# SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

## NEXLER EPOLIS EP 603 składnik B

| | | | |
|---|---|---|---|
| Creation date | 14th February 2023 | | |
| Revision date | | Version | 1.0 |

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

**1.1. Product identifier** — NEXLER EPOLIS EP 603 składnik B

Substance / mixture: mixture

UFI: 93P6-R0H6-9001-A04E

Other mixture names

NEXLER EPOLIS EP 603 pion składnik A
NEXLER EPOLIS EP 603 poziom składnik A

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

**Mixture's intended use**

Three-component (EP 603 pion) / Two-component (EP 603 poziom), flexible epoxy sealant used indoors and outdoors to fill expansion joints from 5 to 30 mm as well as scratches and cracks on vertical (EP 603 pion) / horizontal (EP 603 poziom) surfaces.

**Main intended use**

| | |
|---|---|
| PC-ADH-8 | Multi-component adhesives and sealants |

**Secondary uses**

| | |
|---|---|
| PC-ADH-2 | Adhesives and sealants - building and construction works (except cement based adhesives) |

**Mixture uses advised against**

The product should not be used in ways other then those referred in Section 1.

**1.3. Details of the supplier of the safety data sheet**

**Supplier**

| | |
|---|---|
| Name or trade name | IZOHAN sp. z o.o. |
| Address | Łużycka 2, Gdynia, 81-963<br>Poland |
| Identification number (CRN) | 191528483 |
| VAT Reg No | PL5862073821 |
| Phone | +48 58 781 45 85 |
| E-mail | info@izohan.eu |
| Web address | www.izohan.eu |

**Competent person responsible for the safety data sheet**

| | |
|---|---|
| Name | IZOHAN sp. z o.o. |
| E-mail | info@izohan.eu |

**1.4. Emergency telephone number**

National Health Service (NHS) 111
National poisoning information centre Scotland, NHS 24: 111

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**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification of the mixture in accordance with Regulation (EC) No 1272/2008**

The mixture is classified as dangerous.

Acute Tox. 4, H302
Skin Corr. 1A, H314
Skin Sens. 1, H317
Eye Dam. 1, H318
Aquatic Acute 1, H400
Aquatic Chronic 1, H410

Full text of all classifications and hazard statements is given in the section 16.

**Most serious adverse effects on human health and the environment**

Causes serious eye damage. May cause an allergic skin reaction. Causes severe skin burns and eye damage. Harmful if swallowed. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

### 2.2. Label elements

**Hazard pictogram**

**Signal word**

Danger

**Hazardous substances**

Polyoxypropylenediamine
Phenol, styrenated
2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
Amines, C12-18-(even numbered) and C18-(unsaturated) alkyl

**Hazard statements**

| | |
|---|---|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H410 | Very toxic to aquatic life with long lasting effects. |

**Precautionary statements**

| | |
|---|---|
| P101 | If medical advice is needed, have product container or label at hand. |
| P102 | Keep out of reach of children. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| 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 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. |
| P310 | Immediately call a doctor. |
| P391 | Collect spillage. |
| P501 | Dispose of contents/container to according to the instructions of the manufacturer or person authorized to dispose of waste. |

**Requirements for child-resistant fastenings and tactile warning of danger**

Container must carry a tactile warning of danger. Container must be fitted with child-resistant fastening.

### 2.3. Other hazards

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605. Mixture does not contain any substance meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

**Mixture contains these hazardous substances and substances with the highest permissible concentration in the working environment**

| Identification numbers | Substance name | Content in % weight | Classification according to Regulation (EC) No 1272/2008 | Note |
|---|---|---|---|---|
| CAS: 9046-10-0<br>Registration number:<br>- [REACH art. 2 (9)] | Polyoxypropylenediamine | 30-<50 | Acute Tox. 4, H302<br>Skin Corr. 1B, H314<br>Eye Dam. 1, H318<br>Aquatic Chronic 3, H412 | |
| CAS: 61788-44-1<br>EC: 262-975-0<br>Registration number:<br>01-2119979575-18 | Phenol, styrenated | 25-<30 | Skin Irrit. 2, H315<br>Skin Sens. 1A, H317<br>Aquatic Acute 1, H400<br>Aquatic Chronic 2, H411 | 1 |

| Identification numbers | Substance name | Content in % weight | Classification according to Regulation (EC) No 1272/2008 | Note |
|---|---|---|---|---|
| CAS: 25513-64-8<br>EC: 247-063-2<br>Registration number: 01-2119560598-25 | 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine | 5-<10 | Acute Tox. 4, H302<br>Skin Corr. 1A, H314<br>Skin Sens. 1A, H317<br>Eye Dam. 1, H318 | |
| CAS: 2156592-58-2<br>EC: 701-068-0<br>Registration number: 01-2119473798-17 | Amines, C12-18-(even numbered) and C18-(unsaturated) alkyl | 5-<10 | Acute Tox. 4, H302<br>Asp. Tox. 1, H304<br>Skin Corr. 1B, H314<br>STOT SE 3, H335<br>STOT RE 2, H373 (ingestion)<br>Aquatic Acute 1, H400 (M=10)<br>Aquatic Chronic 1, H410 (M=10) | 1 |
| Index: 603-069-00-0<br>CAS: 90-72-2<br>EC: 202-013-9<br>Registration number: 01-2119560597-27 | 2,4,6-tris(dimethylaminomethyl)phenol | 3-<5 | Acute Tox. 4, H302<br>Skin Corr. 1C, H314<br>Eye Dam. 1, H318 | |

