STAPA® IL HYDROLAN AL-II 2156 Aluminium Paste

Version	Revision Date:	SDS Number:	Print Date: 15.07.2026
8.0	14.07.2026	102000000226	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 AL-II 2156 Aluminium Paste

Product code : 005362GD0M8

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. EC-No. Index-No.	Classification	Concentration (% w/w)

	Registration number		
propan-2-ol	67-63-0 200-661-7 603-117-00-0	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 (Central nervous system)	>= 25 - < 50
ethanol	64-17-5 200-578-6 603-002-00-5	Flam. Liq. 2; H225 Eye Irrit. 2; H319	>= 1 - < 10
Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha	64742-48-9 918-481-9	Asp. Tox. 1; H304 EUH066	>= 1 - < 10
Solvent naphtha (petroleum), light arom.	64742-95-6 918-668-5	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	>= 1 - < 2.5
N-(3-(trimethoxysilyl)propyl)ethylenediamine	1760-24-3 217-164-6	Eye Dam. 1; H318 Skin Sens. 1B; H317 STOT SE 3; H335 (Respiratory system)	>= 0.1 - < 1
Substances with a workplace exposure limit :			
aluminium powder (stabilised)	7429-90-5 231-072-3 013-002-00-1	Flam. Sol. 1; H228 Note T	>= 50 - <= 100
silicon dioxide	7631-86-9 231-545-4		>= 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 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/m3	GB EH40
		TWA (Respirable	4 mg/m3	GB EH40

		fraction)		
		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, 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	GB EH40

			999 mg/m3	
		STEL	500 ppm 1,250 mg/m3	GB EH40
ethanol	64-17-5	TWA	1,000 ppm 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 (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.			
		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 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)	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			

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propan-2-ol	67-63-0	TWA	400 ppm 999 mg/m3	GB EH40
		STEL	500 ppm 1,250 mg/m3	GB EH40
ethanol	64-17-5	TWA	1,000 ppm 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 (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.			
		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			

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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 effects	3.95 mg/kg
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	4 mg/m3

			effects	
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 effects	12.5 mg/kg
	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-(trimethoxysilyl)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 pro-

tective 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 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	:	characteristic
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 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 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 Number on list 40: aluminium powder (stabilised), propan-2-ol, ethanol, Solvent naphtha (petroleum), light arom., 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