# STAPA IL HYDROLAN 1580 Aluminium Paste

| Version | Revision Date: | SDS Number: | Print Date: 15.07.2026 |
|---|---|---|---|
| 9.0 | 14.07.2026 | 102000020062 | Date of first issue: 02.01.2014 |

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

### 1.1 Product identifier

Trade name : STAPA IL HYDROLAN 1580 Aluminium Paste

Product code : 053082GD0

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

Use of the Substance/Mixture : Coloring agent

### 1.3 Details of the supplier of the safety data sheet

Company : ECKART GmbH
Guentersthal 4
91235 Hartenstein

Telephone : +499152770

Telefax : +499152777008

E-mail address of person responsible for the SDS : msds.eckart@altana.com

### 1.4 Emergency telephone

NCEC: +44 1235 239670 (Europe)
Call and response in your language is possible.
Contract no.: ECKART29003-NCEC.

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)**

| | |
|---|---|
| Flammable solids, Category 1 | H228: Flammable solid. |
| Eye irritation, Category 2 | H319: Causes serious eye irritation. |
| Specific target organ toxicity - single exposure, Category 3, Central nervous system | H336: May cause drowsiness or dizziness. |

### 2.2 Label elements

**Labeling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)**

Hazard pictograms :

Signal Word : Danger

Hazard Statements :

| | |
|---|---|
| H228 | Flammable solid. |
| H319 | Causes serious eye irritation. |
| H336 | May cause drowsiness or dizziness. |

Precautionary Statements :

**Prevention:**

| | |
|---|---|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P261 | Avoid breathing dust. |
| P280 | Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection. |

**Response:**

| | |
|---|---|
| P304 + P340 + P312 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. |
| P370 + P378 | In case of fire: Use for extinction: Special powder for metal fires. |
| P370 + P378 | In case of fire: Use for extinction: Dry sand. |

**Hazardous ingredients which must be listed on the label:**

propan-2-ol
Solvent naphtha (petroleum), light arom.

**Additional Labeling**

### 2.3 Other hazards

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

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

**Components**

| Chemical name | CAS-No.<br>EC-No.<br>Index-No.<br>Registration number | Classification | Concentration (% w/w) |
|---|---|---|---|
| propan-2-ol | 67-63-0<br>200-661-7<br>603-117-00-0 | Flam. Liq. 2; H225<br>Eye Irrit. 2; H319<br>STOT SE 3; H336 (Central nervous system) | >= 20 - < 25 |

| | | | |
|---|---|---|---|
| ethanol | 64-17-5<br>200-578-6<br>603-002-00-5 | Flam. Liq. 2; H225<br>Eye Irrit. 2; H319 | >= 1 - < 10 |
| Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha | 64742-48-9<br>918-481-9 | Asp. Tox. 1; H304<br>EUH066 | >= 1 - < 10 |
| Solvent naphtha (petroleum), light arom. | 64742-95-6<br>918-668-5 | Flam. Liq. 3; H226<br>STOT SE 3; H336 (Central nervous system)<br>STOT SE 3; H335 (Respiratory system)<br>Asp. Tox. 1; H304<br>Aquatic Chronic 2; H411<br>EUH066 | >= 1 - < 2.5 |
| N-(3-(trimethoxysilyl)propyl)ethylenediamine | 1760-24-3<br>217-164-6 | Eye Dam. 1; H318<br>Skin Sens. 1B; H317<br>STOT SE 3; H335 (Respiratory system) | >= 0.1 - < 1 |
| Substances with a workplace exposure limit : | | | |
| aluminium powder (stabilised) | 7429-90-5<br>231-072-3<br>013-002-00-1 | Flam. Sol. 1; H228<br>Note T | >= 50 - <= 100 |
| silicon dioxide | 7631-86-9<br>231-545-4 | | >= 1 - < 10 |

For explanation of abbreviations see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

General advice : Take the victim into fresh air.

Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.

If inhaled : Consult a physician after significant exposure.
If unconscious, place in recovery position and seek medical

advice.