**Notes**

1 Substance of unknown or variable composition, complex reaction products or biological materials - UVCB.

Full text of all classifications and hazard statements is given in the section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

Take care of your own safety. If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet. If unconscious, put the person in the stabilized (recovery) position on his side with his head slightly bent backwards and make sure that airways are free; never induce vomiting. If the person vomits by himself, make sure that the vomit is not inhaled. In life threatening conditions first of all provide resuscitation of the affected person and ensure medical assistance. Respiratory arrest - provide artificial respiration immediately. Cardiac arrest - provide indirect cardiac massage immediately.

**If inhaled**

Take care of your own safety, do not let the affected person walk! Terminate the exposure immediately; move the affected person to fresh air. Beware of the contaminated clothes. Depending on the situation, call the medical rescue service and ensure medical treatment considering the frequent need of further observation for at least 24 hours.

**If on skin**

Remove contaminated clothes. Take off any rings, watches, bracelets before or during washing if worn in the contaminated areas of the skin. Depending on the situation, call the medical rescue service and always ensure medical treatment. Rinse contaminated areas with a flow of water, lukewarm at best, for 10-30 minutes; do not use any brush, soap or neutralizers. Rinse skin with water or shower. Rinse cautiously with water for several minutes.

**If in eyes**

Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. No neutralization should be performed in any case! Rinsing should be continued for 10-30 minutes from the inner to the outer eye corner to make sure that the other eye is not involved. Depending on the situation, call medical rescue service or ensure medical treatment as promptly as possible. Everyone must be referred for treatment even if affected only a little.

**If swallowed**

RINSE THE MOUTH WITH WATER IMMEDIATELY AND LET THE PERSON DRINK 2-5 dl of cold water to reduce the heating effect of the corrosive substance. Consuming larger amounts of liquid is not advisable as it may induce vomiting and potential inhaling of the corrosive substances in the lungs. The affected person must not be forced to drink, particularly if already feeling pain in the mouth or throat. In this case let the affected person only rinse the mouth with water. DO NOT PROVIDE ACTIVATED CARBON! Depending on the situation, call medical rescue service or ensure medical treatment as promptly as possible.

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

**If inhaled**

Inhaling vapours can cause corrosion of the breathing system.

**If on skin**

Causes severe skin burns. May cause an allergic skin reaction.

**If in eyes**

Causes serious eye damage.

**If swallowed**

Corrosion of the digestion system can occur.

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

Symptomatic treatment.

## SECTION 5: Firefighting measures

**5.1. Extinguishing media**

**Suitable extinguishing media**

Alcohol-resistant foam, carbon dioxide, powder, water spray jet, water mist.

**Unsuitable extinguishing media**

Water - full jet.

**5.2. Special hazards arising from the substance or mixture**

In the event of fire, carbon monoxide, carbon dioxide and other toxic gases may arise. Inhalation of hazardous degradation (pyrolysis) products may cause serious health damage. As a result of thermal decomposition or reactions with incompatible substances, compounds such as nitric acid, ammonia, nitrogen oxides, aldehydes may be formed. Nitrogen oxides can react with water vapor to form caustic nitric acid.

**5.3. Advice for firefighters**

Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely. Use a self-contained breathing apparatus and full-body protective clothing. Do not allow run-off of contaminated fire extinguishing material to enter drains or surface and ground water.

## SECTION 6: Accidental release measures

**6.1. Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment for work. Follow the instructions in the Sections 7 and 8. Do not inhale mist/vapours/spray. Prevent contact with skin and eyes.

**6.2. Environmental precautions**

Do not allow to enter drains. Prevent contamination of the soil and entering surface or ground water.

**6.3. Methods and material for containment and cleaning up**

Spilled product should be covered with suitable (non-flammable) absorbing material (sand, diatomaceous earth, earth and other suitable absorption materials); to be contained in well closed containers and removed as per the Section 13. In the event of leakage of the substantial amount of the product, inform fire brigade and other competent bodies. After removal of the product, wash the contaminated site with plenty of water. Do not use solvents.

**6.4. Reference to other sections**

See the Section 7, 8 and 13.

## SECTION 7: Handling and storage

**7.1. Precautions for safe handling**

Do not inhale mist/vapours/spray. Prevent contact with skin and eyes. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Wash hands and exposed parts of the body thoroughly after handling. Use personal protective equipment as per Section 8. Observe valid legal regulations on safety and health protection. Avoid release to the environment.

