

XEPOXF fluid componente A

Safety Data Sheet

GHS_CHN/004143076196435/1
According to GB/T 16483-2008 and GB/T 17519-2013

SECTION 1. Chemical product and company identification

1.1. Product identifier

Product name

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

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

Intended use

Component A for the preparation of two-component epoxy adhesive

1.3. Details of the supplier of the safety data sheet

Name

Full address

District and Country

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

Tel. +39 0471 81 84 00

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

reach@rothoblaas.com

1.4. Emergency telephone number

For urgent inquiries refer to

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

SECTION 2. Hazards overview

2.1. Emergency overview

liquid;white

Combustible liquid. Causes serious eye irritation. Causes skin irritation. May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects.

2.2. Classification

The product is classified as hazardous pursuant to the provisions set forth in GB 30000.02 : GB 30000.29. The product thus requires a safety datasheet. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Flammable liquid, category 4

Combustible liquid.

Eye irritation, category 2

Causes serious eye irritation.

Skin irritation, category 2

Causes skin irritation.

Skin sensitization, category 1

May cause an allergic skin reaction.

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Hazardous to the aquatic environment, chronic toxicity, category 2

Toxic to aquatic life with long lasting effects.

2.3. Label elements

Hazard labelling pursuant to the provisions set forth in GB 30000.02 : GB 30000.29 and GB 15258.

Hazard pictograms:



Signal words:

Warning

Hazard statements:

H227 Combustible liquid.
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.

Prevention:

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing dust / fume / gas / mist / vapours / spray.
P280 Wear protective gloves / eye protection / face protection.
P264 Wash . . . thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.

Response:

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P302+P352 IF ON SKIN: wash with plenty of water / . . .
P362+P364 Take off contaminated clothing and wash it before reuse.
P370+P378 In case of fire: use . . . to extinguish.
P391 Collect spillage.

Storage:

P403+P235 Store in a well-ventilated place. Keep cool.

Disposal:

P501 Dispose of contents / container to . . .

Contains (%):

0,2 - 0,25 Fatty acids, C14-18 and C16-18-unsatd., maleated
1,5 - 2 1,4-Bis (2,3-epoxypropoxy) butane
4,5 - 5 Oxirane, mono [(C12-14-alkyloxy) methyl] derivatives
50 - 54 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane

2.4. Physical properties hazards

Combustible liquid.

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2.5. Health hazards

Causes serious eye irritation.
Causes skin irritation.
May cause an allergic skin reaction.

For a description of the main symptoms (when available) and the first aid instructions, please refer to sections 4 and 11 of the SDS.

2.6. Environment hazards

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

2.7. Other hazards

This product contains epoxy resins. Producer's specifications are as follows: Because of epoxy-product properties and according to the toxicological data available for similar products, this preparation may sensitize and irritate the skin and the respiratory system. It contains epoxy components at low molecular weights, which may irritate eyes, mucosas and skin. Frequent contact with skin may cause irritation and sensitization phenomena. Sensitization reactions may also be caused by other epoxy components (cross-sensitization). Avoid contact with skin and exposure to vapours and aerosols.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification GHS
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane EC 216-823-5 CAS 1675-54-3 REACH Reg. 01-2119456619-26-XXXX	$50 \leq x < 54$	Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
Oxirane, mono [(C12-14-alkyloxy)methyl] derivatives INDEX 603-103-00-4 EC 271-846-8 CAS 68609-97-2 REACH Reg. 01-2119485289-22-XXXX	$4.5 \leq x < 5$	Skin irritation, category 2 H315, Skin sensitization, category 1 H317
1,4-Bis (2,3-epoxypropoxy) butane INDEX 603-072-00-7 EC 219-371-7 CAS 2425-79-8 REACH Reg. 01-2119494060-45-XXXX	$1.5 \leq x < 2$	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Fatty acids, C14-18 and C16-18-unsatd., maleated EC 701-043-4 CAS 85711-46-2	$0.2 \leq x < 0.25$	Skin irritation, category 2 H315, Skin sensitization, category 1 H317

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REACH Reg. 01-2119976378-19-0000

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. Protective measures

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

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contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental protection measures

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

6.3. Methods to contain and eliminate the leaked chemical products

If possible contain the spilled material. Absorb with materials such as: Sand. Collect in suitable and correctly labeled containers. Provide sufficient ventilation of the place affected by the leak. The disposal of contaminated material must be carried out in accordance with the provisions of point 13.

6.4. Reference to other sections

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

SECTION 7. Handling and storage

7.1. 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. Storage

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.

Verify that the storage meets the applicable standards: GB 15603, GB 17914, GB 17195 and/or GB 17916.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

TLV-ACGIH

ACGIH 2022

TITANIUM DIOXIDE

Threshold Limit Value

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	
		mg/m3	ppm	
TLV-ACGIH		2.5		RESP

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

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

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

HAND PROTECTION

Protect hands with category III work gloves.