In case of skin contact : Wash off immediately with soap and plenty of water.

If on skin, rinse well with water.
If on clothes, remove clothes.

In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Keep eye wide open while rinsing.

If swallowed : Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

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

Risks : Causes serious eye irritation.
May cause drowsiness or dizziness.

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

## SECTION 5: Firefighting measures

**5.1 Extinguishing media**

Suitable extinguishing media : Dry sand
Special powder against metal fire

Unsuitable extinguishing media : Carbon dioxide (CO2)
ABC powder
Water
Foam

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

Specific hazards during fire fighting : Contact with water liberates extremely flammable gas (hydrogen).

**5.3 Advice for firefighters**

Special protective equipment for fire-fighters : Use personal protective equipment.

Wear self-contained breathing apparatus for firefighting if necessary.

Further information : Standard procedure for chemical fires.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Evacuate personnel to safe areas.
Use personal protective equipment.
Use personal protective equipment.
Avoid dust formation.
Remove all sources of ignition.

### 6.2 Environmental precautions

Environmental precautions : The product should not be allowed to enter drains, water courses or the soil.

Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

### 6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Use mechanical handling equipment.
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Do not flush with water.
Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For personal protection see section 8.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : Keep away from heat and sources of ignition.
Avoid dust formation.
Ensure adequate ventilation.
Avoid formation of respirable particles.
Do not breathe vapors/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Provide sufficient air exchange and/or exhaust in work rooms.
Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Earthing of containers and apparatuses is essential. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment.

Avoid dust formation. Keep away from open flames, hot sur-

faces and sources of ignition.

Hygiene measures : When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

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

Requirements for storage areas and containers : Store in original container. Keep containers tightly closed in a cool, well-ventilated place. Keep container closed when not in use. Keep away from sources of ignition - No smoking.

No smoking. Keep container tightly closed in a dry and well-ventilated place. Electrical installations / working materials must comply with the technological safety standards.

Further information on storage conditions : Protect from humidity and water. Do not allow to dry.

Advice on common storage : Do not store together with oxidizing and self-igniting products. Never allow product to get in contact with water during storage.
Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

Further information on storage stability : No decomposition if stored and applied as directed.

**7.3 Specific end use(s)**

## SECTION 8: Exposure controls/personal protection

**8.1 Control parameters**

**Occupational Exposure Limits**

| Components | CAS-No. | Value type (Form of exposure) | Control parameters | Basis |
|---|---|---|---|---|
| aluminium powder (stabilised) | 7429-90-5 | TWA (Inhalable) | 10 mg/m3 | GB EH40 |
| | | TWA (Respirable fraction) | 4 mg/m3 | GB EH40 |
| | | TWA (inhalable dust) | 10 mg/m3 | GB EH40 |
| | Further information: For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/4 General methods for sampling and gravimetric analysis or respirable, thoracic and inhalable aerosols., The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed to dust above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limits., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system, and the body response that it elicits, | | | |

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|---|---|---|---|---|
| | depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'., Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/4., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used. | | | |
| | | TWA (Respirable dust) | 4 mg/m3 | GB EH40 |
| | Further information: For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/4 General methods for sampling and gravimetric analysis or respirable, thoracic and inhalable aerosols., The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed to dust above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limits., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system, and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'., Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/4., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used. | | | |
| propan-2-ol | 67-63-0 | TWA | 400 ppm<br>999 mg/m3 | GB EH40 |
| | | STEL | 500 ppm<br>1,250 mg/m3 | GB EH40 |
| ethanol | 64-17-5 | TWA | 1,000 ppm<br>1,920 mg/m3 | GB EH40 |
| | Further information: Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used. | | | |
| silicon dioxide | 7631-86-9 | TWA (inhalable dust) | 6 mg/m3<br>(Silica) | GB EH40 |
| | Further information: For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/4 General methods for sampling and gravimetric analysis or respirable, thoracic and inhalable aerosols., The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be sub- | | | |