**7.2. Conditions for safe storage, including any incompatibilities**

Store in tightly closed containers in cold, dry and well ventilated areas designated for this purpose. Store locked up.

**7.3. Specific end use(s)**

not available

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

The mixture contains no substances for which occupational exposure limits are set.

**DNEL**

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine

| Workers / consumers | Route of exposure | Value | Effect | Value determination | Source |
|---|---|---|---|---|---|
| Consumers | Oral | 0.05 mg/kg bw/day | Systemic chronic effects | | |

2,4,6-tris(dimethylaminomethyl)phenol

| Workers / consumers | Route of exposure | Value | Effect | Value determination | Source |
|---|---|---|---|---|---|
| Workers | Inhalation | 0.53 mg/m³ | Systemic chronic effects | | |
| Workers | Inhalation | 2.1 mg/m³ | Systemic acute effects | | |
| Workers | Dermal | 0.15 mg/kg bw/day | Systemic chronic effects | | |
| Workers | Dermal | 0.6 mg/kg bw/day | Systemic acute effects | | |
| Consumers | Inhalation | 0.13 mg/m³ | Systemic chronic effects | | |
| Consumers | Inhalation | 0.13 mg/m³ | Systemic acute effects | | |
| Consumers | Dermal | 0.075 mg/kg bw/day | Systemic chronic effects | | |
| Consumers | Dermal | 0.075 mg/kg bw/day | Systemic acute effects | | |
| Consumers | Oral | 0.075 mg/kg bw/day | Systemic chronic effects | | |

Amines, C12-18-(even numbered) and C18-(unsaturated) alkyl

| Workers / consumers | Route of exposure | Value | Effect | Value determination | Source |
|---|---|---|---|---|---|
| Consumers | Oral | 0.04 mg/kg bw/day | Systemic chronic effects | | |
| Workers | Inhalation | 0.38 mg/m³ | Systemic chronic effects | | |
| Workers | Inhalation | 1 mg/m³ | Local chronic effects | | |
| Workers | Inhalation | 1 mg/m³ | Local acute effects | | |
| Consumers | Inhalation | 0.035 mg/m³ | Systemic chronic effects | | |

Phenol, styrenated

| Workers / consumers | Route of exposure | Value | Effect | Value determination | Source |
|---|---|---|---|---|---|
| Workers | Inhalation | 7.4 mg/m³ | Systemic chronic effects | | |
| Workers | Dermal | 2.1 mg/kg bw/day | Systemic chronic effects | | |
| Consumers | Inhalation | 1.31 mg/m³ | Systemic chronic effects | | |
| Consumers | Dermal | 0.75 mg/kg bw/day | Systemic chronic effects | | |
| Consumers | Oral | 0.75 mg/kg bw/day | Systemic chronic effects | | |

**PNEC**

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine

| Route of exposure | Value | Value determination | Source |
|---|---|---|---|
| Drinking water | 0.102 mg/l | | |
| Water (intermittent release) | 0.315 mg/l | | |
| Seawater | 0.01 mg/l | | |
| Microorganisms in wastewater treatment plants | 72 mg/l | | |
| Freshwater sediment | 0.622 mg/kg of dry substance of sediment | | |
| Sea sediments | 0.062 mg/kg of dry substance of sediment | | |
| Soil (agricultural) | 10 mg/kg of dry substance of soil | | |

2,4,6-tris(dimethylaminomethyl)phenol

| Route of exposure | Value | Value determination | Source |
|---|---|---|---|
| Drinking water | 0.046 mg/l | | |
| Seawater | 0.005 mg/l | | |
| Water (intermittent release) | 0.46 mg/l | | |
| Microorganisms in wastewater treatment plants | 0.2 mg/l | | |
| Freshwater sediment | 0.262 mg/kg of dry substance of sediment | | |
| Sea sediments | 0.026 mg/kg of dry substance of sediment | | |
| Soil (agricultural) | 0.025 mg/kg of dry substance of soil | | |

Amines, C12-18-(even numbered) and C18-(unsaturated) alkyl

| Route of exposure | Value | Value determination | Source |
|---|---|---|---|
| Drinking water | 0.26 µg/l | | |
| Seawater | 0.026 µg/l | | |
| Microorganisms in wastewater treatment plants | 550 µg/l | | |
| Freshwater sediment | 3.76 mg/kg of dry substance of sediment | | |
| Sea sediments | 0.376 mg/kg of dry substance of sediment | | |
| Soil (agricultural) | 10 mg/kg of dry substance of soil | | |
| Water (intermittent release) | 1.6 µg/l | | |

Phenol, styrenated

| Route of exposure | Value | Value determination | Source |
|---|---|---|---|
| Drinking water | 4 µg/l | | |
| Water (intermittent release) | 46 µg/l | | |

Phenol, styrenated

| Route of exposure | Value | Value determination | Source |
|---|---|---|---|
| Seawater | 0.4 µg/l | | |
| Microorganisms in wastewater treatment plants | 36.2 mg/l | | |
| Freshwater sediment | 0.248 mg/kg of dry substance of sediment | | |
| Sea sediments | 0.0248 mg/kg of dry substance of sediment | | |
| Soil (agricultural) | 0.0473 mg/kg of dry substance of sediment | | |

**8.2. Exposure controls**

Follow the usual measures intended for health protection at work and especially for good ventilation. This can be achieved only by local suction or efficient general ventilation. Do not eat, drink and smoke during work. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

**Eye/face protection**

Protective goggles or face shield (based on the nature of the work performed).

