

Globally Harmonized System of Classification and Labelling of  
Chemicals (GHS)

## SILVERSHINE 412 Aluminium Paste

Version 3.0

Revision Date 15.03.2024

Print Date 16.03.2024

### 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  
Guntersthal 4  
91235 Hartenstein  
Telephone : +499152770  
Telefax : +499152777008  
E-mail address : [msds.eckart@altana.com](mailto:msds.eckart@altana.com)  
Responsible/issuing person

#### 1.4 Emergency telephone number

**NCEC:**

(contract no.: ECKART29003-NCEC)

+44 1235 239671 (Middle East/Africa, call and response in your language)

+1 215 207 0061 (Americas, call and response in your language)

+65 3158 1074 (Asia-Pacific, call and response in your language)

### SECTION 2: Hazards identification

#### GHS Classification

: Specific target organ toxicity - single exposure, Category 3,  
Respiratory system, Central nervous system, H335H336  
Long-term (chronic) aquatic hazard, Category 2, H411

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**GHS-Labeling**

Symbol(s)



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

 : **Prevention:**  
 P261 Avoid breathing dust.  
 P271 Use only outdoors or in a well-ventilated area.  
 P273 Avoid release to the environment.  
**Response:**  
 P304 + P340 + P319 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical help if you feel unwell.  
 P391 Collect spillage.  
**Storage:**  
 P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
 P405 Store locked up.  
**Disposal:**  
 P501 Dispose of contents/ container to an approved waste disposal plant.

**Hazardous components which must be listed on the label**

Identification	CAS-No.
Solvent naphtha (petroleum), light arom.	64742-95-6

**Other hazards which do not result in classification**

Combustible Solids

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**SECTION 3: Composition/information on ingredients**

Substance No. :

**Hazardous components**

Chemical name	CAS-No. EINECS-No.	Classification and labelling	Concentration[%]
aluminium	7429-90-5 231-072-3	Flam. Sol.;1;H228	50 - 100
Solvent naphtha (petroleum), light arom.	64742-95-6 918-668-5	Flam. Liq.;3;H226 Acute Tox.;5;H303 Acute Tox.;5;H313 STOT SE;3;H335, H336 Asp. Tox.;1;H304 Aquatic Chronic;2;H411	25 - 50
Naphtha (petroleum), hydrotreated heavy	64742-48-9 918-481-9	Flam. Liq.;4;H227 Asp. Tox.;1;H304	1 - 10

For the full text of the H-Statements mentioned in this Section, 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 : 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.
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.
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**

This information is not available.

**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	: 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.
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**5.3 Advice for firefighters**

Special protective equipment for firefighters	: Use personal protective equipment.
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Wear self-contained breathing apparatus for firefighting if necessary.

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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.

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

**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.

This information is not available.

**6.3 Methods and materials 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 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

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storage. Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

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**
**Germany:**

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Update	Basis
aluminium	7429-90-5	AGW (Inhalable fraction)	10 mg/m <sup>3</sup>	2021-07-02	DE TRGS 900
Peak-limit: excursion factor (category)		2;(II)			
Further information		When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
aluminium	7429-90-5	AGW (Alveolate fraction)	1,25 mg/m <sup>3</sup>	2021-07-02	DE TRGS 900
Peak-limit: excursion factor (category)		2;(II)			
Further information		When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
Solvent naphtha (petroleum), light arom.	64742-95-6	AGW	100 mg/m <sup>3</sup>	2009-02-16	DE TRGS 900
Peak-limit: excursion factor (category)		2;(II)			

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Further information		Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances See also No. 2.9 of the TRGS 900			
Naphtha (petroleum), hydrotreated heavy	64742-48-9	AGW	300 mg/m <sup>3</sup>	2017-11-30	DE TRGS 900
Peak-limit: excursion factor (category)		2;(II)			
Further information		Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances See also No. 2.9 of the TRGS 900			

