

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product form : Mixture
Name : HYBRID ANTI-CORROSION HARDENER FOR HYBRID EPOXY PRIMER
Trade name : HYBRID ANTI-CORROSION HARDENER

1.2. Relevant identified uses of the substance or mixture and uses advised against**1.2.1. Relevant identified uses**

Use of the substance/mixture : The product is intended for professional use

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

NOVOL Sp. z o.o.

Żabikowska 7/9

62-052 KOMORNIKI

Poland

T 0048618109800 - F 0048618109809

www.novol.com

E-mail address of competent person responsible for the SDS : dokumentacja@novol.com

1.4. Emergency telephone number

Emergency number : 112

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

| | |
|---|------|
| Flammable liquids, Category 3 | H226 |
| Skin corrosion/irritation, Category 2 | H315 |
| Serious eye damage/eye irritation, Category 1 | H318 |
| Skin sensitisation, Category 1 | H317 |

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard pictograms (CLP) :



Signal word (CLP) :

Danger

Contains :

xylene; butan-1-ol; n-butanol; Amines, polyethylenepoly-, triethylenetetramine fraction

Hazard statements (CLP) :

H226 - Flammable liquid and vapour.

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H318 - Causes serious eye damage.

Precautionary statements (CLP) :

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
No smoking.

P261 - Avoid breathing vapours, spray.

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P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves, protective clothing, eye protection, face protection.
P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor.

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|---|---------|---|
| Fatty acids, C18-unsatd., dimers, oligomeric reaction products with fatty acids, C16-18 and C18-unsatd., branched and linear and triethylenetetramine (Polymer) | CAS-No.: 157707-72-7 EC-No.: 500-381-8 | < 60 | Eye Dam. 1, H318 |
| xylene substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit (Note C) | CAS-No.: 1330-20-7 EC-No.: 215-535-7 EC Index-No.: 601-022-00-9 REACH-no: 01-2119488216-32 | < 50 | Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 |
| butan-1-ol; n-butanol substance with national workplace exposure limit(s) (GB) | CAS-No.: 71-36-3 EC-No.: 200-751-6 EC Index-No.: 603-004-00-6 REACH-no: 01-2119484630-38 | < 9 | Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H336 STOT SE 3, H335 |
| Amines, polyethylenepoly-, triethylenetetramine fraction | CAS-No.: 90640-67-8 EC-No.: 292-588-2 REACH-no: 01-2119487919-13 | 0.1 – 1 | Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Corr. 1, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412 |
| N-(3-(trimethoxysilyl)propyl)ethylenediamine | CAS-No.: 1760-24-3 EC-No.: 217-164-6 REACH-no: 01-2119970215-39 | 0.8 – 1 | Eye Dam. 1, H318 Skin Sens. 1, H317 |
| Amines, C12-14-tert-alkyl, bis[2-[(4,5-dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)azo]benzoato(2-)]chromate(1-) | CAS-No.: 85408-46-4 EC-No.: 287-007-4 REACH-no: -- | < 1 | Skin Sens. 1A, H317 Aquatic Chronic 2, H411 |
| methanol | CAS-No.: 67-56-1 EC-No.: 200-659-6 EC Index-No.: 603-001-00-X REACH-no: 01-2119433307-44 | < 0.003 | Flam. Liq. 2, H225 Acute Tox. 3 (Inhalation), H331 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Oral), H301 STOT SE 1, H370 |

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| Specific concentration limits: | | |
|--------------------------------|---|--|
| Name | Product identifier | Specific concentration limits |
| methanol | CAS-No.: 67-56-1 EC-No.: 200-659-6 EC Index-No.: 603-001-00-X REACH-no: 01-2119433307-44 | (3 ≤C < 10) STOT SE 2, H371 (10 ≤C ≤ 100) STOT SE 1, H370 |

Note C - Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|---------------------------------------|---|
| First-aid measures general | : General information. Refer to section 11. |
| First-aid measures after inhalation | : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| First-aid measures after skin contact | : After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. If skin irritation continues, consult a doctor. |
| First-aid measures after eye contact | : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. |
| First-aid measures after ingestion | : If swallowed: rinse mouth. Do NOT induce vomiting. Call a physician immediately. |

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

| | |
|-------------------------------------|---|
| Symptoms/effects after inhalation | : Vapours may cause drowsiness and dizziness. |
| Symptoms/effects after skin contact | : Prolonged or repeated contact may cause skin to become dry. |
| Symptoms/effects after eye contact | : May cause eye irritation. |

