

Safety Data Sheet

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

1.1. Product identifier

Product name

XEPOX14 Component A
XEPOXP primer component A
XEPOXP3000 primer component A

Chemical name and synonym

Modified epoxy resin

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

Description/use

Component (epoxidic/melamine) for the preparation of bicomponent epoxy adhesive for professional uses in the building sector.

Recommended for gluing of timber, metal, CLS or FRP structural elements.

Identified Uses:

Professional use:

SU: 10, 13, 17, 19.

ERC: 10a, 10b, 11a, 11b.

PROC: 10, 13, 19, 9.

AC: 13, 2, 4.

PC: 1, 15, 18.

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Industrial Use:

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.

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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

Country

ITALY

Telephone

+39 0471818400

e-mail address of the competent person

reach@rothoblaas.com

responsible for the Safety Data Sheet

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.
EUH208	Contains: Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) 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:	1,6-Hexandioldiglycidil ether reaction product: bisphenol-A-(epichlorhydrin) Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
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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

3.1. Substances

Information not relevant. See Below.

3.2. Mixtures

Contains:

Identification reaction product: bisphenol-A- (epichlorhydrin)	x = Conc. %	Classification 1272/2008 (CLP)
CAS 1675-54-3 EC 216-823-5 INDEX - Reg. no. 01-2119456619-26-XXXX	50 ≤ x < 75	Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411
1,6-Hexandioldiglycidil ether CAS 16096-31-4 EC 340-260-4 INDEX - Reg. no. 01-2119463471-41-xxxx	15 ≤ x < 25	Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 3 H412
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol CAS 9003-36-5 EC 500-006-8 INDEX - Reg. no. 01-2119454392-40-0000	15 ≤ x < 25	Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411
Reaction mass of Bis(1,2,2,6,6- pentamethyl-4-piperidyl) CAS - EC 915-687-0 INDEX - Reg. no. 01-2119491304-40-XXXX	0,25 ≤ x < 1	Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1

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

SECTION 4. First aid measures

4.1. Description of first aid measures

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

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

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

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

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

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

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

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

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

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION

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

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

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

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.

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. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

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

6.4. Reference to other sections

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

SECTION 7. Handling and storage

7.1. Precautions for safe handling

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

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

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

1,6-Hexandioldiglycidil ether

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,011	mg/l
Normal value in marine water	0,0011	mg/l

Rotho Blaas Srl

XEPOXP primer component A

Revision no. 0

Revision date 27/07/2018

Pages. 6 to 22

Normal value for fresh water sediment	0,283	mg/kg
Normal value for marine water sediment	0,0283	mg/kg
Normal value of STP microorganisms	1	mg/l
Normal value for the terrestrial compartment	0,223	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		1,5 mg/kg bw/d		1,5 mg/kg bw/d				
Inhalation		5,29 mg/m3	0,27 mg/m3	5,29 mg/m3		10,57 mg/m3	0,44 mg/m3	10,57 mg/m3
Skin	0,0136 mg/cm2	1,7 mg/kg bw/d	0,0136 mg/cm2	3 mg/kg bw/d	0,0226 mg/cm2		0,0226 mg/cm2	6 mg/kg bw/d

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

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 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			VND	6,25 mg/kg/d				
Inhalation			VND	8,7 mg/m^3			VND	29,39 mg/m^3
Skin			VND	62,5 mg/kg/d	8,3 ug/cm^2	VND	VND	104,15 mg/kg/d

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl)

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0022	mg/l
Normal value in marine water	0,00022	mg/l
Normal value for fresh water sediment	1,05	mg/kg
Normal value for marine water sediment	0,11	mg/kg
Normal value for water, intermittent release	0,009	mg/l
Normal value of STP microorganisms	1	mg/l
Normal value for the terrestrial compartment	0,21	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				1,25 mg/kg bw/d				
Inhalation				0,58 mg/m3				2,35 mg/m3
Skin				1,25 mg/kg bw/d				2,5 mg/kg bw/d

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	liquid
Colour	Not coloured - light yellow
Odour	characteristic
Odour threshold	Not available
pH	7
Melting point / freezing point	Not available
Initial boiling point	> 150 °C
Boiling range	Not available

Flash point	> 150 °C
Evaporation Rate	Not available
Flammability of solids and gases	not applicable
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	1,11
Solubility	soluble in organic solvents
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	1100
Explosive properties	not applicable
Oxidising properties	not applicable

9.2. Other information

VOC (Directive 2010/75/EC) :	0
VOC (volatile carbon) :	0
Viscosity at 25°C [mPa.s]	1100

SECTION 10. Stability and reactivity

10.1. Reactivity

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

reaction product: bisphenol-A-(epichlorhydrin)

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

Avoid contact with: strong oxidising agents, sodium hydroxide.

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Stable in normal conditions of use and storage.

10.2. Chemical stability

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

reaction product: bisphenol-A-(epichlorhydrin)

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.