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| | ject to COSHH if people are exposed to dust above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limits., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system, and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'., Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/4., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used. | | | |
| | | TWA (Respirable dust) | 2.4 mg/m3 (Silica) | GB EH40 |
| | Further information: For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/4 General methods for sampling and gravimetric analysis or respirable, thoracic and inhalable aerosols., The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed to dust above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limits., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system, and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'., Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/4., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used. | | | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (Inhalable) | 10 mg/m3 | GB EH40 |
| | | TWA (Respirable fraction) | 4 mg/m3 | GB EH40 |
| | | TWA (inhalable dust) | 10 mg/m3 | GB EH40 |
| | Further information: For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/4 General methods for sampling and gravimetric analysis or respirable, thoracic and inhalable aerosols., The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be sub- | | | |

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| | | TWA (Respirable dust) | 4 mg/m3 | GB EH40 |
| | Further information: For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/4 General methods for sampling and gravimetric analysis or respirable, thoracic and inhalable aerosols., The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed to dust above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limits., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system, and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'., Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/4., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used. | | | |
| propan-2-ol | 67-63-0 | TWA | 400 ppm<br>999 mg/m3 | GB EH40 |
| | | STEL | 500 ppm<br>1,250 mg/m3 | GB EH40 |
| ethanol | 64-17-5 | TWA | 1,000 ppm<br>1,920 mg/m3 | GB EH40 |
| | Further information: Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used. | | | |
| silicon dioxide | 7631-86-9 | TWA (inhalable dust) | 6 mg/m3<br>(Silica) | GB EH40 |
| | Further information: For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in | | | |

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| | | TWA (Respirable dust) | 2.4 mg/m3 (Silica) | GB EH40 |
| | Further information: For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/4 General methods for sampling and gravimetric analysis or respirable, thoracic and inhalable aerosols., The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed to dust above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limits., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system, and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'., Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/4., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used. | | | |

**Derived No Effect Level (DNEL)**

| Substance name | End Use | Routes of exposure | Potential health effects | Value |
|---|---|---|---|---|
| aluminium powder (stabilised) | Workers | Inhalation | Long-term systemic effects | 3.72 mg/m3 |
| | Workers | Inhalation | Long-term local effects | 3.72 mg/m3 |
| | Consumers | Oral | Long-term systemic | 3.95 mg/kg |

| | | | | |
|---|---|---|---|---|
| | | | effects | |
| propan-2-ol | Workers | Inhalation | Long-term systemic effects | 500 mg/m3 |
| | Workers | Inhalation | Acute systemic effects | 1000 mg/m3 |
| | Workers | Dermal | Long-term systemic effects | 888 mg/kg |
| | Consumers | Inhalation | Long-term systemic effects | 89 mg/m3 |
| | Consumers | Inhalation | Acute systemic effects | 178 mg/m3 |
| | Consumers | Dermal | Long-term systemic effects | 319 mg/kg |
| | Consumers | Oral | Long-term systemic effects | 26 mg/kg |
| | Consumers | Oral | Acute systemic effects | 51 mg/kg |
| ethanol | Workers | Inhalation | Long-term systemic effects | 380 mg/m3 |
| | Workers | Inhalation | Long-term local effects | 1900 mg/m3 |
| | Workers | Dermal | Long-term systemic effects | 343 mg/kg |
| | Consumers | Inhalation | Long-term systemic effects | 114 mg/m3 |
| | Consumers | Dermal | Long-term systemic effects | 206 mg/kg |
| | Consumers | Oral | Long-term systemic effects | 87 mg/kg |
| silicon dioxide | Workers | Inhalation | Long-term systemic effects | 4 mg/m3 |
| Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha | Workers | Inhalation | Acute systemic effects | 1500 mg/m3 |
| | Workers | Dermal | Long-term systemic effects | 300 mg/kg |
| | Consumers | Oral | Long-term systemic effects | 300 mg/kg |
| | Consumers | Dermal | Long-term systemic effects | 300 mg/kg |
| | Consumers | Inhalation | Long-term systemic effects | 900 mg/m3 |
| Solvent naphtha (petroleum), light arom. | Workers | Inhalation | Long-term systemic effects | 150 mg/m3 |
| | Workers | Inhalation | Long-term local effects | 837.5 mg/m3 |
| | Workers | Inhalation | Acute systemic effects | 1286.4 mg/m3 |
| | Workers | Inhalation | Acute local effects | 1066.67 mg/m3 |
| | Workers | Dermal | Long-term systemic | 12.5 mg/kg |

| | | | | |
|---|---|---|---|---|
| | | | effects | |
| | Consumers | Inhalation | Long-term systemic effects | 32 mg/m3 |
| | Consumers | Inhalation | Long-term local effects | 178.57 mg/m3 |
| | Consumers | Inhalation | Acute systemic effects | 1152 mg/m3 |
| | Consumers | Inhalation | Acute local effects | 640 mg/m3 |
| | Consumers | Dermal | Long-term systemic effects | 7.5 mg/kg |
| | Consumers | Dermal | Acute systemic effects | 11 mg/kg |
| | Consumers | Oral | Long-term systemic effects | 7.5 mg/kg |
| N-(3-(trimethoxysilyl)propyl)ethylenediamine | Workers | Inhalation | Long-term systemic effects | 35.3 mg/m3 |
| | Workers | Inhalation | Long-term local effects | 0.6 mg/m3 |
| | Workers | Inhalation | Acute systemic effects | 260 mg/m3 |
| | Workers | Inhalation | Acute local effects | 5.36 mg/m3 |
| | Workers | Dermal | Long-term systemic effects | 5 mg/kg |
| | Workers | Dermal | Acute systemic effects | 5 mg/kg |
| | Consumers | Inhalation | Long-term systemic effects | 8.7 mg/m3 |
| | Consumers | Inhalation | Long-term local effects | 0.1 mg/m3 |
| | Consumers | Inhalation | Acute systemic effects | 50 mg/m3 |
| | Consumers | Inhalation | Acute local effects | 4 mg/m3 |
| | Consumers | Dermal | Long-term systemic effects | 2.5 mg/kg |
| | Consumers | Dermal | Acute systemic effects | 17 mg/kg |
| | Consumers | Oral | Long-term systemic effects | 2.5 mg/kg |

**Predicted No Effect Concentration (PNEC)**

| Substance name | Environmental Compartment | Value |
|---|---|---|
| aluminium powder (stabilised) | Fresh water | 0.0749 mg/l |
| | clarification plant | 20 mg/l |
| propan-2-ol | Fresh water | 140.9 mg/l |
| | Sea water | 140.9 mg/l |
| | Fresh water sediment | 552 mg/kg |
| | Sea sediment | 552 mg/kg |
| | STP | 2251 mg/l |
| | Soil | 28 mg/kg |
| ethanol | Fresh water | 0.96 mg/l |
| | Sea water | 0.79 mg/l |

| | | |
|---|---|---|
| | Intermittent water release | 2.75 mg/l |
| | STP | 580 mg/l |
| | Fresh water sediment | 3.6 mg/kg |
| | Sea sediment | 2.9 mg/kg |
| | Soil | 0.63 mg/kg |
| | Secondary Poisoning | 380 mg/kg |
| N-(3-(trimethoxysi-lyl)propyl)ethylenediamine | Fresh water | 0.062 mg/l |
| | Sea water | 0.0062 mg/l |
| | STP | 20 mg/l |
| | Fresh water sediment | 0.048 mg/kg |
| | Sea sediment | 0.0048 mg/kg |
| | Soil | 0.0075 mg/kg |

### 8.2 Exposure controls

**Personal protective equipment**

Eye/face protection : Wear face-shield and protective suit for abnormal processing problems.

Hand protection

Material : Solvent-resistant gloves (butyl-rubber)

Remarks : Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). The exact break through time can be obtained from the protective glove producer and this has to be observed. Please observe the instructions regarding permeability and break-through time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Recommended preventive skin protection Skin should be washed after contact. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Skin and body protection : Long sleeved clothing
Safety shoes
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection : Use suitable breathing protection if workplace concentration requires.
In the case of dust or aerosol formation use respirator with an approved filter.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Form : Pasty solid

Color : silver

| | | |
|---|---|---|
| Odor | : | solvent |
| Odor Threshold | : | No data available |
| pH | : | substance/mixture is non-soluble (in water) |
| Freezing point | : | No data available |
| Boiling point/boiling range | : | 82 - 83 °C |
| Flash point | : | 13 °C |
| Flammability | : | The substance or mixture is a flammable solid with the category 1. |
| Upper explosion limit / Upper flammability limit | : | No data available |
| Lower explosion limit / Lower flammability limit | : | No data available |
| Vapor pressure | : | No data available |
| Relative vapor density | : | No data available |
| Relative density | : | No data available |
| Density | : | 1.3 - 2.0 g/cm3 |
| Solubility(ies) | | |
| Water solubility | : | insoluble |
| Solubility in other solvents | : | No data available |
| Partition coefficient: n-octanol/water | : | No data available |
| Autoignition temperature | : | 425 °C |
| Decomposition temperature | : | No data available |
| Viscosity, kinematic | : | No data available |
| Explosive properties | : | Not explosive<br>Vapors may form explosive mixture with air. |

**9.2 Other information**

| | | |
|---|---|---|
| Self-ignition | : | not auto-flammable |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No decomposition if stored and applied as directed.

### 10.2 Chemical stability

No decomposition if stored and applied as directed.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : Reacts with alkalis, acids, halogenes and oxidizing agents.
Contact with acids and alkalis may release hydrogen.
Mixture reacts slowly with water resulting in evolution of hydrogen.
Vapors may form explosive mixture with air.
Stable under recommended storage conditions.

### 10.4 Conditions to avoid

Conditions to avoid : Do not allow to dry.

Heat, flames and sparks.

### 10.5 Incompatible materials

Materials to avoid : Acids
Bases
Oxidizing agents
Highly halogenated compounds

### 10.6 Hazardous decomposition products

This information is not available.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

**Acute toxicity**

Not classified due to lack of data.

**Components:**

**propan-2-ol:**

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

**ethanol:**

Acute oral toxicity : LD50 (Rat, male and female): 10,470 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat, male and female): 124.7 mg/l
Exposure time: 4 h
Test atmosphere: vapor
Method: OECD Test Guideline 403

**Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): Test atmosphere: vapor
Remarks: An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration.

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg

**Solvent naphtha (petroleum), light arom.:**

Acute oral toxicity : LD50 (Rat): 3,492 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 3,160 mg/kg

**silicon dioxide:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute oral toxicity : (Mouse): 15,000 mg/kg

Acute inhalation toxicity : (Rat): 0.139 mg/l
Exposure time: 4 h

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg

**Skin corrosion/irritation**

Not classified due to lack of data.

**Product:**

Remarks : May cause skin irritation in susceptible persons.

**Components:**

**ethanol:**

Result : No skin irritation
Remarks : Based on available data, the classification criteria are not met.

**Serious eye damage/eye irritation**

Causes serious eye irritation.

**Product:**

Remarks : Eye irritation

**Components:**

**propan-2-ol:**
Result : Eye irritation

**ethanol:**
Result : Eye irritation
Remarks : Based on available data, the classification criteria are not met.

**N-(3-(trimethoxysilyl)propyl)ethylenediamine:**
Result : Corrosive

**Respiratory or skin sensitization**

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

**Respiratory sensitization**
Not classified due to lack of data.

**Product:**
Result : Does not cause skin sensitization.

**Components:**

**N-(3-(trimethoxysilyl)propyl)ethylenediamine:**
Result : The product is a skin sensitizer, sub-category 1B.

**Germ cell mutagenicity**
Not classified due to lack of data.

**Components:**

**Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha:**
Germ cell mutagenicity- Assessment : Classified based on benzene content < 0.1% (Regulation (EC) 1272/2008, Annex VI, Part 3, Note P)

**Solvent naphtha (petroleum), light arom.:**
Germ cell mutagenicity- Assessment : Classified based on benzene content < 0.1% (Regulation (EC) 1272/2008, Annex VI, Part 3, Note P)

**Carcinogenicity**
Not classified due to lack of data.

**Components:**

**Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha:**
Carcinogenicity - Assessment : Classified based on benzene content < 0.1% (Regulation (EC) 1272/2008, Annex VI, Part 3, Note P)

**Solvent naphtha (petroleum), light arom.:**

Carcinogenicity - Assessment : Classified based on benzene content < 0.1% (Regulation (EC) 1272/2008, Annex VI, Part 3, Note P)

**Reproductive toxicity**

Not classified due to lack of data.

**STOT-single exposure**

May cause drowsiness or dizziness.

**Components:**

**propan-2-ol:**

Assessment : May cause drowsiness or dizziness.

**Solvent naphtha (petroleum), light arom.:**

Assessment : May cause respiratory irritation., May cause drowsiness or dizziness.

**N-(3-(trimethoxysilyl)propyl)ethylenediamine:**

Assessment : May cause respiratory irritation.

**STOT-repeated exposure**

Not classified due to lack of data.

**Aspiration toxicity**

Not classified due to lack of data.

**Components:**

**Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha:**

May be fatal if swallowed and enters airways.

**Solvent naphtha (petroleum), light arom.:**

May be fatal if swallowed and enters airways.

**Further information**

**Product:**

Remarks : Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
Concentrations substantially above the TLV value may cause narcotic effects.
Solvents may degrease the skin.

## SECTION 12: Ecological information

### 12.1 Toxicity

**Components:**

**Solvent naphtha (petroleum), light arom.:**

**Ecotoxicology Assessment**

| | | |
|---|---|---|
| Chronic aquatic toxicity | : | Toxic to aquatic life with long lasting effects. |

**silicon dioxide:**

| | | |
|---|---|---|
| Toxicity to daphnia and other aquatic invertebrates | : | (Daphnia): 7,600 mg/l |
| Toxicity to algae/aquatic plants | : | (Chlorella pyrenoidosa): 440 mg/l<br>Exposure time: 72 h |

### 12.2 Persistence and degradability

No data available

### 12.3 Bioaccumulative potential

No data available

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

**Product:**

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

### 12.6 Other adverse effects

**Product:**

| | | |
|---|---|---|
| Endocrine disrupting potential | : | This substance/mixture does not contain components considered to have endocrine disrupting properties for environment according to UK REACH Article 57(f) at levels of 0.1% or higher. |
| Additional ecological information | : | No data available |

**Components:**

**silicon dioxide:**

| | | |
|---|---|---|
| Additional ecological information | : | No data available |

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.
In accordance with local and national regulations.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.
In accordance with local and national regulations.

## SECTION 14: Transport information

### 14.1 UN number

**ADR** : UN 1325

**IMDG** : UN 1325

**IATA** : UN 1325

### 14.2 UN proper shipping name

**ADR** : FLAMMABLE SOLID, ORGANIC, N.O.S.
(Aluminium pigment paste)

**IMDG** : FLAMMABLE SOLID, ORGANIC, N.O.S.
(Aluminium pigment paste)

**IATA** : Flammable solid, organic, n.o.s.
(Aluminium pigment paste)

### 14.3 Transport hazard class(es)

| | | Class | Subsidiary risks |
|---|---|---|---|
| **ADR** | : | 4.1 | |
| **IMDG** | : | 4.1 | |
| **IATA** | : | 4.1 | |

### 14.4 Packing group

**ADR**

| | | |
|---|---|---|
| Packing group | : | II |
| Classification Code | : | F1 |
| Hazard Identification Number | : | 40 |
| Labels | : | 4.1 |
| Tunnel restriction code | : | (E) |

**IMDG**

| | | |
|---|---|---|
| Packing group | : | II |

| | | |
|---|---|---|
| Labels | : | 4.1 |
| EmS Code | | F-GS-G |
| EmS Code (EmS Code) | : | F-G, S-G |
| Remarks | : | IMDG Code segregation group 15 - Powdered metals |

**IATA (Cargo)**

| | | |
|---|---|---|
| Packing instruction (cargo aircraft) | : | 448 |
| Packing instruction (LQ) | : | Y441 |
| Packing group | : | II |
| Labels | : | 4.1 |

**IATA (Passenger)**

| | | |
|---|---|---|
| Packing instruction (passenger aircraft) | : | 445 |
| Packing instruction (LQ) | : | Y441 |
| Packing group | : | II |
| Labels | : | 4.1 |

### 14.5 Environmental hazards

**ADR**

| | | |
|---|---|---|
| Environmentally hazardous | : | no |

**IMDG**

| | | |
|---|---|---|
| Marine pollutant | : | no |

### 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

## SECTION 15: Regulatory information

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

Relevant EU provisions transposed through retained EU law

| | | |
|---|---|---|
| UK REACH List of restrictions (Annex 17) | : | Conditions of restriction for the following entries must be considered:: Number on list 3: propan-2-ol, ethanol, Solvent naphtha (petroleum), light arom., N-(3-(trimethoxysilyl)propyl)ethylenediamine, methanol<br><br>Number on list 40: aluminium powder (stabilised), |

| | | |
|---|---|---|
| | | propan-2-ol,<br>ethanol,<br>Solvent naphtha (petroleum), light arom.,<br>methanol |
| UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation | : | Not applicable |
| The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain) | : | Not applicable |
| Regulation (EU) No 2024/590 on substances that deplete the ozone layer | : | Not applicable |
| UK REACH List of substances subject to authorisation (Annex XIV) | : | Not applicable |
| GB Export and import of hazardous chemicals - Prior Informed Consent (PIC) Regulation | : | Not applicable |
| Control of Major Accident Hazards Regulations 2015 (COMAH) | 34 | Petroleum products: (a) gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams),(d) heavy fuel oils (e) alternative fuels serving the same purposes and with similar properties as regards flammability and environmental hazards as the products referred to in points (a) to (d) |

### 15.2 Chemical Safety Assessment

No data available

## SECTION 16: Other information

**Full text of H-Statements**

| | | |
|---|---|---|
| H225 | : | Highly flammable liquid and vapor. |
| H226 | : | Flammable liquid and vapor. |
| H228 | : | Flammable solid. |
| H304 | : | May be fatal if swallowed and enters airways. |
| H317 | : | May cause an allergic skin reaction. |
| H318 | : | Causes serious eye damage. |
| H319 | : | Causes serious eye irritation. |
| H335 | : | May cause respiratory irritation. |
| H336 | : | May cause drowsiness or dizziness. |
| H411 | : | Toxic to aquatic life with long lasting effects. |

**Full text of other abbreviations**

| | | |
|---|---|---|
| Aquatic Chronic | : | Long-term (chronic) aquatic hazard |
| Asp. Tox. | : | Aspiration hazard |
| Eye Dam. | : | Serious eye damage |
| Eye Irrit. | : | Eye irritation |

| | | |
|---|---|---|
| Flam. Liq. | : | Flammable liquids |
| Flam. Sol. | : | Flammable solids |
| Note T | : | This substance may be marketed in a form which does not have the physical hazards as indicated by the classification in the entry in Part 3. |
| Skin Sens. | : | Skin sensitization |
| STOT SE | : | Specific target organ toxicity - single exposure |
| GB EH40 | : | UK. EH40 WEL - Workplace Exposure Limits |
| GB EH40 / TWA | : | Long-term exposure limit (8-hour TWA reference period) |
| GB EH40 / STEL | : | Short-term exposure limit (15-minute reference period) |

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; BGW - Biological Limit Values; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardization; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organization for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); LSPN - List of Hazardous Notified Substances (Chile); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

**Further information**

| **Classification of the mixture:** | | **Classification procedure:** |
|---|---|---|
| Flam. Sol. 1 | H228 | Based on product data or assessment |
| Eye Irrit. 2 | H319 | Calculation method |
| STOT SE 3 | H336 | Calculation method |

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.

GB / EN