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

| | |
|--------------------------------|---|
| Suitable extinguishing media | : Dry chemical, CO ₂ , alcohol-resistant foam or waterspray. |
| Unsuitable extinguishing media | : Do not use a heavy water stream. |

5.2. Special hazards arising from the substance or mixture

| | |
|--|---------------------------------------|
| Hazardous decomposition products in case of fire | : Carbon monoxide. Other toxic gases. |
|--|---------------------------------------|

5.3. Advice for firefighters

| | |
|--------------------------------|--|
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |
|--------------------------------|--|

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Remove ignition sources. Ensure that there is a suitable ventilation system. Avoid any direct or indirect contact with ingredients released. Avoid contact with skin and eyes. Use personal protective equipment as required. See Section 8.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. See Section 8.

6.2. Environmental precautions

Avoid release to the environment. Do not allow to enter into surface water or drains. Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.

6.3. Methods and material for containment and cleaning up

For containment : Cover spill with non combustible material, e.g.: sand, earth, vermiculite. Mechanically recover the product.

6.4. Reference to other sections

Disposal considerations. See Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Wear personal protective equipment.

Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.
Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed.
Storage temperature : 5 – 35 °C

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

| xylene (1330-20-7) | |
|--|-----------------------------|
| EU - Indicative Occupational Exposure Limit (IOEL) | |
| Local name | Xylene, mixed isomers, pure |
| IOEL TWA [ppm] | 50 ppm |
| IOEL STEL | 442 mg/m ³ |
| IOEL STEL [ppm] | 100 ppm |
| Remark | Skin |

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| xylene (1330-20-7) | |
|---|---|
| Regulatory reference | COMMISSION DIRECTIVE 2000/39/EC |
| United Kingdom - Occupational Exposure Limits | |
| Local name | Xylene |
| WEL TWA (OEL TWA) [1] | 220 mg/m ³ o-,m-,p- or mixed isomers |
| WEL TWA (OEL TWA) [2] | 50 ppm o-,m-,p- or mixed isomers |
| WEL STEL (OEL STEL) | 441 mg/m ³ o-,m-,p- or mixed isomers |
| WEL STEL (OEL STEL) [ppm] | 100 ppm o-,m-,p- or mixed isomers |
| Remark | Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity) |
| Regulatory reference | EH40/2005 (Fourth edition, 2020). HSE |
| United Kingdom - Biological limit values | |
| Local name | Xylene, o-, m-, p- or mixed isomers |
| BMGV | 650 mmol/mol Creatinine Parameter: methyl hippuric acid - Medium: urine - Sampling time: Post shift |
| Regulatory reference | EH40/2005 (Fourth edition, 2020). HSE |
| butan-1-ol; n-butanol (71-36-3) | |
| United Kingdom - Occupational Exposure Limits | |
| Local name | Butan-1-ol |
| WEL STEL (OEL STEL) | 154 mg/m ³ |
| WEL STEL (OEL STEL) [ppm] | 50 ppm |
| Remark | Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity) |
| Regulatory reference | EH40/2005 (Fourth edition, 2020). HSE |
| methanol (67-56-1) | |
| EU - Indicative Occupational Exposure Limit (IOEL) | |
| Local name | Methanol |
| IOEL TWA | 260 mg/m ³ |
| IOEL TWA [ppm] | 200 ppm |
| Remark | Skin |
| Regulatory reference | COMMISSION DIRECTIVE 2006/15/EC |
| United Kingdom - Occupational Exposure Limits | |
| Local name | Methanol |
| WEL TWA (OEL TWA) [1] | 266 mg/m ³ |
| WEL TWA (OEL TWA) [2] | 200 ppm |
| WEL STEL (OEL STEL) | 333 mg/m ³ |
| WEL STEL (OEL STEL) [ppm] | 250 ppm |
| Remark | Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity) |
| Regulatory reference | EH40/2005 (Fourth edition, 2020). HSE |

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8.1.2. Recommended monitoring procedures

| Monitoring methods | |
|--------------------|---|
| Monitoring methods | EN 482. Workplace exposure - General requirements for the performance of procedures for the measurement of chemical agents. |