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

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

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)

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

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

LD50 (Oral) > 2000 mg/kg rat

LD50 (Dermal) > 2000 mg/kg rabbit

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl)

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

LD50 (Dermal) > 3000 mg/kg Rat OECD 402

1,6-Hexandioldiglycidil ether

Observations - Oral:

The acute oral toxicity of 1,6-hexanediol diglycidyl ether (HDDGE) on Sprague-Dawley rats was assessed with a study carried out in accordance with OECD test guideline no. 401 and in compliance with the GLPs. The median lethal acute oral doses (D50) and 95% confidence limit for 1,6 hexanediol diglycidyl ether on Sprague-Dawley rats were, respectively, 3741 and 3341-4085 mg/kg of bodyweight. This level of oral toxicity does not require classification or labelling, based on the criteria of the European Community Commission (Annex VI to directive 67/548/EEC issued by the Council).

It follows that classification and labelling for acute toxicity due to oral ingestion are not required. This degree of oral toxicity does not require classification or labelling, based on the criteria of the European Community Commission (Annex VI to directive 67/548/EEC issued by the Council).

Observations - Inhalation:

Potential acute inhalation toxicity for 1,6-hexanediol diglycidyl ether (HDDGE) was assessed through a study carried out in accordance with OECD test guideline no. 433 and in compliance with the GLPs. Animals were exposed through whole-body inhalation to HDDGE, mainly in the vapour state. The highest possible concentration of HDDGE, 0.035 mg/l of air (3.7 ppm) did not induce mortality and was not toxic for rats after a single 4 hour whole-body exposure.

Potential acute cutaneous toxicity for 1,6-hexanediol diglycidyl ether (HDDGE) was assessed in a study carried out in accordance with OECD test guideline no. 402 and in compliance with the GLPs. No cases of death were observed during the course of the study. The no observed effect level (NOEL) for the testing material, 1,6-hexanediol diglycidyl ether, in Sprague-Dawley rats, was found to exceed 2000 mg/kg of bodyweight.

It follows that classification and labelling for acute cutaneous exposure are not required.

SKIN CORROSION / IRRITATION

Causes skin irritation

1,6-Hexandioldiglycidil ether

Primary Dermal Irritation Index (PDII)

Skin - Rabbit 6.2

Eyes - Conjunctival reddening in Rabbits 3.3.

reaction product: bisphenol-A-(epichlorhydrin)

Skin - Erythema/Eschar 404 Acute Dermal Irritation/Corrosion in Rabbits 1.5 - 2-

Skin - Oedema 404 Acute Dermal Irritation/Corrosion in Rabbits 1.0 - 1,5

Eyes - 405 Acute Eye Irritation/Corrosion in Rabbits 0

Eyes - Conjunctival reddening in Rabbits 0.7

Skin - Moderately irritating in Rabbits 24 hrs

Skin - Highly irritating in Rabbits 24 hrs

Eyes - Slightly irritating in Rabbits.

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

This product must be considered: Causes skin irritation. The information given is based on data obtained for similar substances. CAS: 9003-36-5 - Formaldehyde, polymer with (chloromethyl)oxirane and phenol Causes skin irritation. The tests were performed on rabbits. Reference: Registration booklet - ECHA Chem CAS: 25068-38-6 - Epoxy resin (number average molecular weight $\leq$ 700) Reaction product: bisphenol-A-(epichlorhydrin) Pursuant to annex VI to regulation EC 1272/2008: Causes skin irritation.

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl)

Based on the data available, the classification criteria are not met.

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

1,6-Hexandioldiglycidil ether

Species: In rabbits

Evaluation: Irritant

Method: OECD guideline 405 for the Test

Result: Eye irritant.

reaction product: bisphenol-A-(epichlorhydrin)

Species: In rabbits

Evaluation: Weak eye irritation

Method: OECD guideline 405 for the Test

Result: Eye irritant.

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

This product must be considered: Causes serious eye irritation. The information given is based on data obtained for similar substances. CAS: 25068-38-6 - Epoxy resin (number average molecular weight $\leq$ 700) Reaction product: bisphenol-A-(epichlorhydrin) Pursuant to annex VI to regulation EC 1272/2008: Causes serious eye irritation.

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl)

Based on the data available, the classification criteria are not met.

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

May produce an allergic reaction. Contains: Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl)

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

This product must be considered: May cause an allergic skin reaction. The information given is based on data obtained for similar substances. CAS: 9003-36-5 - Formaldehyde, polymer with (chloromethyl)oxirane and phenol Skin sensitisation test on guinea pigs - local lymph node assay (LLNA): positive Reference: Registration booklet - ECHA Chem CAS: 25068-38-6 - Epoxy resin (number average molecular weight $\leq$ 700) Reaction product: bisphenol-A-(epichlorhydrin) Pursuant to annex VI to regulation EC 1272/2008: May cause an allergic skin reaction.

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl)

May cause an allergic skin reaction.

Skin sensitization

1,6-Hexandioldiglycidil ether

The skin sensitisation potential of 1,6-hexanediol diglycidyl ether (HDDGE) was assessed with a local lymph node assay (LLNA) test on mice, carried out in accordance with OECD 429 and in compliance with the GLPs, including verification

of the stability and concentration of the substance in question. HDDGE was found to be a skin sensitiser in the local lymph node assay (LLNA) on mice. The authors concluded that the estimated concentration 3 for HDDGE on the basis of the DPM data was 1.9% p/v and determined that HDDGE has moderate skin sensitisation potential on the basis of the study results. The skin DMEL/DNEL for workers, on the basis of the results of this study, was estimated at 22.6 ug/cm².

Skin sensitization
reaction product: bisphenol-A-(epichlorhydrin)

In an LLNA in mice, conducted according to OECD 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 guinea pig maximisation study, performed according to OECD 406, BADGE induced a positive skin reaction in 100% of the laboratory animals at a 50% stimulus dose concentration. Therefore, BADGE is an "extreme" skin sensitizer under the conditions of this study. BADGE was also positive for skin sensitization in a study using the Buehler method on guinea pigs, conducted according to OECD 406.

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

1,6-Hexandioldiglycidil ether

Concentration: 5000 ug/plate
Metabolic activation: with or without metabolic activation
Method: OECD guideline 471 for the Test
Result: positive
Type of cell: Somatic
Method of application: Oral
Exposure time: 16 h
Doses: 2000 mg/kg
Method: OECD guideline 486 for the Test
Result: negative
Type of cell: Somatic
Method of application: Oral
Doses: 1000 mg/kg
Method: OECD guideline 474 for the Test
Result: negative.

reaction product: bisphenol-A-(epichlorhydrin)

In several studies, BADGE has been shown to induce gene mutation in Ames/Salmonella TA1535 and TA100 TEST strains. In general, mutagenic activity was greater without liver metabolic S9 activation. gene mutation was induced in L5178Y mouse lymphoma cells. Gene mutation and chromosomal damage were induced in Chinese hamster cells V79. Cell transformation was induced in Syrian hamster BHK cells based on clonal growth in soft agar. No evidence of chromosomal damage was found in an oral probe study in a dominant lethal test conducted in mice at high doses of up to 10 grams/kg and in a micronuclear test conducted in mice at high doses of up to 5000 mg/kg. A spermatocytic cytogenetic assay on male mice under treatment for 5 days with oral probe at a high dose of 3000 mg/kg proved negative. An increase in the frequency of chromosomal damage was not induced in a cytogenetic assay on Chinese hamster bone marrow cells, performed by oral probe with a high dose of up to 3300 mg/kg. An increase in DNA strand breakage was not induced in rat liver cells after oral gastric probe treatment with 500 mg/kg, measured by alkaline elution.

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

XEPOXP primer component A

Revision no. 0

Revision date 27/07/2018

Pages. **13 to 22**

This product must NOT be considered: Mutagenic The information given is based on data obtained for similar substances. CAS: 9003-36-5 - Formaldehyde, polymer with (chloromethyl)oxirane and phenol In vitro testing found mutagenic effects, while in vivo testing did not identify any. Reference: Registration booklet - ECHA Chem.

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl)

Based on the data available, the classification criteria are not met.

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

1,6-Hexandioldiglycidil ether

In compliance with Column 2 of the REACH regulation, Annex X, it is not necessary to perform the test (requested under Section 8.9.1) on the basis of the results of the chemical safety evaluation. Additionally, 1,6-hexanediol diglycidyl ether is not genotoxic in vivo and is not a category 3 mutagenic.

reaction product: bisphenol-A-(epichlorhydrin)

In a rat oral probe study, performed according to OECD 453, there was no evidence of carcinogenicity at high doses of up to 100 mg/kg/day. Studies of cutaneous exposure were performed on male mice and female rats according to OECD 453. No evidence of carcinogenicity was observed in male mice treated at high doses of up to 100 mg/kg/day and in female rats exposed to high doses of up to 1000 mg/kg/day.

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl)

Based on the data available, the classification criteria are not met.

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

This product must NOT be considered: Reprotoxic. The information given is based on data obtained for similar substances. CAS: 9003-36-5 - Formaldehyde, polymer with (chloromethyl)oxirane and phenol Laboratory testing on animals did not demonstrate toxic effects on reproduction. Reference: Registration booklet - ECHA Chem.

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl)

Based on the data available, the classification criteria are not met.

Adverse effects on sexual function and fertility
1,6-Hexandioldiglycidil ether

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An "advanced" reproductive toxicity study on a single generation (OECD 415) or a reproductive toxicity study on two generations (OECD 416) of rats, through an appropriate exposure method, is proposed by the members of the consortium, after approval of the experiment plan by ECHA.

