

## SILVERSHINE 412 Aluminium Paste

Version 1.0      Revision Date: 24.08.2016      SDS Number: 102000024923      Print Date: 19.11.2018  
Date of first issue: 24.08.2016

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

#### 1.1 Product identifier

Trade name : SILVERSHINE 412 Aluminium Paste  
Material number : 022579G60

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

This information is not available.

#### 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

GBK Gefahrgut Büro GmbH, Ingelheim, Germany:  
From outside US: : (001) 352-323-3500  
(First call in English, response in your language is possible)  
US & Canada (toll free) : 1-800-5355-053

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### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Specific target organ toxicity - single exposure, Category 3, Central nervous system      H336: May cause drowsiness or dizziness.  
Specific target organ toxicity - single exposure, Category 3, Respiratory system      H335: May cause respiratory irritation.  
Chronic aquatic toxicity, Category 2      H411: Toxic to aquatic life with long lasting effects.

##### Classification (67/548/EEC, 1999/45/EC)

Irritant      R37: Irritating to respiratory system.  
Dangerous for the environment      R51/53: Toxic to aquatic organisms, may cause

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long-term adverse effects in the aquatic environment.

R66: Repeated exposure may cause skin dryness or cracking.

R67: Vapours may cause drowsiness and dizziness.

### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms	:	 
Signal word	:	Warning
Hazard statements	:	H335      May cause respiratory irritation. H336      May cause drowsiness or dizziness. H411      Toxic to aquatic life with long lasting effects.
Precautionary statements	:	<b>Prevention:</b> P261      Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P273      Avoid release to the environment. <b>Response:</b> P304 + P340 + P312      IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. P391      Collect spillage. <b>Storage:</b> P403 + P233      Store in a well-ventilated place. Keep container tightly closed. <b>Disposal:</b> P501      Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

64742-95-6      solvent naphtha (petroleum), light arom.

### 2.3 Other hazards

Combustible Solids

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.

No information available.

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### SECTION 3: Composition/information on ingredients

#### 3.2 Mixtures

##### Hazardous components

Chemical name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration (% w/w)
aluminium powder (stabilised)	7429-90-5 231-072-3 01-2119529243-45	F; R11	Flam. Sol. 1; H228	>= 50 - <= 100
solvent naphtha (petroleum), light arom.	64742-95-6 265-199-0 01-2119455851-35	Xn; R65 Xi; R37 N; R51/53 R10 R66 R67	Flam. Liq. 3; H226 Asp. Tox. 1; H304 STOT SE 3; H335, H336 Aquatic Chronic 2; H411	>= 25 - < 50
low boiling point hydrogen treated naphtha	64742-48-9 265-150-3 01-2119457273-39	Xn; R65	Asp. Tox. 1; H304	>= 10 - < 20

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

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.  
Do not leave the victim unattended.
- 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.
- In case of eye contact : Immediately flush eye(s) with plenty of water.
- Flush eyes with water as a precaution.  
Remove contact lenses.  
Keep eye wide open while rinsing.

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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

Symptoms : No information available.

Risks : No information available.

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

Treatment : No information available.

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media : Dry sand  
Special powder against metal fire

Unsuitable extinguishing media : Water  
Foam  
ABC powder  
Carbon dioxide (CO<sub>2</sub>)

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

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

### 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 : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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## 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.

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Remove all sources of ignition.  
Use personal protective equipment.  
Avoid dust formation.

### 6.2 Environmental precautions

Environmental precautions : 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.

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## 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.  
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 : Keep away from open flames, hot surfaces and sources of ignition. Earthing of containers and apparatuses is essential.

Avoid dust formation.

Hygiene measures : 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.

Keep container tightly closed in a dry and well-ventilated

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place. Observe label precautions. 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.
- Storage class (TRGS 510) : 11, Combustible Solids
- Other data : No decomposition if stored and applied as directed.

### 7.3 Specific end use(s)

This information is not available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis (Version Date)
aluminium powder (stabilised)	7429-90-5	TWA (Inhalable)	10 mg/m <sup>3</sup>	GB EH40 (2011-12-01)
Further information	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 <sup>-3</sup> 8-hour TWA of inhalable dust or 4 mg.m <sup>-3</sup> 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used			
aluminium powder (stabilised)	7429-90-5	TWA (Respirable)	4 mg/m <sup>3</sup>	GB EH40 (2011-12-01)
Further information	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 <sup>-3</sup> 8-hour TWA of inhalable dust or 4 mg.m <sup>-3</sup> 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used			
aluminium powder (stabilised)	7429-90-5	TWA (Inhalable)	10 mg/m <sup>3</sup>	GB EH40 (2005-04-06)
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			

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	<p>in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust, 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<sup>-3</sup> 8-hour TWA of inhalable dust or 4 mg.m<sup>-3</sup> 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit., 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 MDHS14/3., 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 should be used</p>			
aluminium powder (stabilised)	7429-90-5	TWA (Respirable)	4 mg/m <sup>3</sup>	GB EH40 (2005-04-06)
Further information	<p>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 MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust, 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<sup>-3</sup> 8-hour TWA of inhalable dust or 4 mg.m<sup>-3</sup> 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit., 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 MDHS14/3., 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 should be used</p>			
aluminium powder (stabilised)	7429-90-5	TWA (inhalable dust)	10 mg/m <sup>3</sup>	GB EH40 (2011-12-01)
Further information	<p>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 MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust, 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<sup>-3</sup></p>			

