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

eConduct Aluminium 451500

Version 3.0

Revision Date 09.12.2019

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

1.1 Product identifier

Trade name	:	eCo
Material number	:	022

- eConduct Aluminium 451500
- : 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

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ersion 3.0	Revisi	on Date 09.12.2019	Print Date 30.11.2024
Information concerning pa hazards for human and en		: Please refer to our webs safety instructions for ha	ite for further important ndling aluminium powder:
		http://www.eckart.net/file _Alupulver_Safety_engl.	eadmin/eckart/Service/GDA pdf
GHS-Labelling			
Symbol(s)	:		
Signal word	: Warning		
Hazard statements	: H410: V	ery toxic to aquatic life with I	ong lasting effects.
Precautionary statements	Respon P391 Disposa	Avoid release to the environ se: Collect spillage. II: Dispose of contents/ contair	

Other hazards which do not result in classification

Combustible Solids

SECTION 3: Composition/information on ingredients

:

Substance name

: Versuch 83001295 VP70711/G

Substance No.

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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 spec	
If inhaled	 If unconscious, place in recover advice. If symptoms persist, call a physical symptoms persist. 	
In case of skin contact	: Wash off immediately with soa	
In case of eye contact	: Flush eyes with water as a pred Remove contact lenses. Keep eye wide open while rinsi If eye irritation persists, consult	ng.
If swallowed	 Keep respiratory tract clear. Do not give milk or alcoholic be Never give anything by mouth t If symptoms persist, call a physical 	everages. o an unconscious person.
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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.

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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 le	eakage or spillage if safe to do so.
	If the product co	ntaminates rivers and lakes or drains inform
	respective autho	orities.

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.

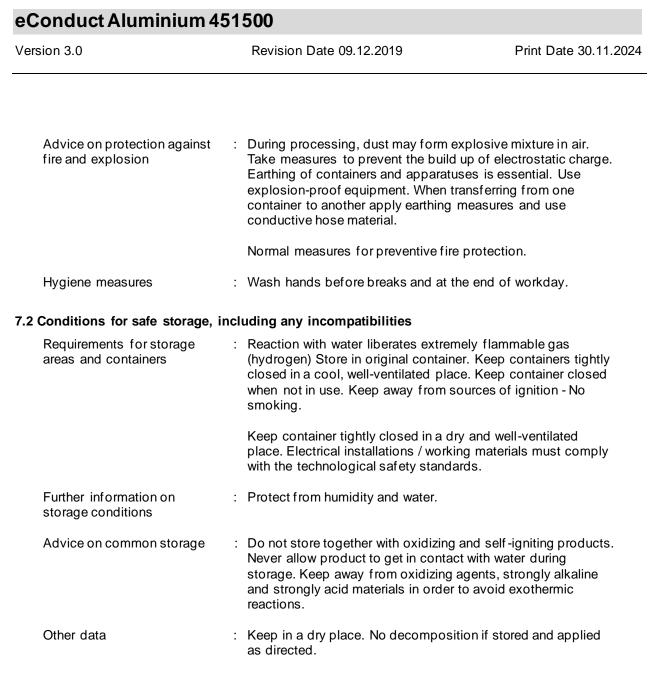
SECTION 7: Handling and storage

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.	

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7.3 Specific end use(s)

This information is not available.

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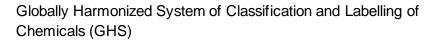
SECTION 8: Exposure controls/personal protection

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 informa	ation		dangerous substa ounds at the work p on).		
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 informa	ation		dangerous substa ounds at the work p on).		
	ation 7440-22-4	review of compo	ounds at the work p		
	7440-22-4	review of compo (MAK-commissi	ounds at the work p on).	blace dangerous	for the health
silver Further informa	7440-22-4	review of compo (MAK-commissi TWA	ounds at the work p on).	blace dangerous	for the health
silver Further informa	7440-22-4 ation 7440-22-4 ursion	review of compo (MAK-commissi TWA Indicative AGW (Inhalable	ounds at the work p on). 0,1 mg/m3	blace dangerous	for the health 2000/39/EC
silver Further informa silver Peak-limit: excu	7440-22-4 ation 7440-22-4 ursion y)	review of compo (MAK-commissi TWA Indicative AGW (Inhalable fraction) 8;(II) Senate commissi place dangerous	ound's at the work p on). 0,1 mg/m3 0,1 mg/m3 sion for the review s for the health (M/ has established a l	olace dangerous 2000-06-16 2006-01-01 of compounds a AK-commission)	for the health 2000/39/EC DE TRGS 900 at the work European
silver Further informa silver Peak-limit: excu factor (category Further informa	7440-22-4 ation 7440-22-4 ursion y)	review of compo (MAK-commissi TWA Indicative AGW (Inhalable fraction) 8;(II) Senate commissi place dangerous Union (The EU I	ound's at the work p on). 0,1 mg/m3 0,1 mg/m3 sion for the review s for the health (M/ has established a l	olace dangerous 2000-06-16 2006-01-01 of compounds a AK-commission)	for the health 2000/39/EC DE TRGS 900 at the work European