The following should be considered when choosing work glove material (see standard EN 374): compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

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

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

Protection of the skin of the hands:

Gloves resistant to chemical and waterproof agents compliant with approved standards must always be used when chemicals are manipulated if the risk assessment indicates the need.

Considering the parameters specified by the manufacturer of gloves, check during the use that gloves still keep their protective properties unchanged. of mixtures, composed of multiple substances, it is not possible to precisely estimate the protection time of gloves.

Material: 730 Camatril

Minimum penetration time: 480 min

Material: 898 Butoject

Minimum penetration time: 480 min

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

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	white	
Odour	characteristic	
Odour threshold	not available	
pH	not available	Reason for missing data: substance/mixture is non-soluble (in water)
Melting point / freezing point	not available	

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Initial boiling point	> 80 °C	
Boiling range	not available	
Flash point	> 80 °C	
Evaporation rate	not available	
Flammability	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	1.45 g/cm ³	Temperature: 25 °C
Solubility	soluble in organic solvents	
Partition coefficient: n-octanol/water	not available	
Auto-ignition temperature	not available	
Decomposition temperature	not available	
Viscosity	>20,5 mm ² /sec (40°C)	
Explosive properties	not available	
Oxidising properties	not available	

9.2. Other information

Information not available

SECTION 10. Stability and reactivity

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

Esothermal reaction with amines / catalysts for epoxy resins.

10.1. Reactivity

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

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

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

Avoid contact with: strong oxidising agents, sodium hydroxide.

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

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

Avoid contact with: acids, oxidising agents.

10.2. Chemical stability

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

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

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

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

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

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Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation - mists / powders) of the mixture:	> 25 mg/l
ATE (Inhalation - vapours) of the mixture:	> 100 mg/l
ATE (Oral) of the mixture:	50005,03 mg/kg
ATE (Dermal) of the mixture:	55000,03 mg/kg

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

LD50 (Oral):	26800 mg/kg
LD50 (Dermal):	> 4000 mg/kg
LC50 (Inhalation vapours):	> 0.15 mg/l Tempo di esposizione: 7 h

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

LD50 (Oral):	> 1000 mg/kg Rat
LD50 (Dermal):	> 2150 mg/kg Rat

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

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

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

LD50 (Oral):	> 2000 mg/kg rat
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SKIN CORROSION / IRRITATION

Causes skin irritation

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

Species: Rabbit

Exposure time: 24 h

Method: Acute dermal toxicity

Result: Irritating to skin.

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

Species: Rabbit

Assessment: No skin irritation

Method: OECD Test Guideline 404

Result: Evaluated on the basis of scientific evidence on humans

BPL: yes.

SERIOUS EYE DAMAGE / IRRITATION

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Causes serious eye irritation

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

Species: Rabbit

Assessment: Mild eye irritant

Method: OECD Test Guideline 405

Result: Irritating to eyes.

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

Species: Rabbit

Assessment: No eye irritation

Method: OECD Test Guideline 405

Result: mild irritation.

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

Species: Rabbit

Assessment: Severe eye irritation

Method: OECD Test Guideline 405

Result: Irreversible effects on the eyes

BPL: yes.

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

Skin sensitization

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

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

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

Test type: Buehler Test

Route of exposure: Skin

Species: Guinea pig

Method: OPPTS 870.2600

Result: May cause sensitization by skin contact.

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

Route of exposure: Skin

Species: Guinea pig

Result: Causes sensitization.

GERM CELL MUTAGENICITY

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Does not meet the classification criteria for this hazard class

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

BADGE has been found to induce gene mutation in experimental Ames / Salmonella TA1535 and TA100 strains in several studies. In general, mutagenic activity was greater without liver S9 metabolic activation. Induced gene mutation in L5178Y mouse lymphoma cells. Induced gene mutation and chromosomal damage in Chinese hamster V79 cells. Induced cell transformation into Syrian hamster BHK cells based on clonal growth in soft agar.

It induced no evidence of chromosomal damage in an oral probe study in a mouse dominant lethal test conducted up to a high dose level of 10 grams / kg and in a mouse micronuclear test conducted up to a high dose of 5000 mg / kg. Negative in a male mouse spermatocytic cytogenetic assay with treatment for 5 days by oral tube up to a high dose of 3000 mg / kg. It did not induce an increase in the frequency of chromosomal damage in an oral Chinese hamster bone marrow cell cytogenetic assay up to a high dose of 3300 mg / kg. It did not induce an increase in DNA strand breaks in rat liver cells following oral gavage treatment with 500 mg / kg, measured by alkaline elution.

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

Test type: Ames test

Test System: Salmonella typhimurium

Metabolic activation: with or without metabolic activation

Method: OECD Test Guideline 471

Result: positive

Test type: In vitro mammalian cell gene mutation test

Test System: Chinese Hamster Ovary Cells

Concentration: 0.5 - 5,000 µg / mL

Metabolic activation: with or without metabolic activation

Method: OECD Test Guideline 476

Result: negative.

