

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

## STANDART PCR 214 Aluminium Powder

Version 2.2

Revision Date 29.06.2021

Print Date 15.04.2024

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

#### 1.1 Product identifier

Trade name : STANDART PCR 214 Aluminium Powder  
Material number : 000240D70

#### 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 Suisse SA  
Route de la Brasserie 2  
1963 Vétroz  
Telephone : +410273454800  
Telefax : +410273454859  
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

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

## STANDART PCR 214 Aluminium Powder


Version 2.2

Revision Date 29.06.2021

Print Date 15.04.2024

**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](http://www.eckart.net/fileadmin/eckart/Service/GDA_Alupulver_Safety_engl.pdf)

### GHS-Labeling

Symbol(s) : 

Signal word : Danger

Hazard statements : H228: Flammable solid.

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:**  
 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

Substance No. :

**STANDART PCR 214 Aluminium Powder**

Version 2.2

Revision Date 29.06.2021

Print Date 15.04.2024

**Hazardous components**


| Chemical name                 | CAS-No.<br>EINECS-No.  | Classification and<br>labelling | Concentration[%] |
|-------------------------------|------------------------|---------------------------------|------------------|
| aluminium powder (stabilised) | 7429-90-5<br>231-072-3 | Flam. Sol.;1;H228               | 50 - 100         |
| silicon dioxide               | 7631-86-9<br>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.<br>Move out of dangerous area.<br>Show this safety data sheet to the doctor in attendance.<br>Do not leave the victim unattended.               |
| If inhaled              | : Remove to fresh air.<br>If unconscious, place in recovery position and seek medical advice.<br>If symptoms persist, call a physician.   |
| In case of skin contact | : Wash off immediately with soap and plenty of water.<br>If on clothes, remove clothes.   |
| In case of eye contact  | : Flush eyes with water as a precaution.<br>Remove contact lenses.<br>Keep eye wide open while rinsing.<br>If eye irritation persists, consult a specialist.                    |
| If swallowed            | : Keep respiratory tract clear.<br>Do not give milk or alcoholic beverages.<br>Never give anything by mouth to an unconscious person.<br>If symptoms persist, call a physician. |

**4.2 Most important symptoms and effects, both acute and delayed**

|             |             |   |
|-------------|-------------|---|
| Page 3 / 19 | 10200000283 | A member of  |
|-------------|-------------|---|

**STANDART PCR 214 Aluminium Powder**

Version 2.2

Revision Date 29.06.2021

Print Date 15.04.2024

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 (CO<sub>2</sub>), 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.

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.

**STANDART PCR 214 Aluminium Powder**

Version 2.2

Revision Date 29.06.2021

Print Date 15.04.2024

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  
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.

---

**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.

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

**STANDART PCR 214 Aluminium Powder**

Version 2.2

Revision Date 29.06.2021

Print Date 15.04.2024

conductive hose material.

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

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 : 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 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.

**STANDART PCR 214 Aluminium Powder**

Version 2.2

Revision Date 29.06.2021

Print Date 15.04.2024

**SECTION 8: Exposure controls/personal protection**
**8.1 Control parameters**
**Germany:**

| Components                              | CAS-No.  | Value type<br>(Form of exposure) | Control parameters     | Update     | Basis       |
|---|--|----------------------------------|------------------------|------------|-------------|
| aluminium powder (stabilised)           | 7429-90-5  | AGW (Inhalable fraction)         | 10 mg/m <sup>3</sup>   | 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/m <sup>3</sup> | 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).   |                                  |                        |            |             |
| silicon dioxide                         | 7631-86-9  | AGW (Inhalable fraction)         | 4 mg/m <sup>3</sup>    | 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 | Control | Update | Basis |
|------------|---------|------------|---------|--------|-------|
|------------|---------|------------|---------|--------|-------|

**STANDART PCR 214 Aluminium Powder**

Version 2.2

Revision Date 29.06.2021

Print Date 15.04.2024

|                               |           | (Form of exposure)                  | parameters                          |            |  |
|-------------------------------|-----------|-------------------------------------|-------------------------------------|------------|--|
| 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 <sup>3</sup>                 | 2013-10-08 |  |
| aluminium powder (stabilised) | 7429-90-5 | TWA (total dust)                    | 15 mg/m <sup>3</sup>                | 2012-07-01 |  |
| aluminium powder (stabilised) | 7429-90-5 | TWA (total)                         | 10 mg/m <sup>3</sup>                | 2013-10-08 |  |
| aluminium powder (stabilised) | 7429-90-5 | TWA (respirable fraction)           | 5 mg/m <sup>3</sup>                 | 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 <sup>3</sup>                | 2014-11-26 |  |
| aluminium powder (stabilised) | 7429-90-5 | PEL (respirable dust fraction)      | 5 mg/m <sup>3</sup>                 | 2014-11-26 |  |
| aluminium powder (stabilised) | 7429-90-5 | TWA (Respirable particulate matter) | 1 mg/m <sup>3</sup>                 | 2008-01-01 |  |
| aluminium powder (stabilised) | 7429-90-5 | TWA                                 | 5 mg/m <sup>3</sup>                 | 2005-09-01 |  |
| aluminium powder (stabilised) | 7429-90-5 | TWA (Total)                         | 15 mg/m <sup>3</sup>                | 1989-01-19 |  |
| aluminium powder (stabilised) | 7429-90-5 | TWA (Respirable fraction)           | 5 mg/m <sup>3</sup>                 | 1989-01-19 |  |



