

SILVERSHINE 415 Aluminium Paste

Version 1.0 Revision Date: 03/21/2018 SDS Number: 102000020055 Date of last issue: -
 Date of first issue: 03/21/2018

SECTION 1. IDENTIFICATION

Product name : SILVERSHINE 415 Aluminium Paste

Product code : 023547G60

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 29 CFR 1910.1200

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

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
Naphtha (petroleum), hydrotreated heavy	64742-48-9	>= 10 - < 20
Solvent naphtha (petroleum), light arom.	64742-95-6	>= 10 - < 20

SILVERSHINE 415 Aluminium Paste

Version Revision Date: SDS Number: Date of last issue: -
1.0 03/21/2018 102000020055 Date of first issue: 03/21/2018

SECTION 4. FIRST AID MEASURES

- General advice : Take the victim into fresh air.
Do not leave the victim unattended.
No hazards which require special first aid measures.
- If inhaled : If unconscious, place in recovery position and seek medical
advice.
If symptoms persist, call a physician.
- : 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.
- In case of eye contact : Immediately flush eye(s) with plenty of water.
- : Remove contact lenses.
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 : None known.
and effects, both acute and
delayed
-

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Dry sand
Special powder against metal fire
- Unsuitable extinguishing : Water
media : Foam
 : ABC powder
 : Carbon dioxide (CO₂)
- Specific hazards during fire : Do not allow run-off from fire fighting to enter drains or water
fighting : courses.
- Further information : Collect contaminated fire extinguishing water separately. This
 : must not be discharged into drains.
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SILVERSHINE 415 Aluminium Paste

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	03/21/2018	102000020055	Date of first issue: 03/21/2018

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.
Avoid dust formation.

Environmental precautions : Prevent product from entering drains.
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).

Sweep up and shovel.
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.

Normal measures for preventive fire protection.

Advice on safe handling : Keep away from heat and sources of ignition.
Avoid dust formation.
Ensure adequate ventilation.

For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.

SILVERSHINE 415 Aluminium Paste

Version 1.0 Revision Date: 03/21/2018 SDS Number: 102000020055 Date of last issue: -
 Date of first issue: 03/21/2018

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.

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

Technical measures/Precautions : Protect from humidity and water.
 Do not allow to dry.

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

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Aluminum	7429-90-5	TWA (total dust)	50 Million particles per cubic foot	OSHA Z-3
		TWA (Respirable)	5 mg/m ³	NIOSH REL
		TWA (total dust)	15 mg/m ³	OSHA Z-3
		TWA (total)	10 mg/m ³	NIOSH REL
		TWA (respirable fraction)	5 mg/m ³	OSHA Z-3
		TWA (respirable fraction)	15 Million particles per cubic foot	OSHA Z-3
		TWA (Respirable fraction)	1 mg/m ³	ACGIH

SILVERSHINE 415 Aluminium Paste

Version 1.0 Revision Date: 03/21/2018 SDS Number: 102000020055 Date of last issue: -
 Date of first issue: 03/21/2018

		TWA	5 mg/m3 (Aluminum)	NIOSH REL
		TWA (Total)	15 mg/m3 (Aluminum)	OSHA P0
		TWA (Respirable fraction)	5 mg/m3 (Aluminum)	OSHA P0
		TWA (total dust)	15 mg/m3 (Aluminum)	OSHA Z-1
		TWA (respirable fraction)	5 mg/m3 (Aluminum)	OSHA Z-1
		TWA (Total dust)	15 mg/m3 (Aluminum)	OSHA P0
		TWA (respirable dust fraction)	5 mg/m3 (Aluminum)	OSHA P0
		TWA (welding fumes)	5 mg/m3 (Aluminum)	NIOSH REL
		TWA (pyro powders)	5 mg/m3 (Aluminum)	NIOSH REL
		TWA (Respirable fraction)	1 mg/m3 (Aluminum)	ACGIH
		TWA (Fumes)	5 mg/m3	OSHA P0
Naphtha (petroleum), hydrotreated heavy	64742-48-9	TWA	500 ppm 2,000 mg/m3	OSHA Z-1
		TWA	400 ppm 1,600 mg/m3	OSHA P0
Solvent naphtha (petroleum), light arom.	64742-95-6	TWA	500 ppm 2,000 mg/m3	OSHA Z-1
		TWA	200 mg/m3 (total hydrocarbon vapor)	ACGIH
		TWA	400 ppm 1,600 mg/m3	OSHA P0
Aluminum	7429-90-5	TWA (total dust)	50 Million particles per cubic foot	OSHA Z-3
		TWA (Respirable)	5 mg/m3	NIOSH REL
		TWA (total)	15 mg/m3	OSHA Z-3