### United States of America (USA):

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Update	Basis
aluminium	7429-90-5	TWA (total dust)	50 Million particles per cubic foot	2012-07-01	
aluminium	7429-90-5	TWA (Respirable)	5 mg/m <sup>3</sup>	2013-10-08	
aluminium	7429-90-5	TWA (total dust)	15 mg/m <sup>3</sup>	2012-07-01	
aluminium	7429-90-5	TWA (total)	10 mg/m <sup>3</sup>	2013-10-08	
aluminium	7429-90-5	TWA (respirable fraction)	5 mg/m <sup>3</sup>	2012-07-01	
aluminium	7429-90-5	TWA (respirable fraction)	15 Million particles per cubic foot	2012-07-01	
aluminium	7429-90-5	PEL (Total dust)	10 mg/m <sup>3</sup>	2014-11-26	
aluminium	7429-90-5	PEL (respirable dust fraction)	5 mg/m <sup>3</sup>	2014-11-26	
aluminium	7429-90-5	TWA (Respirable particulate matter)	1 mg/m <sup>3</sup>	2008-01-01	
aluminium	7429-90-5	TWA	5 mg/m <sup>3</sup>	2005-09-01	
aluminium	7429-90-5	TWA (Total)	15 mg/m <sup>3</sup>	1989-01-19	
aluminium	7429-90-5	TWA (Respirable fraction)	5 mg/m <sup>3</sup>	1989-01-19	



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aluminium	7429-90-5	TWA (total dust)	15 mg/m <sup>3</sup>	2011-07-01	
aluminium	7429-90-5	TWA (respirable fraction)	5 mg/m <sup>3</sup>	2011-07-01	
aluminium	7429-90-5	TWA (Total dust)	15 mg/m <sup>3</sup>	1989-01-19	
aluminium	7429-90-5	TWA (respirable dust fraction)	5 mg/m <sup>3</sup>	1989-01-19	
aluminium	7429-90-5	TWA (welding fumes)	5 mg/m <sup>3</sup>	2013-10-08	
aluminium	7429-90-5	TWA (pyro powders)	5 mg/m <sup>3</sup>	2013-10-08	
aluminium	7429-90-5	TWA (Respirable particulate matter)	1 mg/m <sup>3</sup>	2013-03-01	
aluminium	7429-90-5	TWA (Fumes)	5 mg/m <sup>3</sup>	1989-01-19	
aluminium	7429-90-5	PEL (Welding fumes)	5 mg/m <sup>3</sup>	2017-10-02	
aluminium	7429-90-5	PEL (Pyro powders)	5 mg/m <sup>3</sup>	2017-10-02	
aluminium	7429-90-5	TWA (powder)	5 mg/m <sup>3</sup>	1989-01-19	
Solvent naphtha (petroleum), light arom.	64742-95-6	TWA	500 ppm 2 000 mg/m <sup>3</sup>	2007-01-01	
Solvent naphtha (petroleum), light arom.	64742-95-6	TWA	200 mg/m <sup>3</sup>	2010-03-01	
Solvent naphtha (petroleum), light arom.	64742-95-6	TWA	400 ppm 1 600 mg/m <sup>3</sup>	1989-01-19	
Naphtha (petroleum), hydrotreated heavy	64742-48-9	TWA	500 ppm 2 000 mg/m <sup>3</sup>	2007-01-01	
Naphtha (petroleum), hydrotreated	64742-48-9	TWA	400 ppm 1 600 mg/m <sup>3</sup>	1989-01-19	

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### 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 : The suitability for a specific workplace should be discussed with the producers of the protective gloves.  
: Long sleeved clothing  
Safety shoes  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- 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.

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- : 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/m<sup>3</sup>.

**Environmental exposure controls**

- 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.

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

Appearance	: Pasty solid
Colour	: silver
Odour	: characteristic
pH	: substance/mixture is non-soluble (in water)
Freezing point	: No data available
Boiling point/boiling range	: 140 - 200 °C
Flash point	: No data available
Bulk density	: No data available
Flammability (solid, gas)	: Combustible Solids
Auto-flammability	: not auto-flammable
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: No data available

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Density	: 1,3 - 2,0 g/cm <sup>3</sup>
Solubility(ies)	
Water solubility	: insoluble
Miscibility with water	: immiscible
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Ignition temperature	: No data available
Thermal decomposition	: No data available
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Flow time	: No data available
Explosive properties	: Not explosive

**9.2 Other information**

Self-Accelerating decomposition temperature (SADT)	: No data available
Self-heating substances	: No data available
Heat of combustion	: No data available
Impact sensitivity	: No data available
Surface tension	: No data available
Conductivity	: No data available
Sublimation point	: No data available
Molecular weight	: 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.