**Skin protection**

Hand protection: Protective gloves resistant to the product. When choosing appropriate thickness, material and permeability of the gloves, observe recommendations of their particular manufacturer. Observe other recommendations of the manufacturer. Other protection: protective workwear. Contaminated skin should be washed thoroughly.

**Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

**Thermal hazard**

Data not available.

**Environmental exposure controls**

Observe usual measures for protection of the environment, see Section 6.2. Collect spillage.

## SECTION 9: Physical and chemical properties

**9.1. Information on basic physical and chemical properties**

| | |
|---|---|
| Physical state | liquid |
| Colour | straw colored |
| Odour | amine |
| Melting point/freezing point | <-20 °C |
| Boiling point or initial boiling point and boiling range | >120 °C |
| Flammability | The product is non-flammable. |
| Lower and upper explosion limit | not applicable |
| Flash point | >100 °C |
| Auto-ignition temperature | not determined |
| Amines, C12-18-(even numbered) and C18-(unsaturated) alkyl (CAS: 2156592-58-2) | 255 °C |
| Decomposition temperature | >120 °C |
| pH | 11-12 (10% solution at 22 °C) |
| Kinematic viscosity | 300-500 mm²/s at 22 °C |
| Solubility in water | partially soluble |
| Partition coefficient n-octanol/water (log value) | does not apply to mixtures |
| Vapour pressure | not determined |
| 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine (CAS: 25513-64-8) | 0,04 hPa at 20 °C |
| Density and/or relative density | |
| Density | 0,99 g/cm³ at 22 °C |

| | |
|---|---|
| Relative vapour density | >1 |
| Particle characteristics | applies to solids |

**9.2. Other information**

not available

## SECTION 10: Stability and reactivity

**10.1. Reactivity**

Reacts with peroxides, aldehydes, ketones, epoxy resins.

**10.2. Chemical stability**

The product is stable under normal conditions.

**10.3. Possibility of hazardous reactions**

Unknown.

**10.4. Conditions to avoid**

The product is stable and no degradation occurs under normal use. Protect against flames, sparks, overheating and against frost.

**10.5. Incompatible materials**

Reactive metals (e.g. sodium, calcium, zinc, etc.). Substances which react with hydroxyl compounds. Mineral Acids. Organic acids (i.e. acetic acid, citric acid etc.). Sodium hypochlorite. Oxidizing agents, reaction with peroxides may cause rapid decomposition of the peroxide with the possibility of an explosion.

**10.6. Hazardous decomposition products**

Not developed under normal uses. As a result of thermal decomposition or reactions with incompatible substances, compounds such as nitric acid, ammonia, nitrogen oxides, carbon oxides, aldehydes may be formed. Nitrogen oxides can react with water vapor to form caustic nitric acid.

## SECTION 11: Toxicological information

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

No toxicological data is available for the mixture.

**Acute toxicity**

Harmful if swallowed.

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine

| Route of exposure | Parameter | Method | Value | Exposure time | Species | Sex |
|---|---|---|---|---|---|---|
| Oral | $LD_{50}$ | | 910 mg/kg bw | | Rat (Rattus norvegicus) | M |

2,4,6-tris(dimethylaminomethyl)phenol

| Route of exposure | Parameter | Method | Value | Exposure time | Species | Sex |
|---|---|---|---|---|---|---|
| Dermal | $LD_{50}$ | | >1 ml/kg bw | 6 hour | Rat (Rattus norvegicus) | M |
| Oral | $LD_{50}$ | OECD 401 | 2169 mg/kg bw | | Rat (Rattus norvegicus) | F/M |

Amines, C12-18-(even numbered) and C18-(unsaturated) alkyl

| Route of exposure | Parameter | Method | Value | Exposure time | Species | Sex |
|---|---|---|---|---|---|---|
| Dermal | $LD_{50}$ | OECD 402 | >2000 mg/kg bw | | Rat (Rattus norvegicus) | F/M |
| Oral | $LD_{50}$ | OECD 401 | 1300 mg/kg bw | | Rat (Rattus norvegicus) | F/M |

Phenol, styrenated

| Route of exposure | Parameter | Method | Value | Exposure time | Species | Sex |
|---|---|---|---|---|---|---|
| Dermal | $LD_{50}$ | OECD 402 | >2000 mg/kg bw | 24 hour | Rat (Rattus norvegicus) | F/M |
| Oral | $LD_{50}$ | OECD 423 | >2000 mg/kg bw | | Rat (Rattus norvegicus) | F |

Polyoxypropylenediamine

| Route of exposure | Parameter | Method | Value | Exposure time | Species | Sex |
|---|---|---|---|---|---|---|
| Dermal | $LD_{50}$ | | 2085.8 mg/kg bw | | Rabbit | |
| Inhalation (vapor) | $LC_{50}$ | OECD 403 | >0.74 mg/l | 8 hour | Rat (Rattus norvegicus) | F/M |

**Irritation**

Amines, C12-18-(even numbered) and C18-(unsaturated) alkyl

| Route of exposure | Result | Exposure time | Species |
|---|---|---|---|
| Inhalation | Irritating | | |

**Skin corrosion/irritation**

Causes severe skin burns and eye damage.