Test type: In vivo micronucleus test

Species Essay: Mouse (male and female)

Cell type: Bone marrow

Method of application: Intraperitoneal injection

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

Method: OECD Test Guideline 474

Result: negative.

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

Concentration: 10 - 5000 ug / plate

Metabolic activation: with or without metabolic activation

Method: OECD Test Guideline 471

Result: positive

BPL: yes

Concentration: 1 - 100 µg / L

Metabolic activation: with or without metabolic activation

Method: OECD Test Guideline 473

Result: positive

BPL: yes.

Test type: In vivo micronucleus test

Essay on the species: Mouse

Cell type: Somatic

Application method: Oral

Exposure time: 4 d

Dose: 187.5 - 750 mg / kg

Method: OECD Test Guideline 474

Result: negative

BPL: yes

Test type: unscheduled DNA synthesis test

Essay on the species: Rat

Cell type: Liver cells

Application method: Oral

Method: OECD Test Guideline 486

Result: negative

BPL: yes.

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CARCINOGENICITY

Does not meet the classification criteria for this hazard class

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

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

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

Adverse effects on sexual function and fertility

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

Test type: Two-generation study

Species: Rat, male and female

Application method: Oral

Dose:> 750 Milligrams per kilo

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

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

Symptoms: No side effects.

Method: OECD Test Guideline 416

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

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

Species: Rat, male and female

Method of application: Dermal

Duration of the single treatment: 13 Weeks

Treatment frequency: 5 days / week

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

Method: OECD Test Guideline 411.

Adverse effects on development of the offspring

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

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

Species: Rabbit, female

Method of application: Dermal

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

Method: Other Reference Guides

Result: No teratogenic effects.

Species: Rabbit, female

Application method: Oral

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

Method: OECD Test Guideline 414

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XEPOXF fluid componente A

Result: No teratogenic effects.

Species: Rat, female

Application method: Oral

General toxicity in mothers: No observed harmful level: 180 mg / kg body weight

Method: OECD Test Guideline 414

Result: No teratogenic effects.

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

Species: Rat, female

Method of application: Dermal

Duration of the single treatment: 6 h

General toxicity in mothers: No observed harmful level: 200 mg / kg body weight

Developmental Toxicity: No observed harmful level: 200 mg / kg body weight

Method: OECD Test Guideline 414

Result: No teratogenic effects.

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

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

Species: Rat, male and female

NOAEL: 50 mg / kg

Application method: Ingestion

Exposure time: 14 Weeks Number of exposures: 7 d

Method: Subchronic toxicity

Species: Rat, 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: Mouse, 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.

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

Species: Rat, male and female

NOEL: 1 mg / kg

LOAEL: 10 mg / kg

Method of application: Skin contact

Exposure time: 13 Weeks Number of exposures: 5 days / week for 13 weeks

Method: OECD Test Guideline 411.

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XEPOXF fluid componente A

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

Species: Rat, male and female

No observed harmfulness level: 200 mg / kg

Application method: Ingestion

Exposure time: 28 d Number of exposures: 7 d

Method: Subacute toxicity.

ASPIRATION HAZARD

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

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

There is no classification for aspiration toxicity.

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

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

NOEL (48 h) 1.8 mg / l

Daphnia magna

OECD TG 202

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

Toxicity to daphnia and other aquatic invertebrates:

EC50 (Daphnia magna (Water flea)): 75 mg / l

Exposure time: 24 h

Test type: Static test

Test substance: Fresh water

Method: OECD Test Guideline 202

BPL: no

Toxicity to algae:

EL50:> 160 mg / l

Exposure time: 72 h

Test type: Static test

Test substance: Fresh water

Method: OECD Test Guideline 201

BPL: yes

Toxicity to bacteria:

CI50 (activated sludge):> 100 mg / l

Exposure time: 3 h

Test type: Static test

Test substance: Fresh water

Method: OECD Test Guideline 209

BPL: no.

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

LE50> 100 mg / l / 72h

Pseudokirchneriella subcapitata

OECD TG 201

EC50> 1000 mg / l

activated sludge

OECD TG 209

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

Chronic NOEC for Fish

100 mg/l 96 h Rainbow Trout

Chronic NOEC for Algae / Aquatic Plants

500 mg/l 72 h Selenastrum capricornutum

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XEPOXF fluid componente A

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

LC50 - for Fish

24 mg/l OECD TG 403

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

1.41 mg/l/96h Tipo di test: Prova statica

EC50 - for Crustacea

2.7 mg/l/48h Tempo di esposizione: 48 h

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

EC50 - for Crustacea

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

12.2. Persistence and degradability

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

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

Stability in water:

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

pH: 4

Method: OECD TG 111

Comments: Fresh water

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

pH: 9

Method: OECD TG 111

Comments: Fresh water

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

pH: 7

Method: OECD TG 111

Comments: Fresh water.