**STANDART PCR 214 Aluminium Powder**

Version 2.2

Revision Date 29.06.2021

Print Date 15.04.2024

|                               |           |                                     |  |            |  |
|-------------------------------|-----------|-------------------------------------|--|------------|--|
| aluminium powder (stabilised) | 7429-90-5 | TWA (total dust)                    | 15 mg/m <sup>3</sup>                     | 2011-07-01 |  |
| aluminium powder (stabilised) | 7429-90-5 | TWA (respirable fraction)           | 5 mg/m <sup>3</sup>                      | 2011-07-01 |  |
| aluminium powder (stabilised) | 7429-90-5 | TWA (Total dust)                    | 15 mg/m <sup>3</sup>                     | 1989-01-19 |  |
| aluminium powder (stabilised) | 7429-90-5 | TWA (respirable dust fraction)      | 5 mg/m <sup>3</sup>                      | 1989-01-19 |  |
| aluminium powder (stabilised) | 7429-90-5 | TWA (welding fumes)                 | 5 mg/m <sup>3</sup>                      | 2013-10-08 |  |
| aluminium powder (stabilised) | 7429-90-5 | TWA (pyro powders)                  | 5 mg/m <sup>3</sup>                      | 2013-10-08 |  |
| aluminium powder (stabilised) | 7429-90-5 | TWA (Respirable particulate matter) | 1 mg/m <sup>3</sup>                      | 2013-03-01 |  |
| aluminium powder (stabilised) | 7429-90-5 | TWA (Fumes)                         | 5 mg/m <sup>3</sup>                      | 1989-01-19 |  |
| aluminium powder (stabilised) | 7429-90-5 | PEL (Welding fumes)                 | 5 mg/m <sup>3</sup>                      | 2017-10-02 |  |
| aluminium powder (stabilised) | 7429-90-5 | PEL (Pyro powders)                  | 5 mg/m <sup>3</sup>                      | 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 <sup>3</sup> / %SiO <sub>2</sub> | 2012-07-01 |  |
| silicon dioxide               | 7631-86-9 | TWA                                 | 6 mg/m <sup>3</sup>                      | 2013-10-08 |  |
| silicon dioxide               | 7631-86-9 | PEL                                 | 6 mg/m <sup>3</sup>                      | 2014-11-26 |  |

**STANDART PCR 214 Aluminium Powder**

Version 2.2

Revision Date 29.06.2021

Print Date 15.04.2024

**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 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

**STANDART PCR 214 Aluminium Powder**

Version 2.2

Revision Date 29.06.2021

Print Date 15.04.2024

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                                     | : 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)              | : No data available                           |
| Smoldering temperature                 | : > 230 °C                                    |
| Auto-flammability                      | : No data available                           |
| Upper explosion limit                  | : No data available                           |
| Lower explosion limit                  | : 30 g/m <sup>3</sup>                         |
| Vapour pressure                        | : No data available                           |
| Density                                | : 2,5 g/cm <sup>3</sup> (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                           |

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

## STANDART PCR 214 Aluminium Powder

Version 2.2

Revision Date 29.06.2021

Print Date 15.04.2024

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

---

## 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 materials

Materials to avoid : Acids  
Bases  
Oxidizing agents  
Water

**STANDART PCR 214 Aluminium Powder**

Version 2.2

Revision Date 29.06.2021

Print Date 15.04.2024

**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: &gt; 5 000 mg/kg

**Skin corrosion/irritation**

No data available

**Serious eye damage/eye irritation**

No data available

## STANDART PCR 214 Aluminium Powder

Version 2.2

Revision Date 29.06.2021

Print Date 15.04.2024

---

### 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

**STANDART PCR 214 Aluminium Powder**

Version 2.2

Revision Date 29.06.2021

Print Date 15.04.2024

**SECTION 12: Ecological information****12.1 Toxicity****Components:****silicon dioxide (7631-86-9) :**Toxicity to daphnia and other : (Daphnia (water flea)): 7 600 mg/l  
aquatic invertebratesToxicity 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 : No data available  
information

**STANDART PCR 214 Aluminium Powder**

Version 2.2

Revision Date 29.06.2021

Print Date 15.04.2024

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

|                        |  |
|------------------------|--|
| Product                | : Do not dispose of waste into sewer.<br>Do not contaminate ponds, waterways or ditches with chemical or used container.<br>Send to a licensed waste management company. |
| Contaminated packaging | : Empty remaining contents.<br>Dispose of as unused product.<br>Do not re-use empty containers.<br>Do not burn, or use a cutting torch on, the empty drum.               |

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

|      |        |
|------|--------|
| ADR  | : 1309 |
| TDG  | : 1309 |
| CFR  | : 1309 |
| IMDG | : 1309 |
| IATA | : 1309 |

**14.2 Proper shipping name**

|      |                            |
|------|----------------------------|
| ADR  | : ALUMINIUM POWDER, COATED |
| TDG  | : ALUMINUM POWDER, COATED  |
| CFR  | : ALUMINUM POWDER, COATED  |
| IMDG | : ALUMINIUM POWDER, COATED |
| IATA | : ALUMINIUM POWDER, COATED |

**14.3 Transport hazard class**

|     |       |
|-----|-------|
| ADR | : 4.1 |
|-----|-------|



**STANDART PCR 214 Aluminium Powder**

Version 2.2

Revision Date 29.06.2021

Print Date 15.04.2024

**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

**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

**STANDART PCR 214 Aluminium Powder**

Version 2.2

Revision Date 29.06.2021

Print Date 15.04.2024

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

---

**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**

No data available

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

## STANDART PCR 214 Aluminium Powder

Version 2.2

Revision Date 29.06.2021

Print Date 15.04.2024

---

### SECTION 16: Other information

#### Full text of H-Statements

H228 : Flammable solid.  
H303 : May be harmful if swallowed.

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.