

LC50 - for Fish

430 mg/l/96h Poecilia reticulata

EC50 - for Crustacea

65 mg/l/48h Daphnia magna

EC50 - for Algae / Aquatic Plants

187 mg/l/72h Selenastrum capricornutum

12.2. Persistence and degradability

4,4'-methylbis(cyclohexanamine)
O,O'-BIS(2-AMINOPROPYL)POLYPROPYLENE GLYCOL 130
2,2'-DIAMINODIETHYLAMINE
4,4'-ISOPROPYLIDENEDIPHENOL

4,4'-ISOPROPYLIDENEDIPHENOL

Rapidly degradable

O,O'-BIS(2-AMINOPROPYL)POLYPROPYLENE
GLYCOL 130

Solubility in water

100000 mg/l

NOT rapidly degradable

4,4'-methylbis(cyclohexanamine)

NOT rapidly degradable

BARIUM SULFATE

Solubility in water

0,1 - 100 mg/l

Degradability: information not available

2,2'-DIAMINODIETHYLAMINE

Solubility in water

1000 - 10000 mg/l

Rapidly degradable

12.3. Bioaccumulative potential

4,4'-methylbis(cyclohexanamine)
2,2'-DIAMINODIETHYLAMINE
4,4'-ISOPROPYLIDENEDIPHENOL

4,4'-ISOPROPYLIDENEDIPHENOL

BCF

< 13,3

2,2'-DIAMINODIETHYLAMINE

Partition coefficient: n-octanol/water

-5,58

12.4. Mobility in soil

2,2'-DIAMINODIETHYLAMINE
4,4'-ISOPROPYLIDENEDIPHENOL

4,4'-ISOPROPYLIDENEDIPHENOL

Partition coefficient: soil/water

< 931

2,2'-DIAMINODIETHYLAMINE

Partition coefficient: soil/water

3,4

12.5. Results of PBT and vPvB assessment

4,4'-methylbis(cyclohexanamine)
O,O'-BIS(2-AMINOPROPYL)POLYPROPYLENE GLYCOL 130
4,4'-ISOPROPYLIDENEDIPHENOL

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

12.6. Other adverse effects

4,4'-methylbis(cyclohexanamine)
hydrocarbon resin polymn.
O,O'-BIS(2-AMINOPROPYL)POLYPROPYLENE GLYCOL 130
4,4'-ISOPROPYLIDENEDIPHENOL

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

ADR / RID, IMDG, 2735
IATA:

14.2. UN proper shipping name

ADR / RID: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S.
IMDG: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S.
IATA: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S.

14.3. Transport hazard class(es)

ADR / RID:	Class: 8	Label: 8
IMDG:	Class: 8	Label: 8
IATA:	Class: 8	Label: 8



14.4. Packing group

ADR / RID, IMDG, II
IATA:

14.5. Environmental hazards

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 80	Limited Quantities: 1 L	Tunnel restriction code: (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantities: 1 L	
IATA:	Cargo:	Maximum quantity: 30 L	Packaging instructions : 855
	Pass.:	Maximum quantity: 1 L	Packaging instructions : 851
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

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/EC: None

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

Product
Point

3

Contained substance

Point	30-66	4,4'-ISOPROPYLIDENEDIPHENOL Reg. no.: 01-2119457856-23-xxxx
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Substances in Candidate List (Art. 59 REACH)

4,4'-ISOPROPYLIDENEDIPHENOL

Reg. no.: 01-2119457856-23-xxxx

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 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'-DIAMINODIETHYLAMINE

SECTION 16. Other information

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

Repr. 1A	Reproductive toxicity, category 1A
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1A	Skin corrosion, category 1A
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H360F	May damage fertility.
H330	Fatal if inhaled.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H315	Causes skin irritation.

H335	May cause respiratory irritation.
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.
H413	May cause long lasting harmful effects to aquatic life.
EUH208	Contains: , 4,4'-ISOPROPYLDENEDIPHENOL, 2,2'-DIAMINODIETHYLAMINE May produce an allergic reaction.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 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 NUMBER: 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: EC Regulation 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 STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- 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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 2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
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 4. Regulation (EU) 2015/830 of the European Parliament
 5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
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 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
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- 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.

Changes to previous review:

The following sections were modified:

03 / 07 / 09 / 11 / 12 / 14.