

SILVERSHINE 415 Aluminium Paste

Version 3.1

Revision Date 29.04.2022

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Trade name : SILVERSHINE 415 Aluminium Paste
Material number : 023547G60

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
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**

: Long-term (chronic) aquatic hazard, Category 3, H412

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GHS-Labeling

Hazard statements : H412: Harmful to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**
P273 Avoid release to the environment.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label

Other hazards which do not result in classification

Combustible Solids

SECTION 3: Composition/information on ingredients

Substance No. :

Hazardous components

| Chemical name | CAS-No. EINECS-No. | Classification and labelling | Concentration[%] |
|--|-------------------------|--|------------------|
| aluminium powder (stabilised) | 7429-90-5 231-072-3 | Flam. Sol.;1;H228 | 50 - 100 |
| Naphtha (petroleum), hydrotreated heavy; Low boiling point ydrogen treated naphtha | 64742-48-9 918-481-9 | Flam. Liq.;4;H227 Asp. Tox.;1;H304 | 10 - 20 |
| 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 | 5 - 20 |

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| | | | |
|--|-------------------------|---|----------|
| | | Aquatic Chronic;2;H411 | |
| aluminium powder (stabilised) | 7429-90-5 231-072-3 | Flam. Sol.;1;H228 | 50 - 100 |
| Naphtha (petroleum), hydrotreated heavy; Low boiling point ydrogen treated naphtha | 64742-48-9 918-481-9 | Flam. Liq.;4;H227 Asp. Tox.;1;H304 | 10 - 20 |
| 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 | 10 - 20 |

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.
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

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- 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 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 (CO₂)

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 : Use personal protective equipment.

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for firefighters

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.

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.
Avoid dust formation.

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.
If the product contaminates rivers and lakes or drains inform respective authorities.

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).

Sweep up and shovel.
Do not flush with water.
Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

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For personal protection see section 8.

SECTION 7: Handling and storage
7.1 Precautions for safe handling

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

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

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.

Hygiene measures : General industrial hygiene practice.

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.

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.

Other data : No decomposition if stored and applied as directed.

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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 powder (stabilised) | 7429-90-5 | AGW (Inhalable fraction) | 10 mg/m ³ | 2014-04-02 | DE TRGS 900 |
| Peak-limit: excursion factor (category) | | 2;(II) | | | |
| aluminium powder (stabilised) | 7429-90-5 | AGW (Alveolate fraction) | 1,25 mg/m ³ | 2014-04-02 | DE TRGS 900 |
| Peak-limit: excursion factor (category) | | 2;(II) | | | |
| Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha | 64742-48-9 | AGW | 300 mg/m ³ | 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 | | | |
| Solvent | 64742-95- | AGW | 100 mg/m ³ | 2009-02-16 | DE TRGS 900 |

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|---|--|--|--|--|--|
| naphtha (petroleum), light arom. | 6 | | | | |
| 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 powder (stabilised) | 7429-90-5 | TWA (total dust) | 50 Million particles per cubic foot | 2012-07-01 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (Respirable) | 5 mg/m ³ | 2013-10-08 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (total dust) | 15 mg/m ³ | 2012-07-01 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (total) | 10 mg/m ³ | 2013-10-08 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (respirable fraction) | 5 mg/m ³ | 2012-07-01 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (respirable fraction) | 15 Million particles per cubic foot | 2012-07-01 | |
| aluminium powder (stabilised) | 7429-90-5 | PEL (Total dust) | 10 mg/m ³ | 2014-11-26 | |
| aluminium powder (stabilised) | 7429-90-5 | PEL (respirable dust fraction) | 5 mg/m ³ | 2014-11-26 | |
| aluminium | 7429-90-5 | TWA | 1 mg/m ³ | 2008-01-01 | |

