eConduct Aluminium 451500

Version 3.0 Revision Date 09.12.2019 Print Date 30.11.2024

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

1.1 Product identifier

Trade name : eConduct Aluminium 451500
Material number : 022222B20

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
Guentersthal 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

: Short-term (acute) aquatic hazard, Category 1, H400
Long-term (chronic) aquatic hazard, Category 1, H410

Information concerning particular hazards for human and environment: : Please refer to our website for further important safety instructions for handling aluminium powder:

http://www.eckart.net/fileadmin/eckart/Service/GDA_Alupulver_Safety_engl.pdf

GHS-Labelling

Symbol(s) :

Signal word : Warning

Hazard statements : H410: Very toxic to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**
P273 Avoid release to the environment.
Response:
P391 Collect spillage.
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 name : Versuch 83001295 VP70711/G

Substance No. :

Hazardous components

Chemical name	CAS-No. EINECS-No.	Classification and labelling	Concentration[%]
silver	7440-22-4 231-131-3	Aquatic Acute;1;H400 Aquatic Chronic;1;H410	10 - 20
silver	7440-22-4 231-131-3	Aquatic Acute;1;H400 Aquatic Chronic;1;H410	10 - 20
silicon dioxide	7631-86-9 231-545-4	Acute Tox.;5;H303	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.
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.

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

In case of eye contact : 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

Suitable extinguishing media	:	Dry sand, Special powder against metal fire
Unsuitable extinguishing media	:	ABC powder, Carbon dioxide (CO2), Water, Foam

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting	:	Contact with water liberates extremely flammable gas (hydrogen). Do not allow run-off from fire fighting to enter drains or water courses.

5.3 Advice for firefighters

Special protective equipment 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 : Use personal protective equipment.
Evacuate personnel to safe areas.
Avoid dust formation.

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 respective authorities.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Use mechanical handling equipment.
Do not use a vacuum cleaner.
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 : Avoid creating dust. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Keep away from heat and sources of ignition. Do not smoke.

For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion	:	During processing, dust may form explosive mixture in air. Take measures to prevent the build up of electrostatic charge. Earthing of containers and apparatuses is essential. Use explosion-proof equipment. When transferring from one container to another apply earthing measures and use conductive hose material. Normal measures for preventive fire protection.
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	:	Reaction with water liberates extremely flammable gas (hydrogen) 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. Electrical installations / working materials must comply with the technological safety standards.
Further information on storage conditions	:	Protect from humidity and water.
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	:	Keep in a dry place. 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/m3	2014-04-02	DE TRGS 900
Peak-limit: excursion factor (category)		2;(II)			
Further information		Commission for dangerous substances Senate 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/m3	2014-04-02	DE TRGS 900
Peak-limit: excursion factor (category)		2;(II)			
Further information		Commission for dangerous substances Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).			
silver	7440-22-4	TWA	0,1 mg/m3	2000-06-16	2000/39/EC
Further information		Indicative			
silver	7440-22-4	AGW (Inhalable fraction)	0,1 mg/m3	2006-01-01	DE TRGS 900
Peak-limit: excursion factor (category)		8;(II)			
Further information		Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).European Union (The EU has established a limit value: deviations in value and peak limit are possible)			
silver	7440-22-4	TWA	0,01 mg/m3	2006-02-09	2006/15/EC

Further information		Indicative			
silicon dioxide	7631-86-9	AGW (Inhalable fraction)	4 mg/m3	2013-09-19	DE TRGS 900
Further information		Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).Colloidal amorphous silica, including pyrogenic silica and in wet processes manufactured silica (precipitated silica, silicagel).When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			

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/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	
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 fraction)	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	

