

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 12.04.2011

Revision: 12.04.2011

**1 Identification of the substance/mixture and of the company/undertaking**

- **Product identifier**
- **Trade name:** STANDART Aluminium powder (all types)  
STANDART Aluminium powder VP ... (all types)
- **MSDS number:** ALPUI
- **CAS Number:**  
7429-90-5
- **EINECS Number:**  
231-072-3
- **Index number:**  
013-002-00-1
- **Registration number** 01-2119529243-45
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation**  
Construction chemicals  
Pigment  
Printing inks  
Paint
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
ECKART GmbH  
Güntersthal 4  
D-91235 Hartenstein
- **Further information obtainable from:**  
O-SE-RA  
Tel. +49 (0)9152 - 77 4492  
Angelika.HartlGunselmann@altana.com
- **Emergency telephone number:**  
GBK Gefahrgut Büro GmbH, Ingelheim, Germany:  
From Outside US: (001) 352-323-3500  
(First call in English / Response in your language is possible)  
Toll free (US&Canada): 1-800-5355053

**2 Hazards identification**

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Sol. 1 H228 Flammable solid.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



F+; Highly flammable

R11: Highly flammable.

- **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/downloads/documents/Safety\\_Instructions\\_GDA.pdf](http://www.eckart.net/fileadmin/ECKART/downloads/documents/Safety_Instructions_GDA.pdf)

- **Classification system:**  
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

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**Trade name: STANDART Aluminium powder (all types)**  
**STANDART Aluminium powder VP ... (all types)**

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- **Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

Note T Regulation (EC) No 1272/2008: This substance may be marketed in a form which does not have the physical hazards as indicated by the classification in the entry in Part 3. If the results of the relevant method or methods in accordance with Part 2 of Annex I of this Regulation show that the specific form of substance marketed does not exhibit this physical property or these physical hazards, the substance shall be classified in accordance with the result or results of this test or these tests. Relevant information, including reference to the relevant test method(s) shall be included in the safety data sheet.

The substance is classified and labelled according to the CLP regulation.

- **Hazard pictograms**



GHS02

- **Signal word Danger**

- **Hazard statements**

H228 Flammable solid.

- **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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.

- **Other hazards** Risk of dust explosion.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Substances**

- **CAS No. Description**

7429-90-5 aluminium powder (stabilized)

- **Identification number(s)**

- **EINECS Number:** 231-072-3

- **Index number:** 013-002-00-1

### 4 First aid measures

- **Description of first aid measures**

- **General information:**

Take affected persons out into the fresh air.

Take affected persons out of danger area and lay down.

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.

- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

- **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- **After swallowing:** If symptoms persist consult doctor.

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## 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
*Special powder for metal fires. Do not use water.*  
*Use fire extinguishing methods suitable to surrounding conditions.*  
*Dry sand*
- **For safety reasons unsuitable extinguishing agents:**  
*Water*  
*Carbon dioxide*  
*ABC powder*  
*Foam*
- **Special hazards arising from the substance or mixture**  
*Contact with water liberates extremely flammable gas (hydrogen).*
- **Protective equipment:** *No special measures required.*

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
*Wear protective equipment. Keep unprotected persons away.*  
*Avoid formation of dust.*  
*Keep away from ignition sources.*
- **Environmental precautions:** *Do not allow product to reach sewage system or any water course.*
- **Methods and material for containment and cleaning up:**  
*Do not flush with water or aqueous cleansing agents*  
*Pick up mechanically.*  
*Do not use a vacuum cleaner.*
- **Reference to other sections**  
*See Section 7 for information on safe handling.*  
*See Section 8 for information on personal protection equipment.*

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
*Prevent formation of dust.*  
*Keep away from heat and direct sunlight.*  
*Handle with care. Avoid jolting, friction and impact.*  
*Any unavoidable deposit of dust must be regularly removed.*
- **Information about fire - and explosion protection:**  
*Use intrinsically safe equipment/ non-sparking tools*  
*Protect against electrostatic charges.*  
*Earthing of containers and apparatuses is essential.*  
*Dust can combine with air to form an explosive mixture.*  
*Reaction with water liberates extremely flammable gas (hydrogen)*  
*Keep ignition sources away - Do not smoke.*
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
*Store in cool, dry place in tightly closed receptacles.*  
*Store only in the original receptacle.*  
*Use only receptacles specifically permitted for this substance/product.*
- **Information about storage in one common storage facility:**  
*Store away from flammable substances.*  
*Do not store together with oxidizing and acidic materials.*

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**Trade name: STANDART Aluminium powder (all types)**  
**STANDART Aluminium powder VP ... (all types)**

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- Do not store together with alkalis (caustic solutions).
- **Further information about storage conditions:**  
 Protect from humidity and water.  
 Keep container tightly sealed.  
 Caution when reopening receptacles with broken seal.
- **Storage class: 4.1B (TRGS 510)**

## 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

- **Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

**7429-90-5 aluminium powder (stabilized)**

WEL ()	Long-term value: 10* 4** mg/m <sup>3</sup> *inhalable dust **respirable dust
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- **DNELs**

**7429-90-5 aluminium powder (stabilized)**

Inhalative	DNEL	3 A mg/m <sup>3</sup> (-) (aluminium metal powder/dust 8 hour TWA.)
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- **Additional information:** The lists valid during the making were used as basis.

