

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



STAPA IL HYDROLAN S 2100 Aluminium Paste

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Print Date: 03.12.2024 |
| 5.1 | 29.02.2024 | 102000031742 | Date of first issue: 19.07.2019 |

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

1.1 Product identifier

Trade name : STAPA IL HYDROLAN S 2100 Aluminium Paste

Product code : 051994HV0

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

Use of the Substance/Mixture : Colouring agents, pigments

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 number

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)

| | |
|--|--|
| 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

Labelling (REGULATION (EC) No 1272/2008)



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| | | |
|--------------------------|---|---|
| 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 components which must be listed on the label:

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

Additional Labelling

EUH208 Contains N-(3-(trimethoxysilyl)propyl)ethylenediamine. May produce an allergic reaction.

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. EC-No. Index-No. | ClassificationREGUL ATION (EC) No 1272/2008 | Concentration (% w/w) |
|---------------|--------------------------------|---|--------------------------|
| | | | |

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| | Registration number | | |
|--|--|--|------------------|
| aluminium powder (stabilised) | 7429-90-5 231-072-3 013-002-00-1 01-2119529243-45 | Flam. Sol. 1; H228 | $\geq 25 - < 50$ |
| propan-2-ol | 67-63-0 200-661-7 603-117-00-0 01-2119457558-25 | Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 (Central nervous system) | $\geq 25 - < 50$ |
| ethanol | 64-17-5 200-578-6 603-002-00-5 01-2119457610-43 | Flam. Liq. 2; H225 Eye Irrit. 2; H319 | $\geq 1 - < 10$ |
| Naphtha (petroleum), hydrotreated heavy; Low boiling point ydrogen treated naphtha | 64742-48-9 918-481-9 | Asp. Tox. 1; H304 EUH066 | $\geq 1 - < 10$ |
| Solvent naphtha (petroleum), light arom. | 64742-95-6 918-668-5 01-2119455851-35 | Flam. Liq. 3; H226 STOT SE 3; H336 (Central nervous system) STOT SE 3; H335 (Respiratory system) Asp. Tox. 1; H304 Aquatic Chronic 2; H411 EUH066 | $\geq 1 - < 2.5$ |
| N-(3-(trimethoxysilyl)propyl)ethylenedia mine | 1760-24-3 217-164-6 01-2119970215-39 | Eye Dam. 1; H318 Skin Sens. 1B; H317 STOT SE 3; H335 (Respiratory system) | $\geq 0.1 - < 1$ |

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : Move the victim to 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.

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- 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 eye irritation persists, consult a specialist.
- 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

This information is not available.

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 firefighting : Contact with water liberates extremely flammable gas (hydrogen).

5.3 Advice for firefighters

- Special protective equipment for firefighters : 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

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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

General advice : 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 vapours/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

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Advice on protection against fire and explosion : regulations.
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 surfaces 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/m ³ | GB EH40 |
| | | TWA (Respirable fraction) | 4 mg/m ³ | GB EH40 |
| | | TWA (inhalable dust) | 10 mg/m ³ | 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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| | | | | |
|-----------------|---|-----------------------|------------------------------------|---------|
| | <p>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.</p> | | | |
| | | TWA (Respirable dust) | 4 mg/m ³ | GB EH40 |
| | <p>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.</p> | | | |
| propan-2-ol | 67-63-0 | TWA | 400 ppm 999 mg/m ³ | GB EH40 |
| | | STEL | 500 ppm 1,250 mg/m ³ | GB EH40 |
| silicon dioxide | 7631-86-9 | TWA (inhalable) | 6 mg/m ³ | GB EH40 |

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| | dust) | (Silica) | |
|---------|--|--------------------------------|-------------------|
| | 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. | | |
| | TWA (Respirable dust) | 2.4 mg/m ³ (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. | | |
| ethanol | 64-17-5 | TWA | 1,000 ppm GB EH40 |

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| | | | |
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| | | 1,920 mg/m3 | |
| Further information: 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) according to Regulation (EC) No. 1907/2006:

| Substance name | End Use | Exposure routes | 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 effects | 3.95 mg/kg |
| propan-2-ol | Workers | Inhalation | Long-term systemic effects | 500 mg/m3 |
| | Workers | Dermal | Long-term systemic effects | 888 mg/kg |
| | Consumers | Inhalation | Long-term systemic effects | 89 mg/m3 |
| | Consumers | Dermal | Long-term systemic effects | 319 mg/kg |
| | Consumers | Oral | Long-term systemic effects | 26 mg/kg |
| | Workers | Inhalation | Long-term systemic effects | 4 mg/m3 |
| | Workers | Inhalation | Long-term systemic effects | 950 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 |
| Naphtha (petroleum), hydrotreated heavy; Low boiling point ydrogen 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 |

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| Solvent naphtha (petroleum), light arom. | Workers | Inhalation | Long-term systemic effects | 151 mg/m3 |
| | Workers | Inhalation | Acute systemic effects | 1286.4 mg/m3 |
| | Workers | Inhalation | Long-term local effects | 837.5 mg/m3 |
| | Workers | Inhalation | Acute local effects | 1066.67 mg/m3 |
| | Workers | Dermal | Long-term systemic effects | 12.5 mg/kg |
| | Consumers | Inhalation | Long-term systemic effects | 32 mg/m3 |
| | Consumers | Inhalation | Acute systemic effects | 1152 mg/m3 |
| | Consumers | Inhalation | Long-term local effects | 178.57 mg/m3 |
| | Consumers | Inhalation | Acute local effects | 640 mg/m3 |
| | Consumers | Dermal | Long-term systemic effects | 7.5 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 | 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) according to Regulation (EC) No. 1907/2006:

| Substance name | Environmental Compartment | Value |
|-------------------------------|---------------------------|-------------|
| aluminium powder (stabilised) | Fresh water | 0.0749 mg/l |