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

| xylene (1330-20-7) | |
|--|----------------------------|
| DNEL/DMEL (Workers) | |
| Acute - systemic effects, inhalation | 289 mg/m ³ |
| Acute - local effects, inhalation | 289 mg/m ³ |
| Long-term - systemic effects, dermal | 180 mg/kg bodyweight/day |
| Long-term - systemic effects, inhalation | 77 mg/m ³ |
| DNEL/DMEL (General population) | |
| Acute - systemic effects, inhalation | 174 mg/m ³ |
| Acute - local effects, inhalation | 174 mg/m ³ |
| Long-term - systemic effects, oral | 1.6 mg/kg bodyweight/day |
| Long-term - systemic effects, inhalation | 14.8 mg/m ³ |
| Long-term - systemic effects, dermal | 108 mg/kg bodyweight/day |
| PNEC (Water) | |
| PNEC aqua (freshwater) | 0.327 mg/l |
| PNEC aqua (marine water) | 0.327 mg/l |
| PNEC aqua (intermittent, freshwater) | 0.327 mg/l |
| PNEC (Sediment) | |
| PNEC sediment (freshwater) | 12.46 mg/kg dwt |
| PNEC sediment (marine water) | 12.46 mg/kg dwt |
| PNEC (Soil) | |
| PNEC soil | 2.31 mg/kg dwt |
| PNEC (STP) | |
| PNEC sewage treatment plant | 6.58 mg/l |
| butan-1-ol; n-butanol (71-36-3) | |
| DNEL/DMEL (Workers) | |
| Long-term - local effects, inhalation | 310 mg/m ³ |
| DNEL/DMEL (General population) | |
| Long-term - systemic effects, oral | 3.125 mg/kg bodyweight/day |
| Long-term - local effects, inhalation | 55 mg/m ³ |
| PNEC (Water) | |
| PNEC aqua (freshwater) | 0.082 mg/l |
| PNEC aqua (marine water) | 0.0082 mg/l |
| PNEC aqua (intermittent, freshwater) | 2.25 mg/l |

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| butan-1-ol; n-butanol (71-36-3) | |
|---|------------------|
| PNEC (Sediment) | |
| PNEC sediment (freshwater) | 0.178 mg/kg dwt |
| PNEC sediment (marine water) | 0.0178 mg/kg dwt |
| PNEC (Soil) | |
| PNEC soil | 0.015 mg/kg dwt |
| PNEC (STP) | |
| PNEC sewage treatment plant | 2476 mg/l |
| N-(3-(trimethoxysilyl)propyl)ethylenediamine (1760-24-3) | |
| PNEC (Water) | |
| PNEC aqua (freshwater) | 0.062 mg/l |
| PNEC aqua (marine water) | 0.0062 mg/l |
| PNEC aqua (intermittent, freshwater) | 0.62 mg/l |
| PNEC (Sediment) | |
| PNEC sediment (freshwater) | 0.22 mg/kg dwt |
| PNEC sediment (marine water) | 0.022 mg/kg dwt |
| PNEC (Soil) | |
| PNEC soil | 0.0085 mg/kg dwt |
| PNEC (STP) | |
| PNEC sewage treatment plant | 25 mg/l |

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

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| Hand protection | | | | | |
|-------------------|----------------------|-------------------|----------------|-------------|----------|
| Type | Material | Permeation | Thickness (mm) | Penetration | Standard |
| Disposable gloves | Viton® II | 6 (> 480 minutes) | 0,7 mm | | EN 374-3 |
| Disposable gloves | Nitrile rubber (NBR) | 2 (> 30 minutes) | 0,4 mm | | EN 374-3 |

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

| Respiratory protection | | | |
|---------------------------|--------------|-----------|----------|
| Device | Filter type | Condition | Standard |
| Gas mask with filter type | Filter A1/B1 | | EN 14387 |

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|------------------------------------|
| Physical state | : Liquid |
| Colour | : light yellow. |
| Odour | : characteristic. Amine-like. |
| Odour threshold | : 0.9 – 9 mg/m ³ Xylene |
| Melting point | : Not applicable |
| Freezing point | : Not available |
| Boiling point | : 119 – 142 °C |
| Flammability | : Not applicable |
| Explosive properties | : No data available. |
| Explosive limits | : Not available |
| Lower explosion limit | : 1.1 vol % Xylene |
| Upper explosion limit | : 8 vol % Xylene |
| Flash point | : 25 °C |
| Auto-ignition temperature | : 355 °C |
| Decomposition temperature | : Not available |
| pH | : Not available |
| Viscosity, kinematic | : Not available |
| Solubility | : Slightly soluble. |
| Partition coefficient n-octanol/water (Log Kow) | : Not available |
| Vapour pressure | : 9 hPa Xylene |
| Vapour pressure at 50°C | : Not available |
| Density | : 0.9 g/cm ³ |
| Relative density | : Not available |
| Relative vapour density at 20°C | : Not available |
| Particle characteristics | : Not applicable |

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

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SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Keep away from sources of ignition. Prevent build-up of electrostatic charges (e.g. by grounding). Protect from sunlight. Avoid high temperatures.