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**

Other information : No data available

**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

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

Acute oral toxicity : LD50 Rat: 3 492 mg/kg

Acute dermal toxicity : LD50 Rabbit: &gt; 3 160 mg/kg

**Naphtha (petroleum), hydrotreated heavy :**

Acute oral toxicity : LD50 Rat: &gt; 5 000 mg/kg

Acute inhalation toxicity : LC50 Rat: Test atmosphere: vapour

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: &gt; 5 000 mg/kg

**Skin corrosion/irritation**

No data available

**Serious eye damage/eye irritation****Product**

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

**Respiratory or skin sensitisation**

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No data available

### **Carcinogenicity**

No data available

### **Toxicity to reproduction/fertility**

No data available

### **Reprod.Tox./Development/Teratogenicity**

No data available

### **STOT - single exposure**

No data available

### **STOT - repeated exposure**

No data available

### **Aspiration toxicity**

No data available

### **Further information**

#### **Product**

No data available

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## **SECTION 12: Ecological information**

### **12.1 Toxicity**

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### Components:

**Solvent naphtha (petroleum), light arom. (64742-95-6) :**

### **Ecotoxicology Assessment**

Long-term (chronic) aquatic hazard : Toxic to aquatic life with long lasting effects.

### **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**

No data available

### **12.6 Other adverse effects**

#### Product:

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

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## **SECTION 13: Disposal considerations**



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**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.

**SECTION 14: Transport information**
**14.1 UN number**
**ADR** : 3077

**TDG**

Not dangerous goods

**CFR**

Not dangerous goods

**IMDG** : 3077

**IATA** : 3077

**14.2 Proper shipping name**
**ADR** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,  
 N.O.S.  
 (aromatic hydrocarbons )

**TDG**

Not dangerous goods

**CFR**

Not dangerous goods

**IMDG** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

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**IATA** : N.O.S.  
(aromatic hydrocarbons )  
: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,  
N.O.S.  
(aromatic hydrocarbons)

### 14.3 Transport hazard class

**ADR** : 9

**TDG**

Not dangerous goods

**CFR**

Not dangerous goods

**IMDG** : 9

**IATA** : 9

### 14.4 Packing group

**ADR**

Packaging group : III

Classification Code : M7

Hazard Identification Number : 90

Labels : 9

Tunnel restriction code : (-)

**TDG**

Not dangerous goods

**CFR**

Not dangerous goods

**IMDG**

Packaging group : III

Labels : 9

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EmS Code : F-A, S-F

**IATA**Packing instruction (cargo  
aircraft) : 956Packing instruction  
(passenger aircraft) : 956

Packing instruction (LQ) : Y956

Packaging group : III

Labels : 9

**14.5 Environmental hazards****IMDG** : Marine pollutant**ADR** : Environmentally hazardous**14.6 Special precautions for user****IMDG Code- segregation group:**

: IMDG Code segregation group 7 - Heavy metals and their salts

For single packagings  $\leq 5L / 5 \text{ kg}$ , or combination packagings containing inner packagings  $\leq 5L / 5 \text{ kg}$  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**

No data available

**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 : Not applicable

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Concern for Authorisation (Article 59).

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

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast) : Not applicable

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Banned and/or restricted (aluminium powder (stabilised)) (Solvent naphtha (petroleum), light arom.) (Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha)

### 15.2 Chemical safety assessment

No data available

## SECTION 16: Other information

### Full text of H-Statements

H226 : Flammable liquid and vapour.  
 H227 : Combustible liquid.  
 H228 : Flammable solid.  
 H303 : May be harmful if swallowed.  
 H304 : May be fatal if swallowed and enters airways.  
 H313 : May be harmful in contact with skin.  
 H335 : May cause respiratory irritation.  
 H336 : May cause drowsiness or dizziness.  
 H411 : Toxic to aquatic life with long lasting effects.

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

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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.