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|-------------------------------|-----------|-------------------------------------|----------|------------|--|
| powder (stabilised) | | (Respirable particulate matter) | | | |
| aluminium powder (stabilised) | 7429-90-5 | TWA | 5 mg/m3 | 2005-09-01 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (Total) | 15 mg/m3 | 1989-01-19 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (Respirable fraction) | 5 mg/m3 | 1989-01-19 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (total dust) | 15 mg/m3 | 2011-07-01 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (respirable fraction) | 5 mg/m3 | 2011-07-01 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (Total dust) | 15 mg/m3 | 1989-01-19 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (respirable dust fraction) | 5 mg/m3 | 1989-01-19 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (welding fumes) | 5 mg/m3 | 2013-10-08 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (pyro powders) | 5 mg/m3 | 2013-10-08 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (Respirable particulate matter) | 1 mg/m3 | 2013-03-01 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (Fumes) | 5 mg/m3 | 1989-01-19 | |
| aluminium powder | 7429-90-5 | PEL (Welding fumes) | 5 mg/m3 | 2017-10-02 | |

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| | | | | | |
|---|------------|--------------------|------------------------------------|------------|--|
| (stabilised) aluminium powder (stabilised) | 7429-90-5 | PEL (Pyro powders) | 5 mg/m ³ | 2017-10-02 | |
| Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha | 64742-48-9 | TWA | 500 ppm 2 000 mg/m ³ | 2007-01-01 | |
| Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha | 64742-48-9 | TWA | 400 ppm 1 600 mg/m ³ | 1989-01-19 | |
| Solvent naphtha (petroleum), light arom. | 64742-95-6 | TWA | 500 ppm 2 000 mg/m ³ | 2007-01-01 | |
| Solvent naphtha (petroleum), light arom. | 64742-95-6 | TWA | 200 mg/m ³ | 2010-03-01 | |
| Solvent naphtha (petroleum), light arom. | 64742-95-6 | TWA | 400 ppm 1 600 mg/m ³ | 1989-01-19 | |

8.2 Exposure controls

Personal protective equipment

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

Environmental exposure controls

- General advice :
- : Prevent product from entering drains.
If the product contaminates rivers and lakes or drains inform

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respective authorities.

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**

| | |
|-----------------------------|---|
| Appearance | : Pasty solid |
| Colour | : silver |
| Odour | : characteristic |
| pH | : substance/mixture is non-soluble (in water) |
| Freezing point | : No data available |
| Boiling point/boiling range | : 162 °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 |
| Density | : 1,3 - 2,0 g/cm ³ |
| Solubility(ies) | |
| Water solubility | : insoluble |

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| | |
|--|---------------------|
| 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 |

SECTION 10: Stability and reactivity**10.1 Reactivity**

No decomposition if stored and applied as directed.

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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

Hazardous decomposition products : No data available

Other information : No data available

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

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Components:**Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha :**

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

Acute inhalation toxicity : LC50 Rat: Test atmosphere: 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: > 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

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

No data available

Carcinogenicity

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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

SECTION 12: Ecological information

12.1 Toxicity

Components:

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

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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., Harmful to aquatic life with long lasting effects.

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

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

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In accordance with local and national regulations.

Contaminated packaging : In accordance with local and national regulations.

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

Not dangerous goods

TDG

Not dangerous goods

CFR

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.2 Proper shipping name**ADR**

Not dangerous goods

TDG

Not dangerous goods

CFR

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

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14.3 Transport hazard class

ADR

Not dangerous goods

TDG

Not dangerous goods

CFR

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.4 Packing group

ADR

Not dangerous goods

TDG

Not dangerous goods

CFR

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.5 Environmental hazards

14.6 Special precautions for user

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Not classified as dangerous in the meaning of transport regulations.

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 Concern for Authorisation (Article 59). | : 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, preparations and articles (Annex XVII) | : Banned and/or restricted (aluminium powder (stabilised)) (Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha) (Solvent naphtha (petroleum), light arom.) |

15.2 Chemical safety assessment

No data available

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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. |
| H412 | : Harmful 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 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.