10.5. Incompatible materials

No contact with: strong acids, strong bases and strong oxidants.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition may produce : Carbon monoxide. Other toxic gases.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal) : Not classified. (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation) : Not classified. (Based on available data, the classification criteria are not met)

| xylene (1330-20-7) | |
|--|--|
| LD50 oral rat | 3523 mg/kg rat |
| LD50 dermal rabbit | 12126 mg/kg bodyweight Animal: rabbit, Animal sex: male |
| LC50 Inhalation - Rat | 27124 mg/l |
| butan-1-ol; n-butanol (71-36-3) | |
| LD50 oral rat | 2292 mg/kg Source: ECHA |
| LD50 dermal rabbit | 3430 mg/kg Source: ECHA |
| Amines, polyethylenepoly-, triethylenetetramine fraction (90640-67-8) | |
| LD50 oral rat | 1591.4 mg/kg Source: ECHA Chem |
| LD50 dermal rat | 1465.3 mg/kg Source: ECHA Chem |
| N-(3-(trimethoxysilyl)propyl)ethylenediamine (1760-24-3) | |
| LD50 oral rat | 2400 mg/kg Source: OECD 401, EEC 67/548 1967 |
| LD50 dermal rabbit | > 2000 mg/kg bodyweight Animal: rabbit, Guideline: EPA OPPTS 870.1200 (Acute Dermal Toxicity), Remarks on results: other: |
| LC50 Inhalation - Rat | 1.49 – 2.44 mg/l air Animal: rat, Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity), Guideline: OECD Guideline 403 (Acute Inhalation Toxicity) |
| Amines, C12-14-tert-alkyl, bis[2-[(4,5-dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)azo]benzoato(2-)]chromate(1-) (85408-46-4) | |
| LD50 oral rat | > 6000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity) |

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Skin corrosion/irritation : Causes skin irritation.

| Amines, polyethylenepoly-, triethylenetetramine fraction (90640-67-8) | |
|--|------------------------|
| pH | 13.2 Source: ECHA Chem |

Serious eye damage/irritation : Causes serious eye damage.

| Amines, polyethylenepoly-, triethylenetetramine fraction (90640-67-8) | |
|--|------------------------|
| pH | 13.2 Source: ECHA Chem |

Respiratory or skin sensitisation : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)

| butan-1-ol; n-butanol (71-36-3) | |
|--|--|
| STOT-single exposure | May cause drowsiness or dizziness. May cause respiratory irritation. |

| methanol (67-56-1) | |
|---------------------------|--------------------------|
| STOT-single exposure | Causes damage to organs. |

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

| xylene (1330-20-7) | |
|----------------------------|---|
| LOAEL (oral, rat, 90 days) | 150 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents), Guideline: EPA OPP 82-1 (90-Day Oral Toxicity) |

| butan-1-ol; n-butanol (71-36-3) | |
|--|----------------------------------|
| LOAEL (oral, rat, 90 days) | 500 mg/kg bodyweight Animal: rat |
| NOAEL (oral, rat, 90 days) | 125 mg/kg bodyweight Animal: rat |

| N-(3-(trimethoxysilyl)propyl)ethylenediamine (1760-24-3) | |
|---|---|
| NOAEL (oral, rat, 90 days) | ≥ 500 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) |
| NOAEL (dermal, rat/rabbit, 90 days) | ≥ 1545 mg/kg bodyweight Animal: rat |

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

| butan-1-ol; n-butanol (71-36-3) | |
|--|--------------------------|
| Viscosity, kinematic | 3.641 mm ² /s |

| N-(3-(trimethoxysilyl)propyl)ethylenediamine (1760-24-3) | |
|---|---|
| Viscosity, kinematic | 3.1 mm ² /s Temp.: '20°C' Parameter: 'kinematic viscosity (in mm ² /s)' |

