

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

SILVERSHINE 408 Aluminiumpaste

Version 3.0

Revision Date 10.03.2020

Print Date 06.08.2020

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

1.1 Product identifier

Trade name : SILVERSHINE 408 Aluminiumpaste
Material number : 023722G60

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 :

Telephone :
Telefax :
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

: Skin corrosion/irritation, Category 3, H316
Serious eye damage/eye irritation, Category 2A, H319
Specific target organ toxicity - single exposure, Category 3,

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

SILVERSHINE 408 Aluminiumpaste

Version 3.0

Revision Date 10.03.2020

Print Date 06.08.2020

Respiratory system, Central nervous system, H335H336
Long-term (chronic) aquatic hazard, Category 2, H411

GHS-Labeling

Symbol(s)



Signal word

: Warning

Hazard statements

: H316: Causes mild skin irritation.
H319: Causes serious eye irritation.
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/ fume/ gas/ mist/ vapours/ spray.
P273 Avoid release to the environment.
P280 Wear eye protection/ face protection.
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.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P391 Collect spillage.

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

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

SILVERSHINE 408 Aluminiumpaste

Version 3.0

Revision Date 10.03.2020

Print Date 06.08.2020

SECTION 3: Composition/information on ingredients

Substance name : SILVERSHINE 408

Substance No. :


Hazardous components

Chemical name	CAS-No. EINECS-No.	Classification and labelling	Concentration[%]
Solvent naphtha (petroleum), light arom.	64742-95-6	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; Low boiling point ydrogen treated naphtha	64742-48-9	Flam. Liq.;4;H227 Asp. Tox.;1;H304	10 - 20
Poly(oxy-1,2-ethanediyl), alphaisotridecyl-omega-hydroxy-, phosphate	73038-25-2	;2;H315 ;1;H318 Aquatic Chronic;3;H412	1 - 2,5

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

Page 3 / 22	102000029233	A member of 
-------------	--------------	---

SILVERSHINE 408 Aluminiumpaste

Version 3.0

Revision Date 10.03.2020

Print Date 06.08.2020

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. If on skin, rinse well with water. If on clothes, remove clothes.
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.


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

Page 4 / 22	102000029233	A member of 
-------------	--------------	---

SILVERSHINE 408 Aluminiumpaste

Version 3.0

Revision Date 10.03.2020

Print Date 06.08.2020

Suitable extinguishing media : Dry sand, Special powder against metal fire

Unsuitable extinguishing media : Water, Foam, Carbon dioxide (CO₂), ABC powder

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.

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

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

SILVERSHINE 408 Aluminiumpaste

Version 3.0

Revision Date 10.03.2020

Print Date 06.08.2020

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).

Do not flush with water.
Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

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.

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 : Earthing of containers and apparatuses is essential. Take
measures to prevent the build up of electrostatic charge. Use
explosion-proof equipment.

Avoid dust formation. Keep away from open flames, hot
surfaces and sources of ignition.

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

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

SILVERSHINE 408 Aluminiumpaste

Version 3.0

Revision Date 10.03.2020

Print Date 06.08.2020

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.
- No smoking. Keep container tightly closed in a dry and well-ventilated place. 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.

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		2;(II)			

SILVERSHINE 408 Aluminiumpaste

Version 3.0

Revision Date 10.03.2020

Print Date 06.08.2020

factor (category)					
Further information		Commission for dangerous substancesSenate commission for the review of compounds at the work place dangerous for the health (MAK-commission).			
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)			
Further information		Commission for dangerous substancesSenate commission for the review of compounds at the work place dangerous for the health (MAK-commission).			
Solvent naphtha (petroleum), light arom.	64742-95-6	AGW	100 mg/m ³	2009-02-16	DE TRGS 900
Peak-limit: excursion factor (category)		2;(II)			
Further information		Group exposure limit for hydrocarbon solvent mixturesCommission for dangerous substancesSee also No. 2.9 of the TRGS 900			
Naphtha (petroleum), hydrotreated heavy; Low boiling point ydrogen 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 mixturesCommission for dangerous substancesSee also No. 2.9 of the TRGS 900			

United States of America (USA):

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

SILVERSHINE 408 Aluminiumpaste

Version 3.0

Revision Date 10.03.2020

Print Date 06.08.2020

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/m3	2013-10-08	
aluminium powder (stabilised)	7429-90-5	TWA (total dust)	15 mg/m3	2012-07-01	
aluminium powder (stabilised)	7429-90-5	TWA (total)	10 mg/m3	2013-10-08	
aluminium powder (stabilised)	7429-90-5	TWA (respirable fraction)	5 mg/m3	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/m3	2014-11-26	
aluminium powder (stabilised)	7429-90-5	PEL (respirable dust fraction)	5 mg/m3	2014-11-26	
aluminium powder (stabilised)	7429-90-5	TWA (Respirable fraction)	1 mg/m3	2008-01-01	
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	