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

Test type: aerobic

Inoculum: activated sludge

Concentration: 100 mg / l

Result: Readily biodegradable.

Biodegradation: 87%

Exposure time: 28 d

Method: OECD Test Guideline 301F.

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

Result: Not readily biodegradable.

Biodegradation: 38%

Exposure time: 28 d

Method: OECD Test Guideline 301E.

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

NOT rapidly degradable

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

NOT rapidly degradable

12.3. Bioaccumulative potential

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

LogPow 2.64 - 3.78

BCF 3 - 31 31.00

Low potential.

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

log Pow: 3.77 (20 ° C)

Method: OECD Test Guideline 107.

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

Inoculum: activated sludge

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XEPOXF fluid componente A

Concentration: 20 mg / l

Result: Not readily biodegradable.

Biodegradation: 43%

Exposure time: 28 d

Method: OECD Test Guideline 301F.

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

Partition coefficient: n-octanol/water

2.281

BCF

< 6.8 10 ug/l

12.4. Mobility in soil

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

Diffusion in the various environmental sectors: Koc: 445.

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

Koc: 12.59 Method: OECD Test Guidelines 121.

12.5. Results of PBT and vPvB assessment

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

This substance / mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at concentrations of 0.1% or higher.

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

12.6. Other adverse effects

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

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

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

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

SECTION 13. Disposal

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to dangerous goods transport regulations.

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 $\leq$ 5Kg or 5L, is not submitted to ADR provisions.

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

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

14.2. UN proper shipping name

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

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

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

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phenyleneoxymethylene)] bisoxirane)

14.3. Transport hazard class(es)

ADR / RID: Class: 9 Label: 9

IMDG: Class: 9 Label: 9

IATA: Class: 9 Label: 9



14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: Environmentally Hazardous



14.6. Special precautions for user

ADR / RID: HIN - Kemler: 90

IMDG: Special provision: -

EMS: F-A, S-F

IATA: Cargo:

Passengers:

Special provision:

Limited Quantities: 5 L

Limited Quantities: 5 L

Maximum quantity: 450 L

Maximum quantity: 450 L

A97, A158, A197, A215

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

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

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None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

The following laws and regulations lay down provisions in terms of chemicals safety use, storage, transportation, loading/unloading, classification as well as symbol:

“ Law of the People's Republic of China on Work Safety”

“ Law of the People's Republic of China on the Prevention and Treatment of Occupational Diseases”

“ Law of the People's Republic of China on environmental protection”

“The Measures for the Administration of Registration of Hazardous Chemicals”

“ Regulations on Safe Management of Hazardous Chemicals” (2011).

Chinese existing chemicals inventory (IECSC): All components are listed or are exempt from Inventory of Existing Chemical Substances in China.

SECTION 16. Other information

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

H227	Combustible liquid.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP

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- 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
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation.

GENERAL BIBLIOGRAPHY:

- GHS rev. 4
- GB/T 16483-2008: Safety Data Sheet for Chemical Products Content and Order of Sections
- GB/T 17519-2013: Guidance on the compilation of safety data sheet for chemical products
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION

Product classification derives from criteria established by the GB 30000.02 : GB 30000.29, Part 2, unless determined otherwise in Section 11 ad 12. The data for evaluation of chemical-physical properties are reported in section 9.

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XEPOXF fluid componente B

Safety Data Sheet

GHS_CHN/004183871573926/1
According to GB/T 16483-2008 and GB/T 17519-2013

SECTION 1. Chemical product and company identification

1.1. Product identifier

Product name

XEPOXF400 Fluid componente B
XEPOXF3000 Fluid componente B
XEPOXF5000 Fluid componente B
XEPOX Fluid componente B
XEPOX26 componente B

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

Intended use

Component B for the preparation of two -component epoxy adhesive

1.3. Details of the supplier of the safety data sheet

Name

Rotho Blaas Srl

Full address

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

District and Country

Tel. +39 0471 81 84 00

e-mail address of the competent person

responsible for the Safety Data Sheet

reach@rothoblaas.com

1.4. Emergency telephone number

For urgent inquiries refer to

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

SECTION 2. Hazards overview

2.1. Emergency overview

liquid;yellow

In case of excessive exposure, call a POISON CENTER / doctor.

Combustible liquid. May damage fertility or the unborn child. May be harmful if swallowed. May cause damage to organs through prolonged or repeated exposure. Causes severe skin burns and eye damage. Causes serious eye damage. May cause an allergic skin reaction.

2.2. Classification

The product is classified as hazardous pursuant to the provisions set forth in GB 30000.02 : GB 30000.29. The product thus requires a safety datasheet. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Flammable liquid, category 4

Combustible liquid.

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XEPOXF fluid componente B

Reproductive toxicity, category 1B

Acute toxicity, category 5

Specific target organ toxicity - repeated exposure, category 2

Skin corrosion, category 1B

Serious eye damage, category 1

Skin sensitization, category 1A

May damage fertility or the unborn child.

May be harmful if swallowed.

May cause damage to organs through prolonged or repeated exposure.

Causes severe skin burns and eye damage.

Causes serious eye damage.

May cause an allergic skin reaction.

2.3. Label elements

Hazard labelling pursuant to the provisions set forth in GB 30000.02 : GB 30000.29 and GB 15258.

Hazard pictograms:



Signal words:

Danger

Hazard statements:

H227	Combustible liquid.
H360	May damage fertility or the unborn child.
H303	May be harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.

Prevention:

Precautionary

statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust / fume / gas / mist / vapours / spray.
P202	Do not handle until all safety precautions have been read and understood.
P201	Obtain special instructions before use.
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P264	Wash . . . thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.

Response:

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water / shower.
P310	Immediately call a POISON CENTER / doctor / . . .
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire: use . . . to extinguish.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Disposal:

P501	Dispose of contents / container to . . .
-------------	--

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XEPOXF fluid componente B

Contains (%):	0,2 - 0,25 Fatty acids, C18-unsatd., Dimers, reaction products with N, N-dimethyl-1,3-propanediamine and 1,3-propanediamine
	0,3 - 0,35 SALICYLIC ACID
	0,7 - 0,8 Amines, polyethylenepoly-, tetraethylenepentamine fraction
	1,5 - 2 AEP
	10,5 - 12 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine
	15,6 - 17,112 Phenyl methanol
	21 - 22,5 3-aminomethyl-3,5,5-trimethylcyclohexylamine

2.4. Physical properties hazards

Combustible liquid.

2.5. Health hazards

May damage fertility or the unborn child.
May be harmful if swallowed.
May cause damage to organs through prolonged or repeated exposure.
Causes severe skin burns and eye damage.
Causes serious eye damage.
May cause an allergic skin reaction.

For a description of the main symptoms (when available) and the first aid instructions, please refer to sections 4 and 11 of the SDS.

2.6. Environment hazards

The product is not classified as hazardous for the environment according to GB 30000.28 and GB 30000.29 criteria.

2.7. Other hazards

No other hazards known.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification GHS
3-aminomethyl-3,5,5-trimethylcyclohexylamine		
INDEX 612-067-00-9	$21 \leq x < 22.5$	Acute toxicity, category 4 H302, Skin corrosion, category 1B H314, Serious eye damage, category 1 H318, Skin sensitization, category 1 H317
EC 220-666-8		
CAS 2855-13-2		
REACH Reg. 01-2119514687-32-xxxx		
Phenyl methanol		
INDEX 603-057-00-5	$15.6 \leq x < 17.112$	Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Eye irritation, category 2 H319
EC 202-859-9		

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XEPOXF fluid componente B

CAS 100-51-6

REACH Reg. 1-2119492630-38-0000

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

EC 500-101-4

CAS 38294-64-3

REACH Reg. 01-2119965165-33-0012

AEP

INDEX 612-105-00-4

 $10.5 \leq x < 12$

Skin corrosion, category 1B H314, Serious eye damage, category 1 H318, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

 $1.5 \leq x < 2$

Reproductive toxicity, category 2 H361, Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Specific target organ toxicity - repeated exposure, category 1 H372, Skin corrosion, category 1B H314, Serious eye damage, category 1 H318, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

EC 205-411-0

CAS 140-31-8

REACH Reg. 01-2119471486-30-xxxx

Amines, polyethylenepoly-, tetraethylenepentamine fraction

 $0.7 \leq x < 0.8$

Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Skin corrosion, category 1B H314, Serious eye damage, category 1 H318, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

EC 292-588-2

CAS 90640-67-8

REACH Reg. 01-2119487919-13-xxxx

SALICYLIC ACID
 $0.3 \leq x < 0.35$

Reproductive toxicity, category 1B H360, Acute toxicity, category 4 H302, Serious eye damage, category 1 H318

EC 200-712-3

CAS 69-72-7

REACH Reg. 01-2119486984-17-xxxx

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

EC 605-296-0

CAS 162627-17-0

REACH Reg. 01-2119970640-38-xxxx

 $0.2 \leq x < 0.25$

Skin sensitization, category 1A H317

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.

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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. Protective measures

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 protection measures

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

6.3. Methods to contain and eliminate the leaked chemical products

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

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

6.4. Reference to other sections

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

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XEPOXF fluid componente B

SECTION 7. Handling and storage

7.1. Handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Storage

Store only in the original container. Store in a cool and well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

Verify that the storage meets the applicable standards: GB 15603, GB 17914, GB 17195 and/or GB 17916.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

TLV-ACGIH

ACGIH 2022

AEP

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH		4.2	0	0	0	

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

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

HAND PROTECTION

Protect hands with category III work gloves.

