

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

STANDART PCU 2000 Aluminium Powder

Version 2.1

Revision Date 25.05.2022

Print Date 26.05.2022

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

1.1 Product identifier

Trade name : STANDART PCU 2000 Aluminium Powder
Material number : 041242D60

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

: Flammable solids, Category 1, H228
Skin corrosion/irritation, Category 3, H316

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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-Labeling

Symbol(s) : 


Signal word : Danger

Hazard statements : H228: Flammable solid.
H316: Causes mild skin irritation.

Precautionary statements : **Prevention:**
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P240 Ground and bond container and receiving equipment.
 P241 Use explosion-proof electrical/ ventilating/ lighting equipment.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.
Response:
 P332 + P317 If skin irritation occurs: Get medical help.
 P370 + P378 In case of fire: Use for extinction: Special powder for metal fires.
 P370 + P378 In case of fire: Use for extinction: Dry sand.

Hazardous components which must be listed on the label

SECTION 3: Composition/information on ingredients

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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
monoalkyl or monoaryl or monoalkyaryl esters of methacrylic acid	2530-85-0 219-785-8	Acute Tox.;5;H303 ;2;H315 ;2A;H319 STOT SE;3;H335	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.
- Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- If inhaled : Remove to fresh air.
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.
- If skin irritation persists, call a physician.
If on clothes, remove clothes.

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- 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
- High volume water jet

5.2 Special hazards arising from the substance or mixture

- Specific hazards during firefighting : Contact with water liberates extremely flammable gas (hydrogen).

5.3 Advice for firefighters

- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

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Further information : For safety reasons in case of fire, cans should be stored separately in closed containments. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use a water spray to cool fully closed containers.

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.
Use personal protective equipment.
Avoid dust formation.
Avoid breathing dust.
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 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.

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).
Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For personal protection see section 8.

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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. Store away from heat.

Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Use explosion-proof equipment. During processing, dust may form explosive mixture in air. Take measures to prevent the build up of electrostatic charge. When transferring from one container to another apply earthing measures and use conductive hose material.

Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from open flames, hot surfaces and sources of ignition.

Hygiene measures : When using do not eat or drink. When using do not smoke. 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 : Earthing of containers and apparatuses is essential. Reaction with water liberates extremely flammable gas (hydrogen) Use explosion-proof equipment. Store in original container. Keep containers tightly closed in a cool, well-ventilated place. Keep away from sources of ignition - No smoking. Keep container closed when not in use.

No smoking. Keep container tightly closed in a dry and well-ventilated place. Electrical installations / working materials

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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/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)			
silicon	7631-86-9	AGW (Inhalable)	4 mg/m ³	2013-09-19	DE TRGS 900

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dioxide		fraction)			
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/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 powder	7429-90-5	TWA (Respirable)	1 mg/m ³	2008-01-01	

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(stabilised)		particulate matter)			
aluminium powder (stabilised)	7429-90-5	TWA	5 mg/m ³	2005-09-01	
aluminium powder (stabilised)	7429-90-5	TWA (Total)	15 mg/m ³	1989-01-19	
aluminium powder (stabilised)	7429-90-5	TWA (Respirable fraction)	5 mg/m ³	1989-01-19	
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 particulate matter)	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	

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aluminium powder (stabilised)	7429-90-5	PEL (Pyro powders)	5 mg/m ³	2017-10-02	
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/m ³ / %SiO ₂	2012-07-01	
silicon dioxide	7631-86-9	TWA	6 mg/m ³	2013-10-08	
silicon dioxide	7631-86-9	PEL	6 mg/m ³	2014-11-26	

8.2 Exposure controls

Personal protective equipment

Eye protection : Face-shield
 : Tightly fitting safety goggles

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

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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.

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SECTION 9: Physical and chemical properties
9.1 Information on basic physical and chemical properties

Appearance : powder
 Colour : silver
 Odour : characteristic

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pH	: substance/mixture is non-soluble (in water)
Melting point/freezing point	: 660 °C
Boiling point/boiling range	: 2 467 °C
Flash point	: No data available
Bulk density	: No data available
Flammability (solid, gas)	: The substance or mixture is a flammable solid with the category 1.
Smoldering temperature	: > 230 °C
Auto-flammability	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: 30 g/m ³
Vapour pressure	: No data available
Density	: 2,2 g/cm ³ (ca.)
Water solubility	: No data available
Miscibility with water	: immiscible
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Ignition temperature	: 340 °C
Thermal decomposition	: No data available
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Flow time	: No data available

9.2 Other information

No data available

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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.

No decomposition if stored and applied as directed.

Dust may form explosive mixture in air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materialsMaterials to avoid : Acids
Bases
Oxidizing agents
Water**10.6 Hazardous decomposition products**

Other information : No data available

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

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Components:**monoalkyl or monoaryl or monoalkyaryl esters of methacrylic acid :**

Acute oral toxicity : LD50 Rat: > 2 000 mg/kg

Acute dermal toxicity : Rat: > 2 000 mg/kg

Skin corrosion/irritation**Product**

May cause skin irritation and/or dermatitis.

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

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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

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

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No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

Product:

Additional ecological information : No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with
chemical or used container.
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14: Transport information

14.1 UN number

ADR : 1309

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TDG : 1309
CFR : 1309
IMDG : 1309
IATA : 1309

14.2 Proper shipping name

ADR : ALUMINIUM POWDER, COATED
TDG : ALUMINIUM POWDER, COATED
CFR : ALUMINIUM POWDER, COATED
IMDG : ALUMINIUM POWDER, COATED
IATA : ALUMINIUM POWDER, COATED

14.3 Transport hazard class

ADR : 4.1
TDG : 4.1
CFR : 4.1
IMDG : 4.1
IATA : 4.1

14.4 Packing group

ADR
Packaging group : II
Classification Code : F3
Hazard Identification Number : 40
Labels : 4.1
Tunnel restriction code : (E)

TDG
Packaging group : II
Labels : 4.1

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CFR

Packaging group : II
Labels : 4.1

IMDG

Packaging group : II
Labels : 4.1
EmS Number : F-G, S-G

IATA

Packing instruction (cargo aircraft) : 448
Packing instruction (passenger aircraft) : 445
Packing instruction (LQ) : Y441
Packaging group : II
Labels : 4.1

14.5 Environmental hazards**14.6 Special precautions for user****IMDG Code- segregation group:**

: IMDG Code segregation group 15 - Powdered metals

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

No data available

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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)) (monoalkyl or monoaryl or monoalkyaryl esters of methacrylic acid)

15.2 Chemical safety assessment

No data available

SECTION 16: Other information
Full text of H-Statements

H228	: Flammable solid.
H303	: May be harmful if swallowed.
H315	: Causes skin irritation.
H316	: Causes mild skin irritation.
H319	: Causes serious eye irritation.

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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.