Safety Data Sheet

Aluminum chips and powder

Revision date: 17.07.2020

1. Identification

Product identifier

Aluminum chips and powder

CAS No: 7429-90-5

Details of the supplier of the safety data sheet

Company name: Powder Technology Inc.
Street: 1300 Grey Fox Road
Place: USA-55112 Arden Hills, MN

Telephone: +1 952 894-8737
e-mail: sales@powdertechnologyinc.com
Internet: http://www.powdertechnologyinc.com

Emergency phone number: +1 952 894 -8737

2. Hazard(s) identification

Classification of the chemical

Hazard categories:
Flammable solid: Flam. Sol. 1

Hazard Statements:
Flammable solid

Label elements

Signal word: Warning
Pictograms: flame

Hazard statements

Flammable solid

Precautionary statements
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting equipment.
Wear protective gloves/protective clothing/eye protection/face protection.
In case of fire: Use D -powder to extinguish.

Special labelling of certain mixtures
May form combustible dust concentrations in air.

Hazards not otherwise classified
No information available.
Safety Data Sheet

according to 29 CFR 1910.1200(g)

Aluminum chips and powder
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3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Substances</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum powder or chips</td>
<td>Flam. Sol. 1; H228</td>
<td>&lt;= 100 %</td>
</tr>
</tbody>
</table>

4. First-aid measures

**Description of first aid measures**

**General advice**
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled**
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**
Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**
Flush eyes with water as a precaution.

**If swallowed**
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Most important symptoms and effects, both acute and delayed**
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

**Indication of any immediate medical attