



SAFETY DATA SHEET EPO - FIX PLUS comp A

According to Regulation (EC) No 1907/2006, Annex II, as amended.

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

1.1. Product identifier

Product name EPO - FIX PLUS comp A

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

Identified uses Two-component, epoxy-based adhesive. Resin.

1.3. Details of the supplier of the safety data sheet

Supplier Rotho Blaas srl
Via Dell'Adige 2/1 I-39040 Cortaccia (BZ)
T. +39 0471 818400
F. +39 0471 818484

Web www.rothoblaas.com

Contact person reach@rothoblaas.com

1.4. Emergency telephone number

Emergency telephone +39 02 6610 1029 Centro Antiveleno Ospedale di Niguarda - Milano (H24)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317

Environmental hazards Aquatic Chronic 2 - H411

2.2. Label elements

Hazard pictograms



Signal word Warning

Hazard statements
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.

EPO - FIX PLUS comp A

Precautionary statements	P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P302+P352 IF ON SKIN: Wash with plenty of water. 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. P501 Dispose of contents/ container in accordance with national regulations.
Contains	EPOXY RESIN (Number average MW ≤ 700), EPOXY PHENOL FORMALDEHYDE RESIN, REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-CHLOROMETHYL)OXIRANE(1:2)
Supplementary precautionary statements	P261 Avoid breathing vapour/ spray. P264 Wash contaminated skin thoroughly after handling. P272 Contaminated work clothing should not be allowed out of the workplace. P321 Specific treatment (see medical advice on this label). P332+P313 If skin irritation occurs: Get medical advice/ attention. P337+P313 If eye irritation persists: Get medical advice/ attention. P362+P364 Take off contaminated clothing and wash it before reuse. P391 Collect spillage.

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

EPOXY RESIN (Number average MW ≤ 700)			20-50%
CAS number: 25068-38-6	EC number: 500-033-5		
Classification Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411			
EPOXY PHENOL FORMALDEHYDE RESIN			10-20%
CAS number: 9003-36-5	EC number: 500-006-8	REACH registration number: 01-2119454392-40	
Classification Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411			

EPO - FIX PLUS comp A

REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-CHLOROMETHYL)OXIRANE(1:2)			5-10%
CAS number: 933999-84-9	EC number: 618-939-5	REACH registration number: 01-2119463471-41	
Classification Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1A - H317 Aquatic Chronic 3 - H412			
TITANIUM DIOXIDE			<0.5%
CAS number: 13463-67-7	EC number: 236-675-5		
Classification Not Classified			

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Composition comments CAS 28064-14-4 = CAS 9003-36-5 (EU) CAS 933999-84-9 = CAS 16096-31-4 (RoW)

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Remove affected person from source of contamination. Get medical attention if any discomfort continues.
Ingestion	Do not induce vomiting. Get medical attention immediately.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing. Show this Safety Data Sheet to the medical personnel.

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

Inhalation	May cause respiratory irritation.
Ingestion	May cause stomach pain or vomiting.
Skin contact	Prolonged or repeated contact with skin may cause irritation, redness and dermatitis. May cause sensitisation by skin contact.
Eye contact	Irritating to eyes.

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

Notes for the doctor	No specific recommendations. If in doubt, get medical attention promptly.
-----------------------------	---

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with alcohol-resistant foam, carbon dioxide or dry powder.
Unsuitable extinguishing media	Do not use water, if avoidable.

5.2. Special hazards arising from the substance or mixture

EPO - FIX PLUS comp A

Specific hazards	Not considered to be a significant hazard due to the small quantities used.
Hazardous combustion products	Oxides of carbon. Oxides of nitrogen.
5.3. Advice for firefighters	
Protective actions during firefighting	No specific requirements are anticipated under normal conditions of use.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Wear protective clothing as described in Section 8 of this safety data sheet.
-----------------------------	---

6.2. Environmental precautions

Environmental precautions	Avoid release to the environment.
----------------------------------	-----------------------------------

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.
--------------------------------	--

6.4. Reference to other sections

Reference to other sections	For personal protection, see Section 8. Collect and dispose of spillage as indicated in Section 13.
------------------------------------	---

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions	Avoid contact with eyes. Avoid contact with skin.
Advice on general occupational hygiene	Do not eat, drink or smoke when using this product. No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions	Keep away from food, drink and animal feeding stuffs. Keep container tightly sealed when not in use.
----------------------------	--

7.3. Specific end use(s)

Specific end use(s)	The identified uses for this product are detailed in Section 1.2.
----------------------------	---

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

TITANIUM DIOXIDE

Long-term exposure limit (8-hour TWA): WEL 4 mg/m³ respirable dust

Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ inhalable dust

WEL = Workplace Exposure Limit

EPOXY RESIN (Number average MW ≤ 700) (CAS: 25068-38-6)

EPO - FIX PLUS comp A

DNEL	Industry - Inhalation; Long term systemic effects: 12.25 mg/m ³ Industry - Inhalation; Short term systemic effects: 12.25 mg/m ³ Industry - Dermal; Long term systemic effects: 8.33 mg/kg/day Industry - Dermal; Short term systemic effects: 8.33 mg/kg/day REACH dossier information
PNEC	- Fresh water; 0.006 mg/l - marine water; 0.0006 mg/l - Intermittent release; 0.018 mg/l - STP; 10 mg/l - Sediment (Freshwater); 0.996 mg/kg - Sediment (Marinewater); 0.0996 mg/kg - Soil; 0.196 mg/kg REACH dossier information

REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-CHLOROMETHYLOXIRANE(1:2) (CAS: 933999-84-9)

DNEL	Industry - Inhalation; Long term systemic effects: 4.9 mg/m ³ Industry - Inhalation; Short term systemic effects: 4.9 mg/m ³ Industry - Inhalation; Long term local effects: 0.44 mg/m ³ Industry - Dermal; Long term systemic effects: 2.8 mg/kg/day Industry - Dermal; Long term local effects: 22.6 µg/cm ² Industry - Dermal; Short term local effects: 22.6 µg/cm ² REACH dossier information
PNEC	- Fresh water; 0.0115 mg/l - marine water; 0.00115 mg/l - Intermittent release; 0.115 mg/l - STP; 1 mg/l - Sediment (Freshwater); 0.283 mg/kg - Sediment (Marinewater); 0.0283 mg/kg - Soil; 0.223 mg/kg REACH dossier information

TITANIUM DIOXIDE (CAS: 13463-67-7)

DNEL	Industry - Inhalation; Long term systemic effects: 10 mg/m ³ REACH dossier information
PNEC	- Fresh water; 0.127 mg/l - marine water; 1.0 mg/l - Intermittent release; 0.61 mg/l - STP; 100 mg/l - Sediment (Freshwater); 1000 mg/kg - Sediment (Marinewater); 100 mg/kg - Soil; 100 mg/kg REACH dossier information

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

No specific ventilation requirements.

EPO - FIX PLUS comp A

Eye/face protection	Wear eye protection.
Hand protection	Wear protective gloves made of the following material: Nitrile rubber.
Hygiene measures	Provide eyewash station. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes contaminated.
Respiratory protection	Not relevant.
Environmental exposure controls	Keep container tightly sealed when not in use. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Grey.
Odour	Characteristic.
Odour threshold	Not determined.
pH	Not applicable.
Melting point	Not applicable.
Initial boiling point and range	>35°C @ 760 mm Hg
Flash point	>100°C Closed cup.
Evaporation rate	No information available.
Evaporation factor	Not applicable.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Not applicable.
Other flammability	Not available.
Vapour pressure	<500 Pa @ °C
Vapour density	No information available.
Relative density	1.5 - 1.6
Bulk density	Not applicable.
Solubility(ies)	Insoluble in water.
Partition coefficient	Not determined.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	> 60 S ISO2431
Explosive properties	No information available.
Explosive under the influence of a flame	No
Oxidising properties	Does not meet the criteria for classification as oxidising.

EPO - FIX PLUS comp A

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity The following materials may react with the product: Acids. Amides. Amines. Phenols, cresols.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions The following materials may react with the product: Acids. Amides. Amines. Phenols, cresols.

10.4. Conditions to avoid

Conditions to avoid Avoid contact with acids and alkalis.

10.5. Incompatible materials

Materials to avoid Acids. Amines. Amides.

10.6. Hazardous decomposition products

Hazardous decomposition products Oxides of carbon. Oxides of nitrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Skin sensitisation

Skin sensitisation Sensitising.

General information

Contains epoxy constituents. May produce an allergic reaction.

Inhalation

No specific health hazards known.

Ingestion

No harmful effects expected from quantities likely to be ingested by accident.

Skin contact

Irritating to skin. May cause sensitisation by skin contact.

Eye contact

May cause severe eye irritation.

Acute and chronic health hazards

Irritating to skin. Irritating to eyes.

Route of exposure

Skin and/or eye contact

Medical symptoms

Skin irritation.

Medical considerations

Skin disorders and allergies.

Toxicological information on ingredients.

REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-CHLOROMETHYLOXIRANE(1:2)

Acute toxicity - oral

Acute toxicity oral (LD₅₀) 3,010.0
mg/kg)

Species Rat

SECTION 12: Ecological information

EPO - FIX PLUS comp A

12.1. Toxicity

Ecological information on ingredients.

EPOXY RESIN (Number average MW ≤ 700)

Acute aquatic toxicity

Acute toxicity - fish LC50, 96 hours: 2 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 1.8 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 72 hours: 11 mg/l, Freshwater algae
EC₅₀, 96 hours: 220 mg/l, Scenedesmus subspicatus

Chronic aquatic toxicity

Chronic toxicity - aquatic invertebrates NOEC, 21 days: 0.3 mg/l, Daphnia magna

REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-CHLOROMETHYLOXIRANE(1:2)

Acute aquatic toxicity

Acute toxicity - fish LC50, 96 hours: 30 mg/l, Oncorhynchus mykiss (Rainbow trout)

12.2. Persistence and degradability

Persistence and degradability The product is not biodegradable.

Ecological information on ingredients.

EPOXY RESIN (Number average MW ≤ 700)

Biodegradation - 12% Degradation (%): 28 days

REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-CHLOROMETHYLOXIRANE(1:2)

Biodegradation - 47% Degradation (%): 28 days
OECD 301D

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not determined.

Ecological information on ingredients.

EPOXY RESIN (Number average MW ≤ 700)

Bioaccumulative potential May accumulate in soil and water systems. BCF: 100 - 3000,

Partition coefficient log Pow: 3.242 Estimated Value

REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-CHLOROMETHYLOXIRANE(1:2)

Bioaccumulative potential BCF: < 100, Estimated Value

Partition coefficient log Pow: -0.272 Estimated Value

12.4. Mobility in soil

Mobility The product is insoluble in water and will spread on the water surface. The product is non-volatile. Semi-mobile.

EPO - FIX PLUS comp A

Ecological information on ingredients.

EPOXY RESIN (Number average MW ≤ 700)

Mobility	Semi-mobile.
Adsorption/desorption coefficient	Water - Koc: 1800 - 4400 @ 25°C Estimated Value
Henry's law constant	4.93E-05 Pa m ³ /mol @ 25°C

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

EPOXY RESIN (Number average MW ≤ 700)

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods	Residues and empty containers should be taken care of as hazardous waste according to local and national provisions. Dispose of waste via a licensed waste disposal contractor.
Waste class	The waste code classification is to be carried out according to the European Waste Catalogue (EWC).

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID)	3082
UN No. (IMDG)	3082
UN No. (ICAO)	3082
UN No. (ADN)	3082

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS EPOXY RESIN (Number average MW ≤ 700), EPOXY PHENOL FORMALDEHYDE RESIN)
Proper shipping name (IMDG)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS EPOXY RESIN (Number average MW ≤ 700), EPOXY PHENOL FORMALDEHYDE RESIN)
Proper shipping name (ICAO)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS EPOXY RESIN (Number average MW ≤ 700), EPOXY PHENOL FORMALDEHYDE RESIN)
Proper shipping name (ADN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS EPOXY RESIN (Number average MW ≤ 700), EPOXY PHENOL FORMALDEHYDE RESIN)

14.3. Transport hazard class(es)

ADR/RID class	9
ADR/RID classification code	M6

EPO - FIX PLUS comp A

ADR/RID label	9
IMDG class	9
ICAO class/division	9
ADN class	9

Transport labels



14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ICAO packing group	III
ADN packing group	III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

EmS	F-A, S-F
ADR transport category	3
Emergency Action Code	•3Z
Hazard Identification Number (ADR/RID)	90
Tunnel restriction code	(-)

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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation	(EU) No 2015/830
Guidance	Workplace Exposure Limits EH40.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	09/01/2020

EPO - FIX PLUS comp A

Version number	2.002
Supersedes date	27/07/2018
SDS number	20841
Hazard statements in full	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H411 Toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.



SAFETY DATA SHEET EPO-FIX PLUS comp B

According to Regulation (EC) No 1907/2006, Annex II, as amended.

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

1.1. Product identifier

Product name EPO - FIX PLUS comp B

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

Identified uses Two-component, epoxy-based adhesive. Hardener.

1.3. Details of the supplier of the safety data sheet

Supplier Rotho Blaas srl
Via Dell'Adige 2/1 I-39040 Cortaccia (BZ)
T. +39 0471 818400
F. +39 0471 818484

Web www.rothoblaas.com

Contact person reach@rothoblaas.com

1.4. Emergency telephone number

Emergency telephone +39 02 6610 1029 Centro Antiveleno Ospedale di Niguarda - Milano (H24)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Acute Tox. 4 - H302 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317

Environmental hazards Aquatic Chronic 3 - H412

Human health Corrosive. Prolonged contact causes serious eye and tissue damage.

Environmental The product contains a substance which may have hazardous effects on the environment.

2.2. Label elements

Hazard pictograms



Signal word 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.

EPO - FIX PLUS comp B

Precautionary statements	P273 Avoid release to the environment. 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. P501 Dispose of contents/ container in accordance with national regulations.
Contains	1,3-CYCLOHEXANEBIS(METHYLAMINE), STYRENATED PHENOL, SALICYLIC ACID, 1,3-BENZENEDIMETHANAMINE
Supplementary precautionary statements	P264 Wash contaminated skin thoroughly after handling. P260 Do not breathe vapours. P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P333+P313 If skin irritation or rash occurs: Get medical advice/ attention. P362+P364 Take off contaminated clothing and wash it before reuse. P405 Store locked up.

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

1,3-CYCLOHEXANEBIS(METHYLAMINE)			20-50%
CAS number: 2579-20-6	EC number: 219-941-5	REACH registration number: 01-2119543741-41	
Classification Acute Tox. 4 - H302 Acute Tox. 4 - H312 Skin Corr. 1A - H314 Aquatic Chronic 3 - H412			

STYRENATED PHENOL			5-10%
CAS number: 61788-44-1	EC number: 262-975-0	REACH registration number: 01-2119979575-18	
Classification Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1A - H317 Aquatic Chronic 2 - H411			

SALICYLIC ACID			5-10%
CAS number: 69-72-7	EC number: 200-712-3	REACH registration number: 01-2119486984-17	
Classification Acute Tox. 4 - H302 Eye Dam. 1 - H318			