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| | clarification plant | 20 mg/l |
| propan-2-ol | Fresh water | 140.9 mg/l |
| | Marine water | 140.9 mg/l |
| | Fresh water sediment | 552 mg/kg |
| | Marine sediment | 552 mg/kg |
| | STP | 2251 mg/l |
| | Soil | 28 mg/kg |
| ethanol | Fresh water | 0.96 mg/l |
| | Marine water | 0.79 mg/l |
| | Intermittent water release | 2.75 mg/l |
| | STP | 580 mg/l |
| | Fresh water sediment | 3.6 mg/kg |
| | Marine sediment | 2.9 mg/kg |
| | Soil | 0.63 mg/kg |
| | Secondary Poisoning | 380 mg/kg |
| N-(3-(trimethoxysilyl)propyl)ethylenedi amine | Fresh water | 0.062 mg/l |
| | Marine water | 0.0062 mg/l |
| | STP | 25 mg/l |
| | Fresh water sediment | 0.048 mg/kg |
| | Marine 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 breakthrough 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

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Respiratory protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place. Use suitable breathing protection if workplace concentration requires.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|--|--|
| Form | : Pasty solid |
| Colour | : silver |
| Odour | : solvent-like |
| Odour Threshold | : No data available |
| Freezing point | : No data available |
| Boiling point/boiling range | : 82 - 83 °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 |
| Flash point | : 13 °C |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| pH | : substance/mixture is non-soluble (in water) |
| Viscosity, kinematic | : No data available |
| Solubility(ies) | |
| Water solubility | : insoluble |
| Solubility in other solvents | : No data available |
| Partition coefficient: n-octanol/water | : No data available |
| Vapour pressure | : No data available |
| Relative density | : No data available |

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| | |
|--|-------------------------------|
| Density | : 1.3 - 2.0 g/cm ³ |
| Relative vapour density | : No data available |
| Particle characteristics Particle Size Distribution | : No data available |

9.2 Other information

| | |
|------------------------|--|
| Explosives | : Not explosive Vapours may form explosive mixture with air. Not explosive Vapours may form explosive mixture with air. |
| Self-ignition | : not auto-flammable |
| Miscibility with water | : partly miscible |

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. Vapours 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 |
|--------------------|--|

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10.6 Hazardous decomposition products

This information is not available.

SECTION 11: Toxicological information

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

Acute toxicity

Not classified based on available information.

Components:

aluminium powder (stabilised):

Acute inhalation toxicity : LC50 (Rat): > 5 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

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: vapour
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: vapour
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

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

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

Skin corrosion/irritation

Not classified based on available information.

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.

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

Result : Repeated exposure may cause skin dryness or cracking.

Solvent naphtha (petroleum), light arom.:

Result : Repeated exposure may cause skin dryness or cracking.

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 sensitisation

Skin sensitisation

Not classified based on available information.

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Respiratory sensitisation

Not classified based on available information.

Components:

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

Result : The product is a skin sensitiser, sub-category 1B.

Germ cell mutagenicity

Not classified based on available information.

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 based on available information.

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 based on available information.

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

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dizziness.

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

Assessment : May cause respiratory irritation.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

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.

11.2 Information on other hazards

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.

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

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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 Endocrine disrupting properties

No data available

12.7 Other adverse effects

Product:

Additional ecological information : No data available

Components:

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

Additional ecological information : No data available

SECTION 13: Disposal considerations

European Waste Catalogue : 12 01 04 - non-ferrous metal dust and particles
European Waste Catalogue : 10 03 21 - other particulates and dust (including ball-mill dust) containing hazardous substances

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.

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SECTION 14: Transport information

14.1 UN number or ID 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-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 |

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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 Maritime transport in bulk according to IMO instruments

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

| | |
|--|--|
| REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) | : Conditions of restriction for the following entries should be considered: aluminium powder (stabilised) (Number on list 40) propan-2-ol (Number on list 3) ethanol (Number on list 3) Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha (Number on list 3) Solvent naphtha (petroleum), light arom. (Number on list 3) N-(3-(trimethoxysilyl)propyl)ethylenediamine (Number on list 3) |
| 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 (EC) No 1005/2009 on substances that deplete the ozone layer | : Not applicable |

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UK REACH List of substances subject to authorisation : Not applicable
(Annex XIV)

15.2 Chemical safety assessment

No data available

SECTION 16: Other information

Full text of H-Statements

| | |
|--------|---|
| H225 | : Highly flammable liquid and vapour. |
| H226 | : Flammable liquid and vapour. |
| 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. |
| EUH066 | : Repeated exposure may cause skin dryness or cracking. |

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 |
| Skin Sens. | : Skin sensitisation |
| 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; AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; 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 Standardisation; 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 -

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International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation 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); 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, Authorisation 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; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Classification of the mixture:

| | |
|--------------|------|
| Flam. Sol. 1 | H228 |
| Eye Irrit. 2 | H319 |
| STOT SE 3 | H336 |

Classification procedure:

| |
|-------------------------------------|
| Based on product data or assessment |
| Calculation method |
| 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