The following should be considered when choosing work glove material (see standard EN 374): compatibility, degradation, failure time and permeability. The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

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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.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	yellow	
Odour	characteristic	
Odour threshold	not available	
pH	11	Concentration: 100 % Temperature: 25 °C
Melting point / freezing point	not available	
Initial boiling point	> 80 °C	
Boiling range	not available	
Flash point	> 80 °C	
Evaporation rate	not available	
Flammability	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	1.45 g/cm ³	Temperature: 25 °C
Solubility	not available	
Partition coefficient: n-octanol/water	not available	
Auto-ignition temperature	not available	
Decomposition temperature	not available	
Viscosity	>20,5 mm ² /sec (40°C)	
Explosive properties	not available	
Oxidising properties	not available	

9.2. Other information

Information not available

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XEPOXF fluid componente B

SECTION 10. Stability and reactivity

SALICYLIC ACID

Decomposes under the action of heat, dangerous decomposition products:
Carbon oxides, Phenol
Dust flammability rate at more than 30 g / m³
At high free temperature: Flammable vapors cause fire or explosion hazards.

10.1. Reactivity

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

BENZYL ALCOHOL

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

AEP

Avoid contact with: acids, isocyanates, aluminium alloys.

Polymerises developing heat on contact with: epoxy compounds.

May attack: aluminium.

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

Stable in normal conditions of use and storage.

Amines, polyethylenepoly-, tetraethylenepentamine fraction

Polymerises developing heat on contact with: epoxy compounds.

10.2. Chemical stability

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

AEP

Stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

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

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

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

BENZYL ALCOHOL

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

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XEPOXF fluid componente B

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

Reacts with: epoxy compounds, isocyanates.

AEP

Polymerises developing heat on contact with: epoxy compounds.

May react violently with: acids, isocyanates.

10.4. Conditions to avoid

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

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Avoid contact with: strong acids, strong oxidants.

BENZYL ALCOHOL

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

AEP

Avoid contact with: acids.

Amines, polyethylenepoly-, tetraethylenepentamine fraction

Avoid exposure to: high temperatures.

10.5. Incompatible materials

BENZYL ALCOHOL

Incompatible with: sulphuric acid, oxidising substances, aluminium.

AEP

Incompatible materials: aluminium.

Amines, polyethylenepoly-, tetraethylenepentamine fraction

Avoid contact with: acids, oxidising agents, nitrites.

Attacks: metals.

10.6. Hazardous decomposition products

Information not available

SECTION 11. Toxicological information

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XEPOXF fluid componente B

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

Repeated dose subacute oral toxicity

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

Route of exposure: Oral route

Species: Rat

Effective dose: 400 mg / kg bw / day

Repeated dose subacute inhalation toxicity

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

Route of exposure: Inhalation

Species: Rat

Effective dose: 1072 mg / m3

Method: OECD 412.

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation) of the mixture:	> 25 mg/l
ATE (Oral) of the mixture:	2746,68 mg/kg
ATE (Dermal) of the mixture:	43300,02 mg/kg

Amines, polyethylenepoly-, tetraethylenepentamine fraction

LD50 (Oral):	1716.2 mg/kg Rat
LD50 (Dermal):	1465.4 mg/kg Rabbit

AEP

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XEPOXF fluid componente B

LD50 (Oral): 2097 mg/kg rat
LD50 (Dermal): 866 mg/kg rabbit

BENZYL ALCOHOL

LD50 (Oral): 1620 mg/kg Rat
LD50 (Dermal): 2000 mg/kg dw Rabbit
LC50 (Inhalation mists/powders): > 4.178 mg/l/4h rat OECD 403

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

LD50 (Oral): 1030 mg/kg simile a Linea Guida OECD 401
LD50 (Dermal): > 2000 mg/kg rat OECD 402
LC50 (Inhalation mists/powders): > 5.01 mg/l/4h rat OECD 403

SALICYLIC ACID

LD50 (Oral): 891 mg/kg rat
LD50 (Dermal): > 2000 mg/kg rat
LC50 (Inhalation mists/powders): > 0.9 mg/l/1h rat

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

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

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

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

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Acute toxicity assessment:

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

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

Amines, polyethylenepoly-, tetraethylenepentamine fraction

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

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

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

Eye contact: Causes serious eye damage.

SKIN CORROSION / IRRITATION

Corrosive for the skin

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Evaluation of the irritating effect:

Corrosive! Damages skin and eyes.

Experimental / calculated data:

Skin corrosion / irritation rabbit: Corrosive.

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

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XEPOXF fluid componente B

BENZYL ALCOHOL

Primary skin irritation

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

Eye irritation

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

AEP

Species: Rabbit

Assessment: Causes burns.

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

Amines, polyethylenepoly-, tetraethylenepentamine fraction

OECD 405 Acute Eye Irritation / Corrosion Rabbit Skin Corrosive

OECD 404 Acute Dermal Irritation / Corrosion Rabbit Eyes Corrosive.

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

AEP

Species: Rabbit

Assessment: Severe eye irritation

Result: Irreversible effects on the eyes.