EPO - FIX PLUS comp B

1,3-BENZENEDIMETHANAMINE	1-5%
CAS number: 1477-55-0	EC number: 216-032-5
Classification Acute Tox. 4 - H302 Acute Tox. 4 - H332 Skin Corr. 1B - H314 Skin Sens. 1B - H317 Aquatic Chronic 3 - H412	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Remove affected person from source of contamination. Get medical attention if any discomfort continues.
Ingestion	Do not induce vomiting. Get medical attention immediately.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing. Show this Safety Data Sheet to the medical personnel.

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

Inhalation	Irritation of nose, throat and airway.
Ingestion	May cause stomach pain or vomiting.
Skin contact	Burning pain and severe corrosive skin damage. Blistering may occur. Chemical burns.
Eye contact	May cause blurred vision and serious eye damage.

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

Notes for the doctor	No specific recommendations. If in doubt, get medical attention promptly.
-----------------------------	---

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with alcohol-resistant foam, carbon dioxide or dry powder.
Unsuitable extinguishing media	Do not use water, if avoidable.

5.2. Special hazards arising from the substance or mixture

Specific hazards	No specific firefighting precautions applicable when small quantities are involved in the fire.
Hazardous combustion products	Oxides of carbon. Oxides of nitrogen.

5.3. Advice for firefighters

Protective actions during firefighting	No specific firefighting precautions known.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

EPO - FIX PLUS comp B

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions Collect and dispose of spillage as indicated in Section 13. Contain spillage with sand, earth or other suitable non-combustible material. Avoid discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. Collect and dispose of spillage as indicated in Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid contact with skin. Avoid contact with eyes. Do not empty into drains.

Advice on general occupational hygiene Do not eat, drink or smoke when using this product. No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Keep away from food and drink. Keep container tightly sealed when not in use.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

1,3-CYCLOHEXANEBIS(METHYLAMINE)

Long-term exposure limit (8-hour TWA): WEL 0.1 ppm(Sk) 0.8 mg/m³(Sk)

Sk

WEL = Workplace Exposure Limit

Sk = Can be absorbed through skin.

1,3-CYCLOHEXANEBIS(METHYLAMINE) (CAS: 2579-20-6)

DNEL

REACH dossier information

Industry - Inhalation; Short term systemic effects: 21.2 mg/m³

Industry - Dermal; Long term systemic effects: 0.2 mg/kg/day

Industry - Inhalation; Long term systemic effects: 0.71 mg/m³

Industry - Dermal; Short term systemic effects: 6 mg/kg/day

PNEC

REACH dossier information

- Intermittent release; 0.331 mg/l

- marine water; 0.00331 mg/l

- Fresh water; 0.0331 mg/l

- STP; 10 mg/l

EPO - FIX PLUS comp B

STYRENATED PHENOL (CAS: 61788-44-1)

DNEL	REACH dossier information Industry - Dermal; Long term systemic effects: 0.416666667 mg/kg/day Industry - Inhalation; Long term systemic effects: 0.734649123 mg/m³
PNEC	REACH dossier information - Sediment (Marinewater); 43.65269484 mg/kg - Intermittent release; 0.01371 mg/l - STP; 1.0638 mg/l - marine water; 0.0001371 mg/l - Sediment (Freshwater); 43.65269484 mg/kg - Soil; 20.64517608 mg/kg - Fresh water; 0.001371 mg/l

SALICYLIC ACID (CAS: 69-72-7)

DNEL	REACH dossier information Industry - Inhalation; Long term systemic effects: 16 mg/m³ Industry - Dermal; Long term systemic effects: 2 mg/kg/day
PNEC	REACH dossier information - Sediment (Freshwater); 1.42 mg/kg - Soil; 0.166 mg/kg - Sediment (Marinewater); 0.142 mg/kg - Intermittent release; 1 mg/l - Fresh water; 0.2 mg/l - STP; 162 mg/l - marine water; 0.02 mg/l