Adverse effects on sexual function and fertility

reaction product: bisphenol-A-(epichlorhydrin)

Type of Test: Bigenerational study

Species: Rats, male and female

Method of application: Oral

Doses: >750 Milligrams per kilo

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

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

Symptoms: No side effects.

Method: OECD guideline 416 for the Test

Result: No effect was found on fertility and early embryo development.

Adverse effects on development of the offspring

1,6-Hexandioldiglycidil ether

The mutagenic potential of 1,6-hexanediol diglycidyl ether (HDDGE) was assessed in a bacterial mutation study carried out in accordance with OECD test guideline no. 471 and in compliance with the GLPs. Increases in mutation frequency correlated with the dose were observed in test strains TA 1535, TA 1538 and TA 100. HDDGE was mutagenic for strains TA 1535 and TA 100, with and without preparations for metabolic activation with S9 derived from rat livers. Therefore, under the reported experimental conditions, 1,6-hexanediol diglycidyl ether induced point mutations from changes in the base pairs (or mutations in strain TA 1538) in the genome of the strains used, and HDDGE is considered mutagenic in this inverse mutation assay on Salmonella typhimurium.

The capacity of 1,6-hexanediol diglycidyl ether (HDDGE) to induce repairable DNA damage was tested in an in vivo/in vitro study on rat hepatocytes, carried out in accordance with test regulation OECD 486 UDS, in compliance with the GLPs. HDDGE was tested up to an elevated oral dose of 2000 mg/kg of bodyweight. 1,6-hexanediol diglycidyl ether (HDDGE) did not induce proof of repairable DNA damage to hepatocytes following oral treatment of up to 2000 mg/kg of bodyweight. It was concluded that HDDGE is not genotoxic under the conditions of the study.

Adverse effects on development of the offspring

reaction product: bisphenol-A-(epichlorhydrin)

BADGE did not show any signs of developmental toxicity in rats and rabbits exposed by oral probe, or in rabbits treated by the dermal route, in GLP studies performed according to OECD 414. Oral probe studies were conducted at high doses of up to 180 mg/kg/day which produced maternal toxicity based on the reduction in body weight gain. In rabbits, the toxicity study was conducted at high doses of up to 300 mg/kg/day which induced maternal toxicity based on the reduction in body weight gain.

Species: In rabbits, female

Method of application: Dermal

General maternal toxicity: No level of harmfulness observed: 30 mg/kg of body weight

Method: Other reference guidelines

Result: No teratogenic effects.

Species: In rabbits, female

Method of application: Oral

General maternal toxicity: No level of harmfulness observed: 60 mg/kg of body weight

Method: OECD guideline 414 for the Test

Result: No teratogenic effects.

Species: Rats, female

Method of application: Oral

General maternal toxicity: No level of harmfulness observed: 180 mg/kg of body weight

Method: OECD guideline 414 for the Test

Result: No teratogenic effects.

Adverse effects on development of the offspring

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl)

Ames and/or Micronucleus Test: negative.

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

1,6-Hexandioldiglycidil ether
Species: Rats, male and female
NOEC: 200 mg/kg. 4.04
Method of application: Ingestion
Atmosphere test: vapour
Exposure time: 672 h Number of exposures: 6 h
Method: OECD guideline 412 for the Test.

reaction product: bisphenol-A-(epichlorhydrin)
Species: Rats, male and female
NOAEL: 50 mg/kg
Method of application: Ingestion
Exposure time: 14 Weeks Number of exposures: 7 d
Method: Subchronic toxicity
Species: Rats, male and female
NOEL: 10 mg/kg
Method of application: Skin contact
Exposure time: 13 Weeks Number of exposures: 5 d
Method: Subchronic toxicity
Species: Mice, male
NOAEL: 100 mg/kg
Method of application: Skin contact
Exposure time: 13 Weeks Number of exposures: 3 d
Method: Subchronic toxicity
Repeated dose toxicity - Evaluation
:
No adverse effects were observed in chronic toxicity tests.

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl)
Based on the data available, the classification criteria are not met.

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

reaction product: bisphenol-A-(epichlorhydrin)
There is no classification for toxicity by inhalation.

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

1,6-Hexandioldiglycidil ether

Toxicity for fish:

CL50 (Oncorhynchus mykiss (Trotta iridea)): 30 mg/l

Exposure time: 96 h

Type of Test: Semi-static test

Substance to be tested: Fresh water

Method: OECD guideline 203 for the Test

Toxicity for daphnia and other aquatic invertebrates:

CE50 (Daphnia magna (large water flea)): 47 mg/l

Exposure time: 48 h

Type of Test: Static test

Substance to be tested: Fresh water

Method: OECD TG 202

Toxicity for micro-organism:

CI50: > 100 mg/l

Exposure time: 3 h.

Type of Test: Static test

Substance to be tested: Fresh water

Method: OECD TG 209.

