

**SILVERSHINE 412 Aluminium Paste**

Version 1.1      Revision Date: 09/14/2018      SDS Number: 102000024923      Date of last issue: 03/27/2018  
Date of first issue: 03/27/2018

---

**SECTION 1. IDENTIFICATION**

Product name : SILVERSHINE 412 Aluminium Paste  
Product code : 022579G60

**Manufacturer or supplier's details**

Company name of supplier : ECKART GmbH  
Address : Guentersthal 4  
Hartenstein 91235  
Telephone : +499152770  
Telefax : +499152777008  
Emergency telephone : CHEMTREC: 800-424-9300  
CHEMTREC: 1-703-527-3387 (International)

GBK Gefahrgut Buero 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

---

**SECTION 2. HAZARDS IDENTIFICATION****GHS classification in accordance with the Hazardous Products Regulations**

Specific target organ systemic toxicity - single exposure : Category 3 (Respiratory system)

**GHS label elements**

Hazard pictograms :



Signal Word : Warning

Hazard Statements : H335 May cause respiratory irritation.

## SILVERSHINE 412 Aluminium Paste

Version	Revision Date:	SDS Number:	Date of last issue: 03/27/2018
1.1	09/14/2018	102000024923	Date of first issue: 03/27/2018

Precautionary Statements :

**Prevention:**

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P271 Use only outdoors or in a well-ventilated area.

**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.

**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.

**Other hazards**

None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS****Hazardous ingredients**

Chemical name	CAS-No.	Concentration (% w/w)
Aluminum	7429-90-5	>= 50 - < 70
Solvent naphtha (petroleum), light arom.	64742-95-6	>= 20 - < 30
Naphtha (petroleum), hydrotreated heavy	64742-48-9	>= 10 - < 20

**SECTION 4. FIRST AID MEASURES**

General advice : Take the victim into fresh air.  
Do not leave the victim unattended.  
Move out of dangerous area.  
Show this material safety data sheet to the doctor in attendance.

If inhaled : If unconscious, place in recovery position and seek medical advice.  
If symptoms persist, call a physician.

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

## SILVERSHINE 412 Aluminium Paste

Version	Revision Date:	SDS Number:	Date of last issue: 03/27/2018
1.1	09/14/2018	102000024923	Date of first issue: 03/27/2018

---

- 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 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.
- Most important symptoms and effects, both acute and delayed : May cause respiratory irritation.

---

### SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Dry sand  
Special powder against metal fire
- Unsuitable extinguishing media : Water  
Foam  
ABC powder  
Carbon dioxide (CO<sub>2</sub>)
- Specific hazards during fire fighting : Do not allow run-off from fire fighting to enter drains or water courses.
- 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.
- Special protective equipment for fire-fighters : Use personal protective equipment.
- Wear self-contained breathing apparatus for firefighting if necessary.

---

### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.  
Use personal protective equipment.  
Remove all sources of ignition.

## SILVERSHINE 412 Aluminium Paste

Version	Revision Date:	SDS Number:	Date of last issue: 03/27/2018
1.1	09/14/2018	102000024923	Date of first issue: 03/27/2018

---

Use personal protective equipment.  
Avoid dust formation.

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.

Methods and materials for containment and 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.

---

### SECTION 7. HANDLING AND STORAGE

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.

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.  
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.

Conditions for safe storage :

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.

## SILVERSHINE 412 Aluminium Paste

Version 1.1      Revision Date: 09/14/2018      SDS Number: 102000024923      Date of last issue: 03/27/2018  
 Date of first issue: 03/27/2018

Observe label precautions.  
 Electrical installations / working materials must comply with the technological safety standards.

Materials to avoid : 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.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

## Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Aluminum	7429-90-5	TWAEV	10 mg/m3	CA QC OEL
		TWA	10 mg/m3	CA AB OEL
		TWA (Respirable)	1 mg/m3	CA BC OEL
		TWA (Dust)	10 mg/m3	CA AB OEL
		TWAEV	10 mg/m3	CA QC OEL
		TWA (Respirable)	1 mg/m3 (Aluminum)	CA BC OEL
		TWAEV (Fumes)	5 mg/m3 (Aluminum)	CA QC OEL
		TWA (Respirable fraction)	1 mg/m3	ACGIH
		TWA (Respirable fraction)	1 mg/m3 (Aluminum)	ACGIH
Solvent naphtha (petroleum), light arom.	64742-95-6	TWA	200 mg/m3 (total hydrocarbon vapor)	CA AB OEL
		TWA	200 mg/m3 (total hydrocarbon vapor)	ACGIH

## SILVERSHINE 412 Aluminium Paste

Version	Revision Date:	SDS Number:	Date of last issue: 03/27/2018
1.1	09/14/2018	102000024923	Date of first issue: 03/27/2018

---

Naphtha (petroleum), hydrotreated heavy	64742-48-9	TWA	525 mg/m3	CA ON OEL
---	------------	-----	-----------	-----------

**Personal protective equipment**

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.

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.

Eye protection : Safety glasses

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.

Hygiene measures : Wash hands before breaks and at the end of workday.