1,3-BENZENEDIMETHANAMINE (CAS: 1477-55-0)

PNEC	- Sediment (Freshwater); 0.43 mg/kg - Fresh water; 0.094 mg/l - Soil; 0.045 mg/kg - marine water; 0.0094 mg/l - Sediment (Marinewater); 0.043 mg/kg - STP; 10 mg/l - Intermittent release; 0.152 mg/l
-------------	---

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

The following protection should be worn: Tight-fitting safety glasses. Contact lenses should not be worn when working with this chemical.

Hand protection

Wear protective gloves made of the following material: Nitrile rubber.

Other skin and body protection

Avoid contact with skin. Wear appropriate clothing to prevent repeated or prolonged skin contact.

EPO - FIX PLUS comp B

Hygiene measures	Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Use engineering controls to reduce air contamination to permissible exposure level.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn.
Environmental exposure controls	Keep container tightly sealed when not in use. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Buff.
Odour	Characteristic. Amine.
Odour threshold	Not determined.
pH	Not applicable.
Melting point	Not determined.
Initial boiling point and range	Not determined.
Flash point	>100°C Closed cup.
Evaporation rate	Not determined.
Evaporation factor	Not determined.
Flammability (solid, gas)	Not determined.
Upper/lower flammability or explosive limits	Not determined.
Other flammability	Not applicable.
Vapour pressure	Not determined.
Vapour density	Not determined.
Relative density	1.4 - 1.5
Bulk density	Not available.
Solubility(ies)	Not determined.
Partition coefficient	Not determined.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	Not determined.
Explosive properties	No information available.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

SECTION 10: Stability and reactivity

EPO - FIX PLUS comp B

10.1. Reactivity

Reactivity The following materials may react with the product: Acids. Epoxides. Oxidising agents. Peroxides.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions The following materials may react with the product: Acids. Epoxides. Oxidising agents. Peroxides.

10.4. Conditions to avoid

Conditions to avoid No specific requirements are anticipated under normal conditions of use.

10.5. Incompatible materials

Materials to avoid Acids. Epoxides. Oxidising agents. Peroxides.

10.6. Hazardous decomposition products

Hazardous decomposition products Oxides of carbon. Oxides of nitrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 1,244.54

Acute toxicity - dermal

ATE dermal (mg/kg) 3,234.71

Acute toxicity - inhalation

ATE inhalation (dusts/mists mg/l) 58.23

Skin sensitisation

Skin sensitisation Sensitising.

Inhalation Vapour may irritate respiratory system/lungs.

Ingestion May cause stomach pain or vomiting.

Skin contact May cause sensitisation by skin contact. May cause serious chemical burns to the skin.

Eye contact Risk of serious damage to eyes. May cause chemical eye burns.

Acute and chronic health hazards May cause sensitisation by skin contact. Causes severe burns.

Route of exposure Skin and/or eye contact Inhalation

Target organs No specific target organs known.

Medical symptoms Symptoms following overexposure may include the following: Chemical burns.

Toxicological information on ingredients.

1,3-CYCLOHEXANEBIS(METHYLAMINE)

Acute toxicity - oral

EPO - FIX PLUS comp B

Acute toxicity oral (LD₅₀
mg/kg)

700.0

Species

Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀
mg/kg)

1,700.0

Species

Rabbit

STYRENATED PHENOLAcute toxicity - oral

Acute toxicity oral (LD₅₀
mg/kg)

2,000.0

Species

Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀
mg/kg)

2,000.0

Species

Rat

SALICYLIC ACIDAcute toxicity - oral

Acute toxicity oral (LD₅₀
mg/kg)

891.0

Species

Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀
mg/kg)

2,000.0

Species

Rat

1,3-BENZENEDIMETHANAMINEAcute toxicity - oral

Acute toxicity oral (LD₅₀
mg/kg)

1,090.0

Species

Rat

ATE oral (mg/kg)

1,090.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀
mg/kg)

2,000.0

Species

Rat

Acute toxicity - inhalation

Acute toxicity inhalation
(LC₅₀ dust/mist mg/l)

1.34

EPO - FIX PLUS comp B

Species	Rat
ATE inhalation (dusts/mists mg/l)	1.34

SECTION 12: Ecological information

12.1. Toxicity

Ecological information on ingredients.