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine

| Route of exposure | Result | Method | Exposure time | Species |
|---|---|---|---|---|
| Dermal | Corrosive | OECD 404 | | Rabbit |

2,4,6-tris(dimethylaminomethyl)phenol

| Route of exposure | Result | Method | Exposure time | Species |
|---|---|---|---|---|
| Dermal | Corrosive | OECD 435 | | |

Amines, C12-18-(even numbered) and C18-(unsaturated) alkyl

| Route of exposure | Result | Method | Exposure time | Species |
|---|---|---|---|---|
| Dermal | Corrosive | OECD 404 | 1 hour | Rabbit |

Polyoxypropylenediamine

| Route of exposure | Result | Method | Exposure time | Species |
|---|---|---|---|---|
| Dermal | Corrosive | OECD 404 | 1 hour | Rabbit |

**Serious eye damage/irritation**

Causes serious eye damage. Causes severe skin burns and eye damage.

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine

| Route of exposure | Result | Method | Exposure time | Species |
|---|---|---|---|---|
| Eye | Corrosive | OECD 405 | | Rabbit |

2,4,6-tris(dimethylaminomethyl)phenol

| Route of exposure | Result | Method | Exposure time | Species |
|---|---|---|---|---|
| Eye | Corrosive | | | |

Amines, C12-18-(even numbered) and C18-(unsaturated) alkyl

| Route of exposure | Result | Method | Exposure time | Species |
|---|---|---|---|---|
| Eye | Highly irritating | OECD 405 | 24 hour | Rabbit |

Polyoxypropylenediamine

| Route of exposure | Result | Method | Exposure time | Species |
|---|---|---|---|---|
| | Serious eye damage | | | Rabbit |

**Respiratory or skin sensitisation**

May cause an allergic skin reaction.

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine

| Route of exposure | Result | Method | Exposure time | Species | Sex |
|---|---|---|---|---|---|
| Dermal | Sensitizing | OECD 406 | | Guinea-pig (Cavia aperea f. porcellus) | F |

Phenol, styrenated

| Route of exposure | Result | Method | Exposure time | Species | Sex |
|---|---|---|---|---|---|
| Dermal | Sensitizing | OECD 429 | | Mouse | |

**Germ cell mutagenicity**

Based on available data the classification criteria are not met.

**Carcinogenicity**

Based on available data the classification criteria are not met.

**Reproductive toxicity**

Based on available data the classification criteria are not met.

**Toxicity for specific target organ - single exposure**

Based on available data the classification criteria are not met.

**Toxicity for specific target organ - repeated exposure**

Based on available data the classification criteria are not met.

**Repeated dose toxicity**

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine

| Route of exposure | Parameter | Result | Method | Value | Exposure time | Species | Sex |
|---|---|---|---|---|---|---|---|
| Oral | LOAEL | | | 60 mg/kg bw/day | 13 week | Rat (Rattus norvegicus) | F/M |
| Oral | NOAEL | | | 10 mg/kg bw/day | 13 week | Rat (Rattus norvegicus) | F/M |

2,4,6-tris(dimethylaminomethyl)phenol

| Route of exposure | Parameter | Result | Method | Value | Exposure time | Species | Sex |
|---|---|---|---|---|---|---|---|
| Oral | NOAEL | Systemic effects | OECD 422 | 15 mg/kg bw/day | 54 day | Rat (Rattus norvegicus) | F/M |

Amines, C12-18-(even numbered) and C18-(unsaturated) alkyl

| Route of exposure | Parameter | Result | Method | Value | Exposure time | Species | Sex |
|---|---|---|---|---|---|---|---|
| Oral | NOAEL | Systemic effects | OECD 407 | 3.25 mg/kg bw/day | 29 day | Rat (Rattus norvegicus) | F/M |

Phenol, styrenated

| Route of exposure | Parameter | Result | Method | Value | Exposure time | Species | Sex |
|---|---|---|---|---|---|---|---|
| Oral | NOAEL | Systemic effects | | 150 mg/kg bw/day | 36 week | Rat (Rattus norvegicus) | F/M |

Polyoxypropylenediamine

| Route of exposure | Parameter | Result | Method | Value | Exposure time | Species | Sex |
|---|---|---|---|---|---|---|---|
| | NOAEL | | OECD 411 | 250 mg/kg bw | | Rat (Rattus norvegicus) | F/M |

**Aspiration hazard**

Based on available data the classification criteria are not met.

**11.2. Information on other hazards**

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

## SECTION 12: Ecological information

**12.1. Toxicity**

**Acute toxicity**

Very toxic to aquatic life with long lasting effects.

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine

| Parameter | Method | Value | Exposure time | Species | Environment |
|---|---|---|---|---|---|
| $LC_{50}$ | | 174 mg/l | 48 hour | Fishes (Leuciscus idus) | |
| $EC_{50}$ | | 31.5 mg/l | 24 hour | Aquatic invertebrates (Daphnia magna) | |
| $ErC_{50}$ | OECD 201 | 43.5 mg/l | 72 hour | Algae (Selenastrum capricornutum) | |
| LOEC | OECD 201 | 40 mg/l | 72 hour | Algae (Selenastrum capricornutum) | |
| NOEC | OECD 201 | 16 mg/l | 72 hour | Algae (Selenastrum capricornutum) | |
| $EC_{50}$ | | 89 mg/l | 17 hour | Aquatic microorganisms (Pseudomonas putida) | |
| NOEC | OECD 216 | 1000 mg/kg of dry substance of soil | 28 day | Microorganisms | Activated sludge |

2,4,6-tris(dimethylaminomethyl)phenol

| Parameter | Method | Value | Exposure time | Species | Environment |
|---|---|---|---|---|---|
| $LC_{50}$ | | 175 mg/l | 96 hour | Fishes (Cyprinus carpio) | |
| $EC_{50}$ | | 718 mg/l | 96 hour | Aquatic invertebrates (Palaeomonetes vulgaris) | |
| $ErC_{50}$ | OECD 201 | 46.7 mg/l | 72 hour | Algae (Selenastrum capricornutum) | |
| NOEC | OECD 201 | 25.1 mg/l | 72 hour | Algae (Selenastrum capricornutum) | |

Amines, C12-18-(even numbered) and C18-(unsaturated) alkyl

| Parameter | Method | Value | Exposure time | Species | Environment |
|---|---|---|---|---|---|
| $LC_{50}$ | OECD 203 | 0.84 mg/l | 96 hour | Fishes (Danio rerio) | |
| $EC_{50}$ | OECD 202 | 0.32 mg/l | 48 hour | Aquatic invertebrates (Daphnia magna) | |
| EbC50 | OECD 201 | 0.08 mg/l | 72 hour | Algae (Selenastrum capricornutum) | |
| $ErC_{50}$ | OECD 201 | 0.16 mg/l | 72 hour | Algae (Selenastrum capricornutum) | |
| $EC_{50}$ | OECD 209 | 14 mg/l | 3 hour | Aquatic microorganisms | Activated sludge |
| $LC_{50}$ | OECD 207 | >1000 mg/kg of dry substance of soil | 14 day | Invertebrates (Eisenia fetida) | |

Phenol, styrenated

| Parameter | Method | Value | Exposure time | Species | Environment |
|---|---|---|---|---|---|
| $LC_{50}$ | | 5.6 mg/l | 96 hour | Fishes (Danio rerio) | |
| EL 50 | OECD 201 | 20.42 mg/l | 72 hour | Algae (Selenastrum capricornutum) | |
| $EC_{50}$ | | 362 mg/l | 3 hour | Aquatic microorganisms | Activated sludge |

Phenol, styrenated

| Parameter | Method | Value | Exposure time | Species | Environment |
|---|---|---|---|---|---|
| $EC_{50}$ | OECD 202 | 4.6 mg/l | 48 hour | Aquatic invertebrates (Daphnia magna) | |

Polyoxypropylenediamine

| Parameter | Method | Value | Exposure time | Species | Environment |
|---|---|---|---|---|---|
| $LC_{50}$ | | 600 mg/l | 96 hour | Fishes (Cyprinodon variegatus) | |
| $EC_{50}$ | OECD 202 | 80 mg/l | 48 hour | Aquatic invertebrates (Daphnia magna) | |
| $EC_{50}$ | OECD 201 | 15 mg/l | 72 hour | Algae (Selenastrum capricornutum) | |
| $EC_{50}$ | OECD 209 | 750 mg/l | | Aquatic microorganisms | Activated sludge |

**Chronic toxicity**

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine

| Parameter | Method | Value | Exposure time | Species | Environment |
|---|---|---|---|---|---|
| NOEC | OECD 210 | ≥10.9 mg/l | 30 day | Fishes (Danio rerio) | |
| NOEC | OECD 211 | 1.02 mg/l | 21 day | Aquatic invertebrates (Daphnia magna) | |
| NOEC | OECD 222 | ≥1000 mg/kg of dry substance of soil | 56 day | Invertebrates (Eisenia fetida) | |

2,4,6-tris(dimethylaminomethyl)phenol

| Parameter | Method | Value | Exposure time | Species | Environment |
|---|---|---|---|---|---|
| NOEC | | 2 mg/l | 28 day | Aquatic microorganisms | Activated sludge |