SALICYLIC ACID

Causes serious eye damage.

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

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

AEP

Route of exposure: Skin

Species: Guinea pig

Method: OECD Test Guideline 406

Result: Causes sensitization.

Skin sensitization

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Evaluation of the sensitizing effect:

Sensitization possible after repeated contact.

Experimental / calculated data:

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XEPOXF fluid componente B

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

BENZYL ALCOHOL

Sensitization: (Guinea Pig): negative.

Amines, polyethylenepoly-, tetraethylenepentamine fraction
OECD 406 Skin Sensitization Guinea pig Skin Sensitizing.

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Mutagenicity Assessment:

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

AEP

In vitro genotoxicity:

Metabolic activation: with or without metabolic activation

Method: Guidelines 471 for the OECD test

Result: negative:

Metabolic activation: with or without metabolic activation

Method: Guidelines 476 for the OECD test

Result: negative:

Metabolic activation: negative

Method: Guidelines 482 for the OECD test

Result: negative.

Amines, polyethylenepoly-, tetraethylenepentamine fraction

OECD 471 Bacterial Reverse Mutation Test Positive

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

OECD 474 Mammalian Erythrocyte Micronucleus Negative Test.

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Carcinogenicity Assessment:

Scientifically not justified study.

Amines, polyethylenepoly-, tetraethylenepentamine fraction

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

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XEPOXF fluid componente B**REPRODUCTIVE TOXICITY**

May damage fertility or the unborn child

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Carcinogenicity Assessment:

Scientifically not justified study.

Amines, polyethylenepoly-, tetraethylenepentamine fraction

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

SALICYLIC ACID

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

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

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

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

(results obtained on a similar product)

Developmental Toxicity:

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

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

Adverse effects on sexual function and fertility

AEP

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

Adverse effects on development of the offspring**3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE**

Animal tests did not show fetal damage.

Amines, polyethylenepoly-, tetraethylenepentamine fraction

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

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

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

May cause damage to organs

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XEPOXF fluid componente B

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

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

AEP

2-piperazin-1-ylethylamine:

Route of exposure: Inhalation

Target organs: Respiratory tract

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

ASPIRATION HAZARD

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

SECTION 12. Ecological information

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

SALICYLIC ACID

Easily biodegradable product

Non bioaccumulative. Ultimate destination of the product: water.

Ecotoxicity:

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

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

12.1. Toxicity

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

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

Ichthyotoxicity:

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

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

Aquatic plants:

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

Nominal concentration.

Microorganisms / Effects on activated sludge:

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

Nominal concentration.

Chronic toxicity to fish:

Scientifically not justified study.

Chronic toxicity to aquatic invertebrates:

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

Nominal value (confirmed by concentration controls).

Terrestrial toxicity assessment:

Scientifically not justified study.

BENZYL ALCOHOL

Acute (short-term) toxicity to fish

Parameter: LC50

Species: Pimephales promelas

Effective dose: = 770 mg / l

Exposure time: 1 h

Parameter: LC50

Species: Pimephales promelas

Effective dose: 460 mg / l

Exposure time: 96 h

Acute (short-term) toxicity to daphnia

Parameter: EC50

Species: Daphnia magna

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XEPOXF fluid componente B

Effective dose: = 230 mg / l

Exposure time: 48 h.

Method: OECD 202

Parameter: EC50

Species: Daphnia magna

Effective dose: 66 mg / l

Exposure time: 21 days

Method: OECD 211

Chronic (long-term) toxicity to daphnia

Parameter: NOEC

Species: Daphnia magna (large water flea)

Effective dose: 51 mg / l

Exposure time: 21 days

Method: OECD 211

Acute (short-term) toxicity to algae

Parameter: EC50

Species: Pseudokirchneriella subcapitata

Effective dose: = 770 mg / l

Exposure time: 72 h

Method: OECD 201.

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

Acute toxicity to fish

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

Acute toxicity to aquatic invertebrates

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

Acute toxicity to algae / aquatic plants

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

Toxicity to bacteria

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

Amines, polyethylenepoly-,

tetraethylenepentamine fraction

LC50 - for Fish

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

EC50 - for Crustacea

31.1 mg/l/48h EU EC C,2 Daphnia sp,

EC50 - for Algae / Aquatic Plants

2.5 mg/l/72h OECD 201

AEP

LC50 - for Fish

368 mg/l/96h

EC50 - for Crustacea

45 mg/l/48h

EC50 - for Algae / Aquatic Plants

494 mg/l/72h

BENZYL ALCOHOL

LC50 - for Fish

> 100 mg/l/96h OECD SIDS

EC50 - for Crustacea

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

EC50 - for Algae / Aquatic Plants

770 mg/l/72h Pseudokirchneriella subcapitata

3-AMINOMETHYL 3,5,5-

TRIMETHYLCYCLOHEXYLAMINE

LC50 - for Fish

110 mg/l/96h Leuciscus idus

EC50 - for Algae / Aquatic Plants

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

SALICYLIC ACID

LC50 - for Fish

1380 mg/l/96h Pimephales promelas

EC50 - for Crustacea

870 mg/l/48h Daphnia magna

EC50 - for Algae / Aquatic Plants

> 100 mg/l/72h desmodesmus subspicatus

Chronic NOEC for Crustacea

10 mg/l 21 d Daphnia magna

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

EC50 - for Algae / Aquatic Plants

79.4 mg/l/72h

Chronic NOEC for Algae / Aquatic Plants

3.1 mg/l

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

100 mg/l/72h

12.2. Persistence and degradability

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Assessment of biodegradability and elimination (H₂O):