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

Reaction mass of Bis(1,2,2,6,6-pentamethyl-
4-piperidyl)

LC50 - for Fish

0,9 mg/l Danio rerio OECD 203

Chronic NOEC for Crustacea

> 6,3 mg/l (Daphnia) (OECD Guideline 211, Daphnia magna)

Chronic NOEC for Algae / Aquatic Plants

0,22 mg/l (Algae) (OECD Guideline 201, Desmodesmus subspicatus)

12.2. Persistence and degradability

1,6-Hexandioldiglycidil ether

Inoculum: active sludge

Concentration: 2 mg/l

Result: Non-biodegradable.

Biodegradation: circa 47%

Exposure time: 28 d

Method: OECD Test Guideline 301D.

Bisphenol A epoxy resin

In an "improved" OECD 301F study, within the 28-day contact period, the degree of biodegradation was 5%. In a study conducted according to OECD 301B, biodegradation reached 6 - 12% after 28 days of contact. Therefore BADGE is not readily biodegradable under the study conditions.

Water stability:

Degradation half-life (TD50): 4.83 d (25 °C)

pH: 4

Method: OECD TG 111

Observations: Fresh water

Degradation half-life (TD50): 7.1 d (25 °C)

pH: 9

Method: OECD TG 111

Observations: Fresh water

Degradation half-life (TD50): 3.58 d (25 °C)

pH: 7

Method: OECD TG 111

Observations: Fresh water.

Bisphenol F epoxy resin (Average PM <700)

Epoxy resin (number average molecular weight $\leq$ 700) Reaction product:

reaction product: bisphenol-A-(epichlorhydrin)

This product must NOT be considered: Rapidly biodegradable. The information given is based on data obtained for similar substances. CAS: 9003-36-5 - Formaldehyde, polymer with (chloromethyl)oxirane and phenol Not immediately biodegradable (0%/28 days). Reference: Registration booklet - ECHA Chem CAS: 25068-38-6 -

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

bisphenol-A-(epichlorhydrin) Pursuant to annex VI to regulation EC 1272/2008: Not immediately biodegradable.

1,6-Hexandioldiglycidil ether

NOT rapidly degradable

Formaldehyde, oligomeric reaction products
with 1-chloro-2,3-epoxypropane and phenol
NOT rapidly degradable

12.3. Bioaccumulative potential

1,6-Hexandioldiglycidil ether

log Pow: 0.822 (20 °C)

pH: 6 - 8

Method: OECD guideline 107 for the Test.

Bisphenol A epoxy resin

Log Pow 2.64 - 3.78

BCF 3 - 31 31,00

Low potential.

reaction product: bisphenol-A-(epichlorhydrin)

reaction product: bisphenol-A-
(epichlorhydrin)

Partition coefficient: n-octanol/water

2,281

BCF

< 6,8 10 ug/l

Formaldehyde, oligomeric reaction products
with 1-chloro-2,3-epoxypropane and phenol
BCF

150

Reaction mass of Bis(1,2,2,6,6-pentamethyl-
4-piperidyl)
BCF

< 9,7

12.4. Mobility in soil

1,6-Hexandioldiglycidil ether

Koc: circa 962

Method: OECD guideline 121 for the Test.

reaction product: bisphenol-A-(epichlorhydrin)

Diffusion to the various environmental sectors: Koc: 445.

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
Moderate to high mobility in soil. The information given is based on data obtained for similar substances. CAS: 9003-36-5 - Formaldehyde, polymer with (chloromethyl)oxirane and phenol Reference: Registration booklet - ECHA Chem.

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl)

Partition coefficient: soil/water 3,67

12.5. Results of PBT and vPvB assessment

1,6-Hexandioldiglycidil ether

This substance/mixture contains no components that are considered persistent, bioaccumulative or toxic (PBT), or very persistent and very bioaccumulative (vPvB) at concentrations of 0.1% or greater

reaction product: bisphenol-A-(epichlorhydrin)

This substance/mixture contains no components that are considered persistent, bioaccumulative or toxic (PBT), or very persistent and very bioaccumulative (vPvB) at concentrations of 0.1% or greater.

12.6. Other adverse effects

reaction product: bisphenol-A-(epichlorhydrin)

An environmental hazard cannot be ruled out in the event of improper handling or disposal by non-professionals. Toxic for aquatic life with long lasting effects.

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, IATA:	3082
ADR / RID:	In accordance with Special Provision 375, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to ADR provisions.
IMDG:	In accordance with Section 2.10.2.7 of IMDG Code, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to IMDG Code provisions.
IATA:	In accordance with SP A197, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to IATA dangerous goods regulations.