Amines, C12-18-(even numbered) and C18-(unsaturated) alkyl

| Parameter | Method | Value | Exposure time | Species | Environment |
|---|---|---|---|---|---|
| NOEC | OECD 222 | 200 mg/kg of dry substance of soil | 8 week | Invertebrates (Eisenia fetida) | |
| NOEC | OECD 211 | 0.013 mg/l | 21 day | Aquatic invertebrates (Daphnia magna) | |

Phenol, styrenated

| Parameter | Method | Value | Exposure time | Species | Environment |
|---|---|---|---|---|---|
| NOEC | OECD 210 | 0.2 mg/l | 96 hour | Fishes (Danio rerio) | |
| NOEC | | 0.2 mg/l | 21 day | Aquatic invertebrates (Daphnia magna) | |

**12.2. Persistence and degradability**

**Biodegradability**

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine

| Parameter | Method | Value | Exposure time | Environment | Result |
|---|---|---|---|---|---|
| | | 7 % | 28 day | Activated sludge | Hardly biodegradable |

2,4,6-tris(dimethylaminomethyl)phenol

| Parameter | Method | Value | Exposure time | Environment | Result |
|---|---|---|---|---|---|
| | OECD 301D | 4 % | 28 day | Activated sludge | Hardly biodegradable |

Amines, C12-18-(even numbered) and C18-(unsaturated) alkyl

| Parameter | Method | Value | Exposure time | Environment | Result |
|---|---|---|---|---|---|
| | OECD 301B | 62 % | 29 day | Activated sludge | Easily biodegradable |

Phenol, styrenated

| Parameter | Method | Value | Exposure time | Environment | Result |
|---|---|---|---|---|---|
| | OECD 310 | 4 % | 28 day | | Hardly biodegradable |

The product is partially biodegradable.

**12.3. Bioaccumulative potential**

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine

| Parameter | Method | Value | Exposure time | Species | Environment | Temperature [°C] |
|---|---|---|---|---|---|---|
| Log Pow | OECD 117 | -0.3 | | | | 25°C |

2,4,6-tris(dimethylaminomethyl)phenol

| Parameter | Method | Value | Exposure time | Species | Environment | Temperature [°C] |
|---|---|---|---|---|---|---|
| Log Pow | | -0.66 | | | | 21,5°C |

Amines, C12-18-(even numbered) and C18-(unsaturated) alkyl

| Parameter | Method | Value | Exposure time | Species | Environment | Temperature [°C] |
|---|---|---|---|---|---|---|
| BCF | | 173 | | Fishes | | |
| Log Pow | | 4.33 | | | | 25°C |

Phenol, styrenated

| Parameter | Method | Value | Exposure time | Species | Environment | Temperature [°C] |
|---|---|---|---|---|---|---|
| Log Pow | OECD 117 | 3.03 | | | | 23,6°C |

Bioaccumulation is not expected.

**12.4. Mobility in soil**

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine

| Parameter | Value | Environment | Temperature | Value determination |
|---|---|---|---|---|
| Koc | 25 | | 20°C | QSAR |

Phenol, styrenated

| Parameter | Value | Environment | Temperature | Value determination |
|---|---|---|---|---|
| Koc | 584.7 | | 25°C | |

The product is soluble and mobile in water and soil. Contamination of water courses may occur in the event of rain.

**12.5. Results of PBT and vPvB assessment**

Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

**12.6. Endocrine disrupting properties**

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

**12.7. Other adverse effects**

Data not available.

## SECTION 13: Disposal considerations

**13.1. Waste treatment methods**

Danger of environmental contamination, follow the applicable waste disposal regulations. Store unused product and contaminated packaging in closed containers for waste collection and hand over for disposal to a specialized company authorized to conduct such activity. Do not pour unused product into drains. It must not be disposed of together with municipal waste. Empty packaging can be used for energy in a waste incineration plant or collected in a landfill with an appropriate classification. Perfectly cleaned packaging can be recycled. The classification of waste may change depending on where it is generated.

**Waste management legislation**

Producer Responsibility Obligations (Packaging Waste) Regulations 2007 (S.I. No. 871 of 2007). Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

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**SECTION 14: Transport information**

**14.1. UN number or ID number**

UN 2735

**14.2. UN proper shipping name**

AMINES, LIQUID, CORROSIVE, N.O.S. (contains: polyoxypropylenediamine)

**14.3. Transport hazard class(es)**

8 Corrosive substances

**14.4. Packing group**

II - substances presenting medium danger

**14.5. Environmental hazards**

Yes.

**14.6. Special precautions for user**

Reference in the Sections 4 to 8.