---

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**


---

## SILVERSHINE 412 Aluminium Paste

Version	Revision Date:	SDS Number:	Date of last issue: 03/27/2018
1.1	09/14/2018	102000024923	Date of first issue: 03/27/2018

---

Appearance	:	Pasty solid
Color	:	silver
Odor	:	characteristic
Odor Threshold	:	No data available
pH	:	No data available
Melting point/freezing point	:	No data available
Initial boiling point and 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
Burning number	:	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 density	:	No data available
Density	:	1.3 - 2.0 g/cm <sup>3</sup>
Solubility(ies)		
Water solubility	:	insoluble
Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Explosive properties	:	Not explosive Not explosive

---

### SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of 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. Vapor/air-mixtures are explosive at intense warming. Stable under recommended storage conditions.

**SILVERSHINE 412 Aluminium Paste**

Version	Revision Date:	SDS Number:	Date of last issue: 03/27/2018
1.1	09/14/2018	102000024923	Date of first issue: 03/27/2018

---

Conditions to avoid : Do not allow to dry.  
No data available

Incompatible materials : Acids  
Bases  
Oxidizing agents  
Highly halogenated compounds

---

**SECTION 11. TOXICOLOGICAL INFORMATION****Acute toxicity**

Not classified based on available information.

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

Acute oral toxicity : LD50 (Rat): 3,492 mg/kg  
Acute dermal toxicity : LD50 (Rabbit): > 3,160 mg/kg

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

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

**Skin corrosion/irritation**

Not classified based on available information.

**Serious eye damage/eye irritation**

Not classified based on available information.

**Respiratory or skin sensitization****Skin sensitization**

Not classified based on available information.

**Respiratory sensitization**

Not classified based on available information.



**SILVERSHINE 412 Aluminium Paste**

Version	Revision Date:	SDS Number:	Date of last issue: 03/27/2018
1.1	09/14/2018	102000024923	Date of first issue: 03/27/2018

---

**Germ cell mutagenicity**

Not classified based on available information.

**Carcinogenicity**

Not classified based on available information.

**Reproductive toxicity**

Not classified based on available information.

**STOT-single exposure**

May cause respiratory irritation.

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

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

**STOT-repeated exposure**

Not classified based on available information.

**Aspiration toxicity**

Not classified based on available information.

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

May be fatal if swallowed and enters airways.

**Further information****Components:****Naphtha (petroleum), hydrotreated heavy:**

Remarks: Solvents may degrease the skin.

---

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Components:****Solvent naphtha (petroleum), light arom.:****Ecotoxicology Assessment**

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

**SILVERSHINE 412 Aluminium Paste**

Version            Revision Date:            SDS Number:            Date of last issue: 03/27/2018  
1.1                09/14/2018                102000024923            Date of first issue: 03/27/2018

---

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Other adverse effects**

No data available

**Components:****Naphtha (petroleum), hydrotreated heavy:**Additional ecological            : No data available  
information

---

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

- Waste from residues            : 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****Domestic regulation****TDG**

Not regulated as a dangerous good

**International Regulations****IATA-DGR**

UN/ID No.                        : UN 3077  
Proper shipping name            : Environmentally hazardous substance, solid, n.o.s.  
(aromatic hydrocarbons)  
Class                                : 9  
Packing group                    : III  
Labels                              : Miscellaneous Dangerous Goods

## SILVERSHINE 412 Aluminium Paste

Version	Revision Date:	SDS Number:	Date of last issue: 03/27/2018
1.1	09/14/2018	102000024923	Date of first issue: 03/27/2018

---

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

**IMDG-Code**

UN number : UN 3077  
 Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (aromatic hydrocarbons)

Class : 9  
 Packing group : III  
 Labels : 9  
 EmS Code : F-A, S-F  
 Marine pollutant : yes  
 Remarks : IMDG Code segregation group 7 - Heavy metals and their salts

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.

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

Not applicable for product as supplied.

---

## SECTION 15. REGULATORY INFORMATION

**Canadian PBT Chemicals** : This product contains the following components on the DSL that are classified as Persistent, Bioaccumulative and/or Toxic (PBT) under CEPA:  
 Naphtha (petroleum), hydrotreated heavy

**NPRI Components** : Aluminum

### The ingredients of this product are reported in the following inventories:

DSL : All components of this product are on the Canadian DSL

TSCA : On TSCA Inventory

### Canadian lists

No substances are subject to a Significant New Activity Notification.

---

## SECTION 16. OTHER INFORMATION

### Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)

## SILVERSHINE 412 Aluminium Paste

Version	Revision Date:	SDS Number:	Date of last issue: 03/27/2018
1.1	09/14/2018	102000024923	Date of first issue: 03/27/2018

---

CA AB OEL : Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)

CA BC OEL : Canada. British Columbia OEL

CA ON OEL : Ontario Table of Occupational Exposure Limits made under the Occupational Health and Safety Act.

CA QC OEL : Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants

ACGIH / TWA : 8-hour, time-weighted average

CA AB OEL / TWA : 8-hour Occupational exposure limit

CA BC OEL / TWA : 8-hour time weighted average

CA ON OEL / TWA : Time-Weighted Average Limit (TWA)

CA QC OEL / TWAEV : Time-weighted average exposure value

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; CPR - Controlled Products Regulations; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); 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; ERG - Emergency Response Guide; 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; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; 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; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; 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; WHMIS - Workplace Hazardous Materials Information System

Revision Date : 09/14/2018

**SILVERSHINE 412 Aluminium Paste**

Version	Revision Date:	SDS Number:	Date of last issue: 03/27/2018
1.1	09/14/2018	102000024923	Date of first issue: 03/27/2018

---

The information provided in this Material 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.

CA / Z8