(stabilised)					
aluminium powder (stabilised)	7429-90-5	PEL (Pyro powders)	5 mg/m3	2017-10-02	
silver	7440-22-4	TWA	0,1 mg/m3	2008-01-01	
silver	7440-22-4	TWA (Dust)	0,01 mg/m3	2005-09-01	
silver	7440-22-4	TWA	0,01 mg/m3	1989-01-19	
silver	7440-22-4	TWA	0,01 mg/m3	1989-01-19	
silver	7440-22-4	TWA	0,01 mg/m3	2011-07-01	
silver	7440-22-4	TWA (Dust and fume)	0,1 mg/m3	2013-03-01	
silver	7440-22-4	TWA (Dust)	0,01 mg/m3	2013-10-08	
silver	7440-22-4	PEL	0,01 mg/m3	2014-11-26	
silicon dioxide	7631-86-9	TWA (Dust)	20 Million particles per cubic foot	2012-07-01	
silicon dioxide	7631-86-9	TWA (Dust)	80 mg/m3 / %SiO2	2012-07-01	
silicon dioxide	7631-86-9	TWA	6 mg/m3	2013-10-08	
silicon dioxide	7631-86-9	PEL	6 mg/m3	2014-11-26	

8.2 Exposure controls

Personal protective equipment

Eye protection : Face-shield

: Safety glasses

Hand protection

Material : Leather

Glove length : Long sleeve gloves

Remarks : Leather gloves

The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other.

	:	The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Skin and body protection	:	Anti-static and fire resistant protective clothing. DIN EN 11612; EN 533; EN 1149-1. Anti-static safety shoes.
	:	Dust impervious protective suit 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. Breathing apparatus with filter. P1 filter

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 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	:	powder
Colour	:	silver
Odour	:	odourless
pH	:	No data available
Melting point/range	:	660 °C
Boiling point/boiling range	:	No data available

Flash point	:	No data available
Bulk density	:	No data available
Flammability (solid, gas)	:	Combustible Solids
Auto-flammability	:	No data available
Upper explosion limit	:	No data available
Lower explosion limit	:	30 g/m3
Vapour pressure	:	No data available
Density	:	No data available
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

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.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : Contact with acids and alkalis may release hydrogen.

Stable under recommended storage conditions.

Dust may form explosive mixture in air.

10.4 Conditions to avoid

Conditions to avoid : No data available

10.5 Incompatible materials

Materials to avoid : Acids
Bases
Oxidizing agents
Water

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:

silicon dioxide :

Acute oral toxicity	:	LD50 Rat: 5 000 mg/kg
		Mouse: 15 000 mg/kg
Acute inhalation toxicity	:	Rat: 0,139 mg/l
		Exposure time: 4 h
Acute dermal toxicity	:	LD50 Rabbit: > 5 000 mg/kg

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

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

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:

silver (7440-22-4) :

M-Factor	:	10

Ecotoxicology Assessment

Short-term (acute) aquatic hazard	:	Very toxic to aquatic life.
Long-term (chronic) aquatic hazard	:	Very toxic to aquatic life with long lasting effects.

silver (7440-22-4) :

M-Factor	:	10

Ecotoxicology Assessment

Short-term (acute) aquatic hazard	:	Very toxic to aquatic life.
Long-term (chronic) aquatic hazard	:	Very toxic to aquatic life with long lasting effects.

silicon dioxide (7631-86-9) :

Toxicity to daphnia and other aquatic invertebrates	:	(Daphnia (water flea)): 7 600 mg/l
Toxicity to algae	:	(Chlorella pyrenoidosa (aglae)): 440 mg/l Exposure time: 72 h

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., Very 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. 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.
(Silver)

TDG

Not dangerous goods

CFR

Not dangerous goods

IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(,Silver)

IATA : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(Silver)

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

IATA

Packing instruction (cargo aircraft)	:	956
Packing instruction (passenger aircraft)	:	956
Packing instruction (LQ)	:	Y956
Packaging group	:	III
Labels	:	9

14.5 Environmental hazards

ADR	:	Environmentally hazardous
IMDG	:	Marine pollutant

14.6 Special precautions for user

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.

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

Prohibition/Restriction
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : Not applicable

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

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

15.2 Chemical safety assessment

No data available

SECTION 16: Other information

Full text of H-Statements

H303	:	May be harmful if swallowed.
H400	:	Very toxic to aquatic life.
H410	:	Very 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.