**14.7. Maritime transport in bulk according to IMO instruments**

not relevant

**Additional information**

| | |
|---|---|
| Hazard identification No. | **80** |
| UN number | **2735** |
| Classification code | C7 |
| Safety signs | 8+hazardous for the environment |


**Road transport - ADR**

| | |
|---|---|
| Special provisions | 274 |
| Limited quantities | 1 L |
| Excepted quantities | E2 |
| **Packaging** | |
| Packing instructions | P001, IBC02 |
| Mixed packing provisions | MP15 |
| **Portable tanks and bulk containers** | |
| Guidelines | T11 |
| Special provisions | TP1, TP27 |
| **ADR tank** | |
| Tank code | L4BN |
| Vehicles for tank carriage | AT |
| Transport category | 2 |
| Tunnel restriction code | (E) |

**Railway transport - RID**

| | |
|---|---|
| Special provisions | 274 |
| Excepted quantities | E2 |
| **Packaging** | |
| Packing instructions | P001, IBC02 |
| Mixed packing provisions | MP15 |
| **Portable tanks and bulk containers** | |
| Guidelines | T11 |
| Special provisions | TP1, TP27 |
| **RID Tanks** | |
| Tank code | L4BN |
| Transport category | 0 |

**Air transport - ICAO/IATA**

| | |
|---|---|
| Packaging instructions for limited amount | Y840 |
| Packaging instructions passenger | 851 |
| Cargo packaging instructions | 855 |

**Marine transport - IMDG**

| | |
|---|---|
| EmS (emergency plan) | F-A, S-B |
| MFAG | 320 |

## SECTION 15: Regulatory information

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

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 as amended. Environmental Protection Act 1990 as amended. Clean Air Act 1993 as amended. Public health act 1961. Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16th December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006, as amended.

### 15.2. Chemical safety assessment

A chemical safety assessment has not been carried out (mixture).

## SECTION 16: Other information

**A list of standard risk phrases used in the safety data sheet**

| | |
|---|---|
| H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H335 | May cause respiratory irritation. |
| H373 | May cause damage to organs through prolonged or repeated exposure if swallowed. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H411 | Toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |

**Guidelines for safe handling used in the safety data sheet**

| | |
|---|---|
| P101 | If medical advice is needed, have product container or label at hand. |
| P102 | Keep out of reach of children. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| 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 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. |
| P310 | Immediately call a doctor. |
| P391 | Collect spillage. |
| P501 | Dispose of contents/container to according to the instructions of the manufacturer or person authorized to dispose of waste. |

**Other important information about human health protection**

The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per the Section 1. The user is responsible for adherence to all related health protection regulations.

**Key to abbreviations and acronyms used in the safety data sheet**

| | |
|---|---|
| ADR | European agreement concerning the international carriage of dangerous goods by road |
| BCF | Bioconcentration Factor |
| CAS | Chemical Abstracts Service |
| $CE_{50}$ | Concentration of a substance when it is affected 50% of the population |
| CLP | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures |
| DNEL | Derived no-effect level |
| EINECS | European Inventory of Existing Commercial Chemical Substances |
| $EL_{50}$ | Effective Loading for 50% of the tested organisms |
| EmS | Emergency plan |
| EuPCS | European Product Categorisation System |
| IATA | International Air Transport Association |
| IBC | International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals |
| ICAO | International Civil Aviation Organization |
| IMDG | International Maritime Dangerous Goods |
| INCI | International Nomenclature of Cosmetic Ingredients |
| ISO | International Organization for Standardization |
| IUPAC | International Union of Pure and Applied Chemistry |
| $LC_{50}$ | Lethal concentration of a substance in which it can be expected death of 50% of the population |
| $LD_{50}$ | Lethal dose of a substance in which it can be expected death of 50% of the population |
| LOAEL | Lowest observed adverse effect level |
| log Kow | Octanol-water partition coefficient |
| LZO | Volatile organic compounds |
| MARPOL | International Convention for the Prevention of Pollution from Ships |
| NOAEL | No observed adverse effect level |
| NOEC | No observed effect concentration |
| OEL | Occupational Exposure Limits |
| PBT | Persistent, Bioaccumulative and Toxic |
| PNEC | Predicted no-effect concentration |
| ppm | Parts per million |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals |
| RID | Agreement on the transport of dangerous goods by rail |
| UE | European Union |
| UN | Four-figure identification number of the substance or article taken from the UN Model Regulations |
| UVCB | Substances of unknown or variable composition, complex reaction products or biological materials |
| vPvB | Very Persistent and very Bioaccumulative |
| WE | Identification code for each substance listed in EINECS |

| | |
|---|---|
| Acute Tox. | Acute toxicity |
| Aquatic Acute | Hazardous to the aquatic environment |
| Aquatic Chronic | Hazardous to the aquatic environment (chronic) |

| | |
|---|---|
| Asp. Tox. | Aspiration hazard |
| Eye Dam. | Serious eye damage |
| Skin Corr. | Skin corrosion |
| Skin Irrit. | Skin irritation |
| Skin Sens. | Skin sensitization |
| STOT RE | Specific target organ toxicity - repeated exposure |
| STOT SE | Specific target organ toxicity - single exposure |

**Training guidelines**

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

**Recommended restrictions of use**

not available

**Information about data sources used to compile the Safety Data Sheet**

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended. REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

**More information**

Classification procedure - calculation method.

**Statement**

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.