14.2. UN proper shipping name

ADR / RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin); Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin); Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol)

XEPOXP primer component A

Revision no. 0

Revision date 27/07/2018

Pages. 19 to 22

IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin); Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol)

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: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: Environmentally Hazardous



14.6. Special precautions for user

ADR / RID: HIN - Kemler: 90

Special Provision: -

IMDG: EMS: F-A, S-F

IATA: Cargo:

Pass.:

Special Instructions:

Limited
Quantities: 5
L

Limited
Quantities: 5
L

Maximum
quantity: 450
L

Maximum
quantity: 450
L

A97, A158,
A197

Tunnel
restriction
code: (-)

Packaging
instructions:
964

Packaging
instructions:
964

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

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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 but it has been done for 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.
EUH208	Contains <name of sensitising substance>. May produce an allergic reaction.
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
H412	Harmful to aquatic life with long-lasting effects
H400	Very toxic to aquatic life
H410	Very 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

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XEPOXP primer component A	Revision no. 0	Revision date 27/07/2018	Pages. 21 to 22
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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
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

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- 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.

Exposition Scenarios

Substance	reaction product: bisphenol-A-(epichlorhydrin)
Scenario Title	Resina epossidica da bisfenolo A
Revision nr.	1
File	1

Substance	reaction product: bisphenol-A-(epichlorhydrin)
Scenario Title	Resina epossidica da bisfenolo A
Revision nr.	1
File	2

Substance	1,6-Hexandioldiglicidil ether
Scenario Title	1,6-Esandiologlicidiletere
Revision nr.	1
File	3

Substance	1,6-Hexandioldiglicidil ether
Scenario Title	1,6-Esandiologlicidiletere
Revision nr.	1
File	4

Safety Data Sheet

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

1.1. Product identifier

Product name

XEPOX14 Component B
XEPOXP primer component B
XEPOXP3000 primer component B
Polyamines

Chemical name and synonym

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

Description/use

Component (epoxidic/melamine) for the preparation of bicomponent epoxy adhesive for professional uses in the building sector.

Recommended for gluing of timber, metal, CLS or FRP structural elements.

Identified Uses:

Professional use:

SU: 10, 13, 17, 19.

ERC: 10a, 10b, 11a, 11b.

PROC: 10, 13, 19, 9.

AC: 13, 2, 4.

PC: 1, 15, 18.

-

Industrial Use:

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.

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-

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 0471818400

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.
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.
H317	May cause an allergic skin reaction.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

P260	Do not breathe dust / fume / gas / mist / vapours / spray.
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Contains:	BADGE reaction product with IPDA 3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE BENZYL ALCOHOL
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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

3.1. Substances

Information not relevant. See Below.

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
BADGE reaction product with IPDA		
CAS 38294-64-3	$50 \leq x < 75$	Skin Corr. 1A H314, Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 3 H412
EC 500-101-4		
INDEX -		
Reg. no. 01-2119965165-33-0012		
BENZYL ALCOHOL		
CAS 100-51-6	$30 \leq x < 50$	Acute Tox. 4 H302, Eye Irrit. 2 H319
EC 202-859-9		
INDEX 603-057-00-5		
Reg. no. 1-2119492630-38-0000		
3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE		
CAS 2855-13-2	$5 \leq x < 15$	Acute Tox. 4 H302, Acute Tox. 4 H312, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 3 H412
EC 220-666-8		
INDEX 612-067-00-9		
Reg. no. 01-2119514687-32-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. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

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

6.4. Reference to other sections

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

SECTION 7. Handling and storage

7.1. Precautions for safe handling

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

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

DEU Deutschland
POL Polska

TRGS 900 (Fassung 31.1.2018 ber.) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte
ROZPORZĄDZENIE MINISTRA PRACY I POLITYKI SPOŁECZNEJ z dnia 7 czerwca 2017 r

BADGE reaction product with IPDA

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,011	mg/l
Normal value in marine water	0,111	mg/l
Normal value for fresh water sediment	4320	mg/kg
Normal value for marine water sediment	432	mg/kg/d
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

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		0.99 mg/kg bw/d		0.05 mg/kg bw/d				
Inhalation		1.5 mg/m3		0.074 mg/m3	VND	6,99 mg/m3	VND	0.493 mg/m3
Skin		0.05 mg/kg bw/d			VND	NPI	VND	0,14 mg/kg bw/d

BENZYL ALCOHOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
AGW	DEU	22	5	44	10
NDS	POL	240			

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	Acute local	Acute	Chronic local	Chronic

				systemic		systemic		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

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

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 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.

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	liquid
Colour	Not coloured - light yellow
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	1,01 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 applicable
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	37,00 %	-	373,70	g/litre
VOC (volatile carbon) :	28,74 %	-	290,25	g/litre
Viscosity at 25°C [mPa.s]	250			

SECTION 10. Stability and reactivity

10.1. Reactivity

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

BENZYL ALCOHOL

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

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

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

BADGE reaction product with IPDA

Reacts with: epoxy compounds, isocyanates.

BENZYL ALCOHOL

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

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

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

10.4. Conditions to avoid

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

BENZYL ALCOHOL

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

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Avoid contact with: strong acids, strong oxidants.