1,3-CYCLOHEXANEBIS(METHYLAMINE)

Acute aquatic toxicity

Acute toxicity - fish	LC50, > 96 hours: 100 mg/l, Leuciscus idus (Golden orfe)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 29 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , > 96 hours: 100 mg/l, Scenedesmus subspicatus
Acute toxicity - terrestrial	EC ₅₀ , > 14 days: 1000 mg/kg, Eisenia Fetida (Earthworm)

STYRENATED PHENOL

Acute aquatic toxicity

Acute toxicity - fish	LC50, 96 hours: 14.8 mg/l,
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 1-10 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: 3.14 mg/l, Scenedesmus subspicatus

Chronic aquatic toxicity

NOEC	0.01 < NOEC ≤ 0.1
------	-------------------

SALICYLIC ACID

Acute aquatic toxicity

Acute toxicity - fish	LC50, 48 hours: 90 mg/l, Leuciscus idus (Golden orfe)
Acute toxicity - microorganisms	EC ₅₀ , > 3 hours: 3200 mg/l, Activated sludge

1,3-BENZENEDIMETHANAMINE

Acute aquatic toxicity

Acute toxicity - fish	LC50, 96 hours: 75 mg/l, Leuciscus idus (Golden orfe)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 15.2 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: 12 mg/l, Scenedesmus subspicatus

12.2. Persistence and degradability

Persistence and degradability There are no data on the degradability of this product.

12.3. Bioaccumulative potential

EPO - FIX PLUS comp B

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not determined.

12.4. Mobility in soil

Mobility Mobile. The product is miscible with water and may spread in water systems.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

Disposal methods Dispose of waste via a licensed waste disposal contractor.

Waste class The waste code classification is to be carried out according to the European Waste Catalogue (EWC).

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 2735

UN No. (IMDG) 2735

UN No. (ICAO) 2735

UN No. (ADN) 2735

14.2. UN proper shipping name

Proper shipping name (ADR/RID) AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS 1,3-CYCLOHEXANEBIS(METHYLAMINE), 1,3-BENZENEDIMETHANAMINE)

Proper shipping name (IMDG) AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS 1,3-CYCLOHEXANEBIS(METHYLAMINE), 1,3-BENZENEDIMETHANAMINE)

Proper shipping name (ICAO) AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS 1,3-CYCLOHEXANEBIS(METHYLAMINE), 1,3-BENZENEDIMETHANAMINE)

Proper shipping name (ADN) AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS 1,3-CYCLOHEXANEBIS(METHYLAMINE), 1,3-BENZENEDIMETHANAMINE)

14.3. Transport hazard class(es)

ADR/RID class 8

ADR/RID classification code C7

ADR/RID label 8

IMDG class 8

ICAO class/division 8

ADN class 8

EPO - FIX PLUS comp B

Transport labels



14.4. Packing group

ADR/RID packing group	II
IMDG packing group	II
ICAO packing group	II
ADN packing group	II

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

IMDG Code segregation group	18. Alkalies
EmS	F-A, S-B
ADR transport category	2
Emergency Action Code	2X
Hazard Identification Number (ADR/RID)	80
Tunnel restriction code	(E)

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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation	(EU) No 2015/830
Guidance	Workplace Exposure Limits EH40.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	09/01/2020
Version number	3.001
Supersedes date	27/07/2018
SDS number	20842

EPO - FIX PLUS comp B

Hazard statements in full

H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.