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	<p>8-hour TWA of inhalable dust or 4 mg.m<sup>-3</sup> 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit., 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 MDHS14/3., 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 should be used</p>			
aluminium powder (stabilised)	7429-90-5	TWA (Respirable dust)	4 mg/m <sup>3</sup>	GB EH40 (2011-12-01)
Further information	<p>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 MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust, 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<sup>-3</sup> 8-hour TWA of inhalable dust or 4 mg.m<sup>-3</sup> 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit., 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 MDHS14/3., 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 should be used</p>			

### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
Naphtha (petroleum), hydrotreated heavy (64742-48-9)	Workers	Skin contact	long term – systemic effects	300 mg/kg
	Consumers	Ingestion	long term – systemic effects	300 mg/kg
	Consumers	Skin contact	long term – systemic	300 mg/kg



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			effects	
	Consumers	Inhalation	long term – systemic effects	900 mg/m3

**8.2 Exposure controls**

**Personal protective equipment**

Eye protection : Safety glasses

Hand protection  
 Material : Solvent-resistant gloves

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  
 Choose body protection according to the amount and concentration of the dangerous substance at the work place.

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.  
 Dust safety masks are recommended when the dust concentration is more than 10 mg/m3.

**Environmental exposure controls**

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

**SECTION 9: Physical and chemical properties**

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

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Appearance	: Pasty solid
Colour	: silver
Odour	: characteristic
Odour Threshold	: No data available
pH	: No data available
Freezing point	: No data available
Boiling point/boiling range	: No data available
Flash point	: No data available
Evaporation rate	: No data available
Flammability (solid, gas)	: Combustible Solids
Auto-flammability	: not auto-flammable not auto-flammable
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Relative density	: No data available
Density	: 1.3 - 2.0 g/cm <sup>3</sup>
Bulk density	: No data available
Solubility(ies)	
Water solubility	: insoluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Flow time	: No data available
Explosive properties	: Not explosive Not explosive
Oxidizing properties	: No data available

### 9.2 Other information

No data available

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## 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.  
Vapour/air-mixtures are explosive at intense warming.

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Stable under recommended storage conditions.

### 10.4 Conditions to avoid

Conditions to avoid : Do not allow to dry.

No data available

### 10.5 Incompatible materials

Materials to avoid : Acids  
Bases  
Oxidizing agents  
Highly halogenated compounds

### 10.6 Hazardous decomposition products

Contact with water or humid air : This information is not available.

Thermal decomposition : This information is not available.

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

##### Components:

##### **7429-90-5:**

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

##### **64742-95-6:**

Acute oral toxicity : LD50 (Rat): 2,000 - 5,000 mg/kg

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

##### **64742-48-9:**

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

Acute inhalation toxicity : LC50 (Rat): 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

#### Serious eye damage/eye irritation

##### Product:

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Remarks: Product dust may be irritating to eyes, skin and respiratory system.

### 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.

#### Components:

##### **64742-48-9:**

Remarks: Solvents may degrease the skin.

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## SECTION 12: Ecological information

### 12.1 Toxicity

No data available

### 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:

Additional ecological information : Remarks: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Toxic to aquatic life with long lasting effects.

#### Components:

##### **64742-48-9:**

Additional ecological information : Remarks: No data available

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### SECTION 13: Disposal considerations

European Waste Catalogue : 12 01 04 - non-ferrous metal dust and particles

#### 13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.  
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.  
In accordance with local and national regulations.

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### SECTION 14: Transport information

#### 14.1 UN number

ADR : UN 3077  
IMDG : UN 3077  
IATA : UN 3077

#### 14.2 UN proper shipping name

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(aromatic hydrocarbons)  
IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(aromatic hydrocarbons)  
IATA : Environmentally hazardous substance, solid, n.o.s.  
(aromatic hydrocarbons)

#### 14.3 Transport hazard class(es)

ADR : 9  
IMDG : 9  
IATA : 9

#### 14.4 Packing group

ADR  
Packing group : III  
Classification Code : M7  
Hazard Identification Number : 90  
Labels : 9  
Tunnel restriction code : (E)

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### IMDG

Packing group : III  
Labels : 9  
EmS Number : F-A,S-F

### IATA

Packing instruction (cargo aircraft) : 956  
Packing instruction (passenger aircraft) : 956  
Packing instruction (LQ) : Y956  
Packing group : III  
Labels : Miscellaneous Dangerous Goods  
Remarks : IMDG Code segregation group 7 - Heavy metals and their salts

### 14.5 Environmental hazards

#### ADR

Environmentally hazardous : yes

#### IMDG

Marine pollutant : yes

### 14.6 Special precautions for user

Remarks : For single packagings <=5L / 5 kg, or combination packagings containing inner packagings <= 5L / 5 kg net per inner packaging, SV375 ADR, 2.10.2.7 IMDG-Code, A197 IATA-DGR may be applied.

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

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## SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : Not applicable

### 15.2 Chemical safety assessment

This information is not available.

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## SECTION 16: Other information

### Full text of R-Phrases

R10 : Flammable.  
R11 : Highly flammable.  
R37 : Irritating to respiratory system.  
R51/53 : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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R65 : Harmful: may cause lung damage if swallowed.  
R66 : Repeated exposure may cause skin dryness or cracking.  
R67 : Vapours may cause drowsiness and dizziness.

### Full text of H-Statements

H226 : Flammable liquid and vapour.  
H228 : Flammable solid.  
H304 : May be fatal if swallowed and enters airways.  
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 : Chronic aquatic toxicity  
Asp. Tox. : Aspiration hazard  
Flam. Liq. : Flammable liquids  
Flam. Sol. : Flammable solids  
STOT SE : Specific target organ toxicity - single exposure

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; 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 - 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; TCSI - Taiwan Chemical Substance 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

## **SILVERSHINE 412 Aluminium Paste**

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1.0	24.08.2016	102000024923	Date of first issue: 24.08.2016

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