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

SILVERSHINE 408 Aluminiumpaste

Version 3.0

Revision Date 10.03.2020

Print Date 06.08.2020

aluminium powder (stabilised)	7429-90-5	TWA (total dust)	15 mg/m ³	2011-07-01	
aluminium powder (stabilised)	7429-90-5	TWA (respirable fraction)	5 mg/m ³	2011-07-01	
aluminium powder (stabilised)	7429-90-5	TWA (Total dust)	15 mg/m ³	1989-01-19	
aluminium powder (stabilised)	7429-90-5	TWA (respirable dust fraction)	5 mg/m ³	1989-01-19	
aluminium powder (stabilised)	7429-90-5	TWA (welding fumes)	5 mg/m ³	2013-10-08	
aluminium powder (stabilised)	7429-90-5	TWA (pyro powders)	5 mg/m ³	2013-10-08	
aluminium powder (stabilised)	7429-90-5	TWA (Respirable fraction)	1 mg/m ³	2013-03-01	
aluminium powder (stabilised)	7429-90-5	TWA (Fumes)	5 mg/m ³	1989-01-19	
aluminium powder (stabilised)	7429-90-5	PEL (Welding fumes)	5 mg/m ³	2017-10-02	
aluminium powder (stabilised)	7429-90-5	PEL (Pyro powders)	5 mg/m ³	2017-10-02	
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	

SILVERSHINE 408 Aluminiumpaste

Version 3.0

Revision Date 10.03.2020

Print Date 06.08.2020

Solvent naphtha (petroleum), light arom.	64742-95-6	TWA	400 ppm 1 600 mg/m ³	1989-01-19	
Naphtha (petroleum), hydrotreated heavy; Low boiling point ydrogen treated naphtha	64742-48-9	TWA	500 ppm 2 000 mg/m ³	2007-01-01	
Naphtha (petroleum), hydrotreated heavy; Low boiling point ydrogen treated naphtha	64742-48-9	TWA	400 ppm 1 600 mg/m ³	1989-01-19	

8.2 Exposure controls
Personal protective equipment

Eye protection : Safety glasses

Hand protection

Material : Solvent-resistant gloves (butyl-rubber)

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

SILVERSHINE 408 Aluminiumpaste

Version 3.0

Revision Date 10.03.2020

Print Date 06.08.2020

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.

: 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.

: 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

General advice :

: 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

SILVERSHINE 408 Aluminiumpaste

Version 3.0

Revision Date 10.03.2020

Print Date 06.08.2020

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	: No data available
Freezing point	: No data available
Boiling point/boiling range	: No data available
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	: 1,1 - 1,5 g/cm ³
Water solubility	: No data available
Miscibility with water	: immiscible

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

SILVERSHINE 408 Aluminiumpaste

Version 3.0

Revision Date 10.03.2020

Print Date 06.08.2020

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 Vapours may form explosive mixture with air.

9.2 Other information

No data available

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.
Vapours may form explosive mixture with air.

Stable under recommended storage conditions.

10.4 Conditions to avoid

Conditions to avoid : Do not allow to dry.

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

SILVERSHINE 408 Aluminiumpaste

Version 3.0

Revision Date 10.03.2020

Print Date 06.08.2020

Heat, flames and sparks.

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

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; Low boiling point ydrogen treated naphtha :

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

SILVERSHINE 408 Aluminiumpaste

Version 3.0

Revision Date 10.03.2020

Print Date 06.08.2020

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

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

No data available

Carcinogenicity

No data available

Toxicity to reproduction/fertility

No data available

Reprod.Tox./Development/Teratogenicity

No data available

STOT - single exposure

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

SILVERSHINE 408 Aluminiumpaste

Version 3.0

Revision Date 10.03.2020

Print Date 06.08.2020

No data available

STOT - repeated exposure

No data available

Aspiration toxicity

No data available

Further information**Product**

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.

SECTION 12: Ecological information**12.1 Toxicity****Components:****Solvent naphtha (petroleum), light arom. (64742-95-6) :****Ecotoxicology Assessment**

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

Poly(oxy-1,2-ethanediyl), alphaisotridecyl-omega-hydroxy-, phosphate (73038-25-2) :**Ecotoxicology Assessment**

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

12.2 Persistence and degradability

No data available

SILVERSHINE 408 Aluminiumpaste

Version 3.0

Revision Date 10.03.2020

Print Date 06.08.2020

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.

SECTION 13: Disposal considerations**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.

SILVERSHINE 408 Aluminiumpaste

Version 3.0

Revision Date 10.03.2020

Print Date 06.08.2020

Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.
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.
(Solvent naphtha)**TDG**

Not dangerous goods

CFR

Not dangerous goods

IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,
N.O.S.
(,Solvent naphtha)**IATA** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,
N.O.S.
(Solvent naphtha)

SILVERSHINE 408 Aluminiumpaste

Version 3.0

Revision Date 10.03.2020

Print Date 06.08.2020

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

TDG

Not dangerous goods

CFR

Not dangerous goods

IMDG

Packaging group : III

Labels : 9

EmS Number : F-A, S-F

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

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

SILVERSHINE 408 Aluminiumpaste

Version 3.0

Revision Date 10.03.2020

Print Date 06.08.2020

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

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 (EC) No 850/2004 on persistent organic pollutants : Not applicable

15.2 Chemical safety assessment

SILVERSHINE 408 Aluminiumpaste

Version 3.0

Revision Date 10.03.2020

Print Date 06.08.2020

No data available

SECTION 16: Other information**Full text of H-Statements**

H226	: Flammable liquid and vapour.
H227	: Combustible liquid.
H303	: May be harmful if swallowed.
H304	: May be fatal if swallowed and enters airways.
H313	: May be harmful in contact with skin.
H315	: Causes skin irritation.
H316	: Causes mild skin irritation.
H318	: Causes serious eye damage.
H319	: Causes serious eye irritation.
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 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.