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Further inform	ation	Indicative			
silicon dioxide	7631-86-9	AGW (Inhalable 4 mg/m3 2013-09-19 DE TRGS 9 fraction)			
Further inform	ation	place dangerous amorphous silica manufactured si compliance with	sion for the review of s for the health (MA a, including pyroger lica (precipitated sil the OEL and biologing the unborn child	K-commission). hic silica and in v ica, silicagel).W	Colloidal vet processes hen there is

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	
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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	
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(stabilised)		l		
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 equipm	ent	
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.

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Skin and body protection Respiratory protection	 The suitability for a specific workplace should be discussed with the producers of the protective gloves. 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. Use suitable breathing protection if workplace concentration requires. Breathing apparatus with filter. P1 filter
Environmental exposure of General advice	controls
	 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.

courses or the soil.

The product should not be allowed to enter drains, water

SECTION 9: Physical and chemical properties

Water

9.1 Information on basic physical and chemical properties

:

:

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

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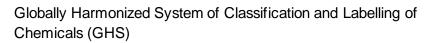
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Flash point	:	No data available
Bulk density	:	No data available
Flammability (solid, gas)	:	Combustible Solids
Auto-flammability	:	No data available
Upper explosion limit	:	No data available
Lower explosion limit	:	30 g/m3
Vapour pressure	:	No data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

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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 10.5 Incompatible materials	: No data available
Materials to avoid	: Acids Bases Oxidizing agents Water

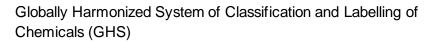
10.6 Hazardous decomposition products

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Hazardous decomposition products	: No data available		
Other information	: No data available		
SECTION 11: Toxicological in			
11.1 Information on toxicologica	al 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 irritati	on		
No data available			
Respiratory or skin sensitisation	n		
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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

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Components: silver (7440-22-4) : M-Factor : 10 **Ecotoxicology Assessment** Short-term (acute) aquatic : Very toxic to aquatic life. hazard Long-term (chronic) aquatic : Very toxic to aquatic life with long lasting effects. hazard silver (7440-22-4) : M-Factor : 10 **Ecotoxicology Assessment** Short-term (acute) aquatic : Very toxic to aquatic life. hazard Long-term (chronic) aquatic : Very toxic to aquatic life with long lasting effects. hazard silicon dioxide (7631-86-9) : Toxicity to daphnia and other : (Daphnia (water flea)): 7 600 mg/l aquatic invertebrates 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

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No data available

12.6 Other adverse effects

Product:

Additional ecological	:	An environmental hazard cannot be excluded in the event of
information		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.
Contaminated packaging	 In accordance with local and national regulations. 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

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CFR		
Not dangerous goods		
TDG		
ADR	: 3077	
14.1 UN number		



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Not dangerous goods			
IMDG	: 3077		
ΙΑΤΑ	: 3077		
14.2 Proper shipping name			
ADR	: ENVIRONMENTALLY HAZARDOUS S N.O.S. (Silver)	SUBSTANCE, SOLID,	
TDG			
Not dangerous goods CFR			
Not dangerous goods			
IMDG	: ENVIRONMENTALLY HAZARDOUS S N.O.S.	SUBSTANCE, SOLID,	
	(,Silver)		
ΙΑΤΑ	: ENVIRONMENTALLY HAZARDOUS S N.O.S. (Silver)	SUBSTANCE, SOLID,	
14.3 Transport hazard class			
ADR	: 9		
TDG			
Not dangerous goods			
CFR			
Not dangerous goods			
IMDG	: 9		
ΙΑΤΑ	: 9		
14.4 Packing group			
ADR			

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	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
	ΙΑΤΑ		
	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

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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

15.2 Chemical safety assessment

No data available

SECTION 16: Other information

Full text of H-Statements

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H410	: Very toxic to aquatic life with long lasting effects.		
H400	: Very toxic to aquatic life.		
H303	: May be harmful if swallowed.		

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