10.5. Incompatible materials

BENZYL ALCOHOL

Incompatible with: sulphuric acid, oxidising substances, aluminium.

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

BENZYL ALCOHOL

Subacute oral toxicity

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

Route of exposure: Oral

Species: Rats

Effective dose: 400 mg/kg bw/day

Subacute inhalatory toxicity

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

Route of exposure: Inhalation

Species: Rats

Effective dose: 1072 mg/m3

Method: OECD 412.

Interactive effects

Information not available

ACUTE TOXICITY (calculated)

LC50 (Inhalation) of the mixture:

Not classified (no significant component)

LD50 (Oral) of the mixture:

1643,00 mg/kg

LD50 (Dermal) of the mixture:

>2000 mg/kg

BENZYL ALCOHOL

LD50 (Oral) 1620 mg/kg Rat

LD50 (Dermal) 2000 mg/kg dw Rabbit

LC50 (Inhalation) > 4178 mg/l/4h Rat OCSE 403

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

LD50 (Oral) 1,03 mg/l simile a Linea Guida OECD 401

BADGE reaction product with IPDA

LD50 (Oral) 300 mg/kg rat

LD50 (Dermal) 2000 mg/kg rat

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Evaluation of acute toxicity:

Moderate toxicity after brief contact with the skin. Moderate toxicity after single ingestion.

Experimental/calculated data:

LD50 in rats (oral): 1,030 mg/kg (similar to OECD guideline 401)

LC50 in rats (inhalation): > 5.01 mg/l 4 h (OECD - guideline 403)
 LD50 in rats (dermal): > 2,000 mg/kg (OECD - guideline 402)
 The European Union has classified the substance as 'harmful'.

SKIN CORROSION / IRRITATION

Corrosive for the skin

BENZYL ALCOHOL

Primary skin irritation

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

Eye irritation

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

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Evaluation of the irritant effect:

Corrosive. Harmful to skin and eyes.

Experimental/calculated data:

Corrosion/irritation of skin in rabbits: Corrosive.

Sever ocular damage/ocular irritation in rabbits: irreversible damage (OECD guideline 405).

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

Skin sensitization

BENZYL ALCOHOL

Sensitization: (Guinea Pig): negative.

Skin sensitization

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Evaluation of the sensitizing effect:

Possible sensitization after repeated contact.

Experimental/calculated data:

Guinea Pig Maximisation Test: skin sensitization (OECD - guideline 406).

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Mutagenicity evaluation:

No mutagenic effect was found in various experiments on bacteria and mammals. The substance was not mutagenic in experiments on mammals.

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Evaluation of carcinogenicity:

Study scientifically not justified.

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Evaluation of carcinogenicity:

Study scientifically not justified.

Harmful effects on sexual function and fertility

Adverse effects on sexual function and fertility

BENZYL ALCOHOL

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

Route of exposure: Rats

Effective dose: 1072 mg/m3.

Adverse effects on development of the offspring

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Animal tests showed no signs of foetal damage.

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

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

The substance can damage the liver as a result of repeated ingestion of large quantities, as demonstrated by testing in animals.

ASPIRATION HAZARD

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

BENZYL ALCOHOL

Acute toxicity (short-term) on fish

Parameter: CL50 (BENZYL ALCOHOL; CAS No: 100-51-6)

Species: Pimephales promelas

Effective dose: = 770 mg/l

Exposure time: 1 h

Parameter: CL50 (BENZYL ALCOHOL; CAS No: 100-51-6)

Species: Pimephales promelas

Effective dose: 460 mg/l

Exposure time: 96 h

Acute toxicity (short-term) for daphnia
Parameter: EL50 (BENZYL ALCOHOL; CAS No: 100-51-6)
Species: Daphnia magna
Effective dose: = 230 mg/l
Exposure time: 48 h.
Method: OECD 202
Parameter: EL50 (BENZYL ALCOHOL; CAS No: 100-51-6)
Species: Daphnia magna
Effective dose: 66 mg/l
Exposure time: 21 days
Method: OECD 211
Chronic toxicity (long-term) for daphnia
Parameter: NOEC (BENZYL ALCOHOL; CAS No: 100-51-6)
Species: Daphnia magna (large water flea)
Effective dose: 51 mg/l
Exposure time: 21 days
Method: OECD 211
Acute toxicity (short term) for algae
Parameter: EL50 (BENZYL ALCOHOL; CAS No: 100-51-6)
Species: Pseudokirchneriella subcapitata
Effective dose: = 770 mg/l
Exposure time: 72 h
Method: OECD 201.

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Harmful (acute harmfulness) to aquatic organisms. The correct introduction of low concentrations in a biological purification plant should not compromise the breakdown of activated sludge.

Toxicity to fish:

LC50 (96 h) 110 mg/l, *Leuciscus idus* (Directive 84/449/EEC, C.1, semi-static)

Nominal value (confirmed by concentration controls).

Aquatic invertebrates:

EC50 (48 h) 23 mg/l, *Daphnia magna* (OECD - guideline 202, Part 1, static)

Nominal value (confirmed by concentration controls).

CE50 (48 h) 388 mg/l, *Chaetogammarus marinus* (semi-static)

The indications of toxic action refer to the nominal concentration.

Aquatic plants:

CE50 (72 h) > 50 mg/l (growth rate), *Scenedesmus subspicatus* (Directive 88/302/EEC, part C, p 89)

Nominal concentration.

CE10 (72 h) 11,2 mg/l (growth rate), *Scenedesmus subspicatus* (Directive 88/302/EEC, part C, p 89)

Nominal concentration.

Microorganisms/Effects on active sludge:

CE10 (18 h) 1.120 mg/l, *Pseudomonas putida* (DIN 38412 part 8)

Nominal concentration.

Chronic toxicity to fish:

Study scientifically not justified.

Chronic toxicity for aquatic invertebrates:

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

Nominal value (confirmed by concentration controls).

Evaluation of terrestrial toxicity:

Study scientifically not justified.

BENZYL ALCOHOL

EC50 - for Algae / Aquatic Plants

770 mg/l/72h *Pseudokirchneriella subcapitata*

BADGE reaction product with IPDA

LC50 - for Fish

1,79 mg/l/96h

EC50 - for Crustacea

1,75 mg/l/48h

EC50 - for Algae / Aquatic Plants

2,5 mg/l/72h

EC10 for Algae / Aquatic Plants

1,99 mg/l

Chronic NOEC for Crustacea

0,826 mg/l

Chronic NOEC for Algae / Aquatic Plants

2,07 mg/l

12.2. Persistence and degradability

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: Reduction in DOC (BENZYL ALCOHO; 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.

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Evaluation of biodegradability and elimination (H₂O):

Poor biodegradability (according to OECD criteria).

Disposal considerations:

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

Evaluation of stability in water:

When in contact with water, the substance slowly hydrolyses.

Data on stability in water (hydrolysis:

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

BENZYL ALCOHOL

Rapidly degradable

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Solubility in water

1000 - 10000 mg/l

NOT rapidly degradable

BADGE reaction product with IPDA

Solubility in water

22180 mg/l

NOT rapidly degradable

12.3. Bioaccumulative potential

BENZYL ALCOHOL

Poor bioaccumulation.

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Evaluation of bioaccumulation potential:

Based on the n-octanol/water partition coefficient (log Pow), accumulation in organisms cannot be predicted.

Bioaccumulation potential:

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

12.4. Mobility in soil

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Evaluation of transport between environmental sectors:

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

Adsorption in soil: Absorption into the solid phase of the soil is not expected.

12.5. Results of PBT and vPvB assessment

BENZYL ALCOHOL

This product is not, or does not contain, a substance called PBT or vPvB.

XEPOXP primer component B

Revision no. 0

Revision date 27/07/2018

Pages. 14 to 18

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

According to Annex XIII of Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation 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-assessment.

12.6. Other adverse effects

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Adsorbable Organic Halides (AOX):

The product does not contain organic halides.

Further ecotoxicity information:

Due to the product's pH value, the residues must be neutralized before entering the purification plant. The correct introduction of low concentrations in a biological purification plant should not compromise the breakdown of activated sludge.

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, 3267

IATA:

14.2. UN proper shipping name

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (BADGE reaction product with IPDA; 3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE)
 IMDG: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (BADGE reaction product with IPDA; 3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE)
 IATA: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (BADGE reaction product with IPDA; 3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE)

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

Rotho Blaas Srl

Via dell'Adige N.2/1 | I-39040, Cortaccia (BZ) | Italia | Tel: +39 0471 81 84 00 | Fax: +39 0471 81 84 84 | info@rothoblaas.com | www.rothoblaas.com

Banca: UniCredit SpA | Piazza Walther 4 | 39100 Bolzano | Italia | IBAN: IT08Y020081 160000030088887 | BIC: UNCRITM1965

XEPOXP primer component B

Revision no. 0

Revision date 27/07/2018

Pages. 15 to 18

ADR / RID, IMDG, I
IATA:

14.5. Environmental hazards

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 88	Limited Quantities: -	Tunnel restriction code: (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantities: -	
IATA:	Cargo:	Maximum quantity: 2,5 L	Packaging instructions: 854
	Pass.:	Maximum quantity: 0,5 L	Packaging instructions: 850
	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

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:

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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:

H412	Harmful to aquatic life with long lasting effects.
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H312	Harmful in contact with skin

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
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)

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XEPOXP primer component B	Revision no. 0	Revision date 27/07/2018	Pages. 17 to 18
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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).

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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.

Changes to previous review:

The following sections were modified:

01 / 03 / 08 / 09 / 11 / 12 / Exposition Scenarios.

Exposition Scenarios

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

Substance	3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE
Scenario Title	IPDA
Revision nr.	1
File	2