SILVERSHINE 415 Aluminium Paste

Version 1.0 Revision Date: 03/21/2018 SDS Number: 102000020055 Date of last issue: -
 Date of first issue: 03/21/2018

		dust)		
		TWA (total)	10 mg/m ³	NIOSH REL
		TWA (respirable fraction)	5 mg/m ³	OSHA Z-3
		TWA (respirable fraction)	15 Million particles per cubic foot	OSHA Z-3
		TWA (Respirable fraction)	1 mg/m ³	ACGIH
		TWA	5 mg/m ³ (Aluminum)	NIOSH REL
		TWA (Total)	15 mg/m ³ (Aluminum)	OSHA P0
		TWA (Respirable fraction)	5 mg/m ³ (Aluminum)	OSHA P0
		TWA (total dust)	15 mg/m ³ (Aluminum)	OSHA Z-1
		TWA (respirable fraction)	5 mg/m ³ (Aluminum)	OSHA Z-1
		TWA (Total dust)	15 mg/m ³ (Aluminum)	OSHA P0
		TWA (respirable dust fraction)	5 mg/m ³ (Aluminum)	OSHA P0
		TWA (welding fumes)	5 mg/m ³ (Aluminum)	NIOSH REL
		TWA (pyro powders)	5 mg/m ³ (Aluminum)	NIOSH REL
		TWA (Respirable fraction)	1 mg/m ³ (Aluminum)	ACGIH
		TWA (Fumes)	5 mg/m ³	OSHA P0
Naphtha (petroleum), hydrotreated heavy	64742-48-9	TWA	500 ppm 2,000 mg/m ³	OSHA Z-1
		TWA	400 ppm 1,600 mg/m ³	OSHA P0
Solvent naphtha (petroleum), light arom.	64742-95-6	TWA	500 ppm 2,000 mg/m ³	OSHA Z-1

SILVERSHINE 415 Aluminium Paste

Version 1.0 Revision Date: 03/21/2018 SDS Number: 102000020055 Date of last issue: -
 Date of first issue: 03/21/2018

		TWA	200 mg/m ³ (total hydrocarbon vapor)	ACGIH
		TWA	400 ppm 1,600 mg/m ³	OSHA P0

Personal protective equipment

Respiratory protection : Use suitable breathing protection if workplace concentration requires.

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 : General industrial hygiene practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Pasty solid
Color : silver
Odor : characteristic
Odor Threshold : No data available
pH : No data available
Melting point/freezing point : No data available

SILVERSHINE 415 Aluminium Paste

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	03/21/2018	102000020055	Date of first issue: 03/21/2018

Boiling point/boiling range	:	162 °C
Flash point	:	No data available
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Combustible Solids
Auto-flammability	:	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 ³
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

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.
Conditions to avoid	:	Do not allow to dry. No data available
Incompatible materials	:	Acids Bases Oxidizing agents Highly halogenated compounds

SILVERSHINE 415 Aluminium Paste

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	03/21/2018	102000020055	Date of first issue: 03/21/2018

SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity**

Not classified based on available information.

Ingredients:**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

Solvent naphtha (petroleum), light arom.:

Acute oral toxicity : LD50 (Rat): 3,492 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 3,160 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.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

IARC

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

SILVERSHINE 415 Aluminium Paste

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	03/21/2018	102000020055	Date of first issue: 03/21/2018

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

STOT-single exposure

Not classified based on available information.

Ingredients:**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.

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

May be fatal if swallowed and enters airways.

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

Remarks: Solvents may degrease the skin.

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

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

SILVERSHINE 415 Aluminium Paste

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	03/21/2018	102000020055	Date of first issue: 03/21/2018

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Other adverse effects

No data available

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

Additional ecological information : No data available

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**Waste from residues : The product should not be allowed to enter drains, water courses or the soil.
In accordance with local and national regulations.

Contaminated packaging : In accordance with local and national regulations.

SECTION 14. TRANSPORT INFORMATION**International Regulations**

Remarks : Not classified as dangerous in the meaning of transport regulations.

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

Not applicable for product as supplied.

Domestic regulation

SECTION 15. REGULATORY INFORMATION**EPCRA - Emergency Planning and Community Right-to-Know****CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SILVERSHINE 415 Aluminium Paste

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	03/21/2018	102000020055	Date of first issue: 03/21/2018

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

Aluminum	7429-90-5	>= 50 - < 70 %
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Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations

Massachusetts Right To Know

Aluminum	7429-90-5
Solvent naphtha (petroleum), light arom.	64742-95-6
Fatty acids, C14-18 and C16-18-unsatd.	67701-06-8

Pennsylvania Right To Know

Aluminum	7429-90-5
Naphtha (petroleum), hydrotreated heavy	64742-48-9
Solvent naphtha (petroleum), light arom.	64742-95-6
Fatty acids, C14-18 and C16-18-unsatd.	67701-06-8

California Prop. 65

SILVERSHINE 415 Aluminium Paste

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	03/21/2018	102000020055	Date of first issue: 03/21/2018



WARNING: This product can expose you to chemicals including lead and cadmium, which is/are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California List of Hazardous Substances

Aluminum 7429-90-5

California Permissible Exposure Limits for Chemical Contaminants

Aluminum 7429-90-5

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

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
 NIOSH REL : USA. NIOSH Recommended Exposure Limits
 OSHA P0 : USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
 OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
 OSHA Z-3 : USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
 ACGIH / TWA : 8-hour, time-weighted average
 NIOSH REL / TWA : Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
 OSHA P0 / TWA : 8-hour time weighted average
 OSHA Z-1 / TWA : 8-hour time weighted average
 OSHA Z-3 / TWA : 8-hour time weighted average

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic

SILVERSHINE 415 Aluminium Paste

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	03/21/2018	102000020055	Date of first issue: 03/21/2018

Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; 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; HMIS - Hazardous Materials Identification System; 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance 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

Revision Date : 03/21/2018

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.

US / Z8