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

- Wash hands before breaks and at the end of work.
- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing
- Do not eat, drink, smoke or sniff while working.

- **Respiratory protection:**

- Use suitable breathing protection if workplace concentration requires.
- Filter P1

- **Protection of hands:**

- Leather gloves
- Long cuffed gloves

- **Eye protection:** Face protection

- **Body protection:**

- Anti-static and fire resistant protective clothing. EN 531; EN 533; EN 1149-1
- Anti-static safety shoes.

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

<b>Form:</b>	Powder
<b>Colour:</b>	Silver-coloured
<b>Odour:</b>	Odourless

- **Change in condition**

<b>Melting point/Melting range:</b>	660°C
<b>Boiling point/Boiling range:</b>	2467°C

- **Flash point:**

Not applicable.

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**Trade name: STANDART Aluminium powder (all types)**  
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· <b>Flammability (solid, gaseous):</b>	<i>Flammable.</i> <i>Contact with water liberates extremely flammable gases.</i>
· <b>Ignition temperature:</b>	> 400°C
· <b>Minimum ignition temperature test - dust layer</b>	> 230°C
· <b>Self-igniting:</b>	<i>Product is not selfigniting.</i>
· <b>Danger of explosion:</b>	<i>The product is not hazardous in regard of explosions, however, may form explosive dust/air mixtures.</i>
· <b>Explosion limits:</b>	
<b>Lower:</b>	30 g/m <sup>3</sup>
· <b>Density:</b>	2.7 g/cm <sup>3</sup>
· <b>Solubility in / Miscibility with water:</b>	<i>Insoluble.</i>

## 10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
*No decomposition if used according to specifications.*  
*No decomposition if used and stored according to specifications.*
- **Possibility of hazardous reactions**  
*Avoid dust clouds, they may form explosible dust-air-mixture.*  
*Reacts with halogenated compounds.*  
*Reacts with alkalis, acids, halogenes and oxidizing agents.*  
*Contact with acids and alkalis may release hydrogen.*  
*Contact with water may release flammable gases.*  
*Risk of dust explosion.*
- **Hazardous decomposition products:** *No dangerous decomposition products known.*

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· <b>LD/LC50 values relevant for classification:</b>		
<b>7429-90-5 aluminium powder (stabilized)</b>		
Oral	LD50	> 2000 mg/kg (rat)
Inhalative	LC50	888 mg/m <sup>3</sup> (rat)

- **Primary irritant effect:**
- **on the skin:** *No irritant effect.*
- **on the eye:** *No irritating effect.*
- **Sensitization:** *No sensitizing effects known.*
- **Subacute to chronic toxicity:** *No effects known*
- **Additional toxicological information:** *Above given information is based on long term experience.*

· <b>NOAEC</b>		
<b>7429-90-5 aluminium powder (stabilized)</b>		
Inhalative	NOAEC	10 mg/m <sup>3</sup> (rat)

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## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Do not allow product to reach ground water, water course or sewage system.  
Generally not hazardous for water
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.  
Can be disposed of with household garbage with prior chemical-physical or biological treatment following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

- **European waste catalogue**

12 01 04	non-ferrous metal dust and particles
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- **Uncleaned packaging:**
- **Recommendation:**  
Disposal must be made according to official regulations.  
Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

## 14 Transport information

- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** 4.1 Flammable solids, self-reactive substances and solid desensitised explosives.
- **Danger code (Kemler):** 40
- **UN-Number:** 1309
- **Packaging group:** II
- **Hazard label** 4.1
- **UN proper shipping name:** 1309 ALUMINIUM-PULVER, ÜBERZOGEN  
1309 ALUMINIUM POWDER, COATED
- **Limited quantities (LQ)** LQ8
- **Transport category** 2
- **Tunnel restriction code** E
- **Maritime transport IMDG:**
- **IMDG Class:** 4.1
- **UN Number:** 1309
- **Label** 4.1
- **Packaging group:** II
- **EMS Number:** F-G,S-G
- **Marine pollutant:** No
- **Segregation groups** Powdered metals
- **Proper shipping name:** ALUMINIUM POWDER, COATED
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** 4.1
- **UN/ID Number:** 1309

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- **Label** 4.1
- **Packaging group:** II
- **Proper shipping name:** ALUMINIUM POWDER, COATED

## 15 Regulatory information

- **Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

## 16 Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

- **Department issuing MSDS:** O-SE-RA Regulatory Affairs

- **Contact:**

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- **Abbreviations and acronyms:**

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*IMDG: International Maritime Code for Dangerous Goods*

*IATA: International Air Transport Association*

*IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)*

*ICAO: International Civil Aviation Organization*

*ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)*

*GHS: Globally Harmonized System of Classification and Labelling of Chemicals*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*DNEL: Derived No-Effect Level (REACH)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

- **\* Data compared to the previous version altered.**