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified (Based on available data, the classification criteria are not met)
Hazardous to the aquatic environment, long-term (chronic) : Not classified (Based on available data, the classification criteria are not met)
Not rapidly degradable

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| xylene (1330-20-7) | |
|--|--|
| LC50 - Fish [1] | 2.6 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) |
| EC50 - Crustacea [1] | > 3.4 mg/l Test organisms (species): Ceriodaphnia dubia |
| NOEC chronic fish | > 1.3 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '56 d' |
| butan-1-ol; n-butanol (71-36-3) | |
| LC50 - Fish [1] | 1376 mg/l Source: ECHA |
| EC50 - Crustacea [1] | 1983 mg/l Source: ECHA |
| EC50 96h - Algae [1] | 225 mg/l Source: ECHA |
| NOEC (chronic) | 4.1 mg/l Test organisms (species): Daphnia magna Duration: '21 d' |
| Amines, polyethylenepoly-, triethylenetetramine fraction (90640-67-8) | |
| LC50 - Fish [1] | 330 mg/l Source: ECHA Chem |
| EC50 - Crustacea [1] | 31.1 mg/l Source: ECHA Chem |
| EC50 72h - Algae [1] | 20 mg/l Source: ECHA Chem |
| N-(3-(trimethoxysilyl)propyl)ethylenediamine (1760-24-3) | |
| LC50 - Fish [1] | 597 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) |
| EC50 - Crustacea [1] | 81 mg/l Test organisms (species): Daphnia magna |
| EC50 72h - Algae [1] | 126 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) |
| EC50 72h - Algae [2] | 352 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) |
| ErC50 algae | 8.8 mg/l Source: OECD Guide-line 201,SIDS |
| Amines, C12-14-tert-alkyl, bis[2-[(4,5-dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)azo]benzoato(2-)]chromate(1-) (85408-46-4) | |
| LC50 - Fish [1] | 10 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) |

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

| butan-1-ol; n-butanol (71-36-3) | |
|--|------------------------|
| Partition coefficient n-octanol/water (Log Pow) | 0.9 Source: HSDB |
| Amines, polyethylenepoly-, triethylenetetramine fraction (90640-67-8) | |
| Partition coefficient n-octanol/water (Log Pow) | 2.65 Source: ECHA Chem |
| N-(3-(trimethoxysilyl)propyl)ethylenediamine (1760-24-3) | |
| Partition coefficient n-octanol/water (Log Pow) | -1.67 |

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

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12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

| | |
|--|---|
| Regional legislation (waste) | : Disposal must be done according to official regulations. |
| Waste treatment methods | : Dispose of contents/container in accordance with licensed collector's sorting instructions. |
| Sewage disposal recommendations | : Do not discharge into drains. |
| Product/Packaging disposal recommendations | : This material and its container must be disposed of as hazardous waste. Do not dispose of with domestic waste. After cleaning, recycle or dispose of at an authorised site. |
| Additional information | : Flammable vapours may accumulate in the container. |
| European List of Waste (LoW) code | : 08 01 11* - waste paint and varnish containing organic solvents or other dangerous substances 15 01 10* - packaging containing residues of or contaminated by dangerous substances |

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

| ADR | IMDG | IATA |
|--|--|---|
| 14.1. UN number or ID number | | |
| UN 1866 | UN 1866 | UN 1866 |
| 14.2. UN proper shipping name | | |
| RESIN SOLUTION | RESIN SOLUTION | Resin solution |
| Transport document description | | |
| UN 1866 RESIN SOLUTION, 3, III, (D/E), ENVIRONMENTALLY HAZARDOUS | UN 1866 RESIN SOLUTION, 3, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS (25°C c.c.) | UN 1866 Resin solution, 3, III, ENVIRONMENTALLY HAZARDOUS |
| 14.3. Transport hazard class(es) | | |
| 3 | 3 | 3 |
| | | |
| 14.4. Packing group | | |
| III | III | III |
| 14.5. Environmental hazards | | |
| Dangerous for the environment: Yes | Dangerous for the environment: Yes Marine pollutant: Yes | Dangerous for the environment: Yes |
| No supplementary information available | | |

14.6. Special precautions for user

Overland transport

| | |
|----------------------------------|-------|
| Classification code (ADR) | : F1 |
| Limited quantities (ADR) | : 5I |
| Special packing provisions (ADR) | : PP1 |

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Mixed packing provisions (ADR) : MP19
Transport category (ADR) : 3
Special provisions for carriage - Packages (ADR) : V12

Tunnel restriction code (ADR) : D/E
EAC code : •3Y

Transport by sea

Special provisions (IMDG) : 223, 955
Limited quantities (IMDG) : 5 L
Special packing provisions (IMDG) : PP1
EmS-No. (Fire) : F-E
EmS-No. (Spillage) : S-E
Stowage category (IMDG) : A

Air transport

No data available

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

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SECTION 16: Other information

Indication of changes:

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| Abbreviations and acronyms: | |
|-----------------------------|---|
| ADN | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| ATE | Acute Toxicity Estimate |
| BCF | Bioconcentration factor |
| BLV | Biological limit value |
| BOD | Biochemical oxygen demand (BOD) |
| COD | Chemical oxygen demand (COD) |
| DMEL | Derived Minimal Effect level |
| DNEL | Derived-No Effect Level |
| EC-No. | European Community number |
| EC50 | Median effective concentration |
| EN | European Standard |
| IARC | International Agency for Research on Cancer |
| IATA | International Air Transport Association |
| IMDG | International Maritime Dangerous Goods |
| LC50 | Median lethal concentration |
| LD50 | Median lethal dose |
| LOAEL | Lowest Observed Adverse Effect Level |
| NOAEC | No-Observed Adverse Effect Concentration |
| NOAEL | No-Observed Adverse Effect Level |
| NOEC | No-Observed Effect Concentration |
| OECD | Organisation for Economic Co-operation and Development |
| OEL | Occupational Exposure Limit |
| PBT | Persistent Bioaccumulative Toxic |
| PNEC | Predicted No-Effect Concentration |
| RID | Regulations concerning the International Carriage of Dangerous Goods by Rail |
| SDS | Safety Data Sheet |
| STP | Sewage treatment plant |
| ThOD | Theoretical oxygen demand (ThOD) |
| TLM | Median Tolerance Limit |
| VOC | Volatile Organic Compounds |
| CAS-No. | Chemical Abstract Service number |
| N.O.S. | Not Otherwise Specified |
| vPvB | Very Persistent and Very Bioaccumulative |
| ED | Endocrine disrupting properties |

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Data sources : ECHA (European Chemicals Agency).
Training advice : Handle in accordance with good industrial hygiene and safety procedures.

| Full text of H- and EUH-statements: | |
|-------------------------------------|--|
| Acute Tox. 3 (Dermal) | Acute toxicity (dermal), Category 3 |
| Acute Tox. 3 (Inhalation) | Acute toxicity (inhal.), Category 3 |
| Acute Tox. 3 (Oral) | Acute toxicity (oral), Category 3 |
| Acute Tox. 4 (Dermal) | Acute toxicity (dermal), Category 4 |
| Acute Tox. 4 (Inhalation) | Acute toxicity (inhal.), Category 4 |
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4 |
| Aquatic Chronic 2 | Hazardous to the aquatic environment – Chronic Hazard, Category 2 |
| Aquatic Chronic 3 | Hazardous to the aquatic environment – Chronic Hazard, Category 3 |
| Eye Dam. 1 | Serious eye damage/eye irritation, Category 1 |
| Flam. Liq. 2 | Flammable liquids, Category 2 |
| Flam. Liq. 3 | Flammable liquids, Category 3 |
| H225 | Highly flammable liquid and vapour. |
| H226 | Flammable liquid and vapour. |
| H301 | Toxic if swallowed. |
| H302 | Harmful if swallowed. |
| H311 | Toxic in contact with skin. |
| 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. |
| H331 | Toxic if inhaled. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |
| H370 | Causes damage to organs. |
| H371 | May cause damage to organs. |
| H411 | Toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |
| Skin Corr. 1 | Skin corrosion/irritation, Category 1 |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| Skin Sens. 1 | Skin sensitisation, Category 1 |
| Skin Sens. 1A | Skin sensitisation, category 1A |
| STOT SE 1 | Specific target organ toxicity – single exposure, Category 1 |
| STOT SE 2 | Specific target organ toxicity – Single exposure, Category 2 |
| STOT SE 3 | Specific target organ toxicity – Single exposure, Category 3, Narcosis |

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| Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]: | | |
|--|------|-----------------------|
| Flam. Liq. 3 | H226 | On basis of test data |
| Skin Irrit. 2 | H315 | Calculation method |
| Eye Dam. 1 | H318 | Calculation method |
| Skin Sens. 1 | H317 | Calculation method |

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.