Hardly biodegradable (according to OECD criteria).

Disposal considerations:

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

Assessment of stability in water:

In contact with water, the substance hydrolyzes slowly.

Stability data in water (hydrolysis):

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

BENZYL ALCOHOL

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

Effective dose: 92 - 96%

Exposure time: 14 days

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

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

Effective dose: 95 - 97%

Exposure time: 21 days

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

Easily biodegradable.

AEP

Inoculum: activated sludge

Result: Not readily biodegradable.

Biodegradation: 0%

Exposure time: 28 d

Method: OECD Test Guideline 301F.

Amines, polyethylenepoly-,
tetraethylenepentamine fraction

NOT rapidly degradable

AEP

NOT rapidly degradable

BENZYL ALCOHOL

Rapidly degradable

3-AMINOMETHYL 3,5,5-

TRIMETHYLCYCLOHEXYLAMINE

Solubility in water

1000 - 10000 mg/l

NOT rapidly degradable

SALICYLIC ACID

Rapidly degradable

4,4'-Isopropylidenediphenol, oligomeric

reaction products with 1-chloro-2,3-

epoxypropane, reaction products with 3-

aminomethyl-3,5,5-trimethylcyclohexylamine

Solubility in water

pH 7-11 g/l

NOT rapidly degradable

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XEPOXF fluid componente B

12.3. Bioaccumulative potential

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Assessment of bioaccumulation potential:

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

Bioaccumulation potential:

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

BENZYL ALCOHOL

Little bioaccumulative.

AEP

Species: Fish

Remarks: Does not bioaccumulate.

Amines, polyethylenepoly-,
tetraethylenepentamine fraction

BCF 99

AEP

Partition coefficient: n-octanol/water -1.48

3-AMINOMETHYL 3,5,5-
TRIMETHYLCYCLOHEXYLAMINE

Partition coefficient: n-octanol/water 0.99 @ 23 °C and pH 6,34

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

Partition coefficient: n-octanol/water 3.6 Log Kow @ 25°C

12.4. Mobility in soil

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Transport evaluation between environmental departments:

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

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

AEP

Partition coefficient: soil/water 37000

12.5. Results of PBT and vPvB assessment

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

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

AEP

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

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

12.6. Other adverse effects

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Adsorbable organic halogen compounds (AOX):

The product does not contain organic halogens.

Additional ecotoxicity information:

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

AEP

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

SECTION 13. Disposal

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to dangerous goods transport regulations.

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: 3267

14.2. UN proper shipping name

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

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

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

14.3. Transport hazard class(es)

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8



14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: NO

IMDG: NO

IATA: NO

14.6. Special precautions for user

ADR / RID: HIN - Kemler: 80

Limited
Quantities: 5
L

Tunnel
restriction
code: (E)

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IMDG:	Special provision: - EMS: F-A, S-B	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Passengers:	Maximum quantity: 5 L	Packaging instructions: 852
	Special provision:	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

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

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

The following laws and regulations lay down provisions in terms of chemicals safety use, storage, transportation, loading/unloading, classification as well as symbol:

“ Law of the People's Republic of China on Work Safety”

“ Law of the People's Republic of China on the Prevention and Treatment of Occupational Diseases”

“ Law of the People's Republic of China on environmental protection”

“The Measures for the Administration of Registration of Hazardous Chemicals”

“ Regulations on Safe Management of Hazardous Chemicals” (2011).

Chinese existing chemicals inventory (IECSC): All components are listed or are exempt from Inventory of Existing Chemical Substances in China.

SECTION 16. Other information

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

H227	Combustible liquid.
H360	May damage fertility or the unborn child.

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H361	Suspected of damaging fertility or the unborn child.
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H303	May be harmful if swallowed.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation.

GENERAL BIBLIOGRAPHY:

- GHS rev. 4
- GB/T 16483-2008: Safety Data Sheet for Chemical Products Content and Order of Sections
- GB/T 17519-2013: Guidance on the compilation of safety data sheet for chemical products
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- 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

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thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION

Product classification derives from criteria established by the GB 30000.02 : GB 30000.29, Part 2, unless determined otherwise in Section 11 ad 12. The data for evaluation of chemical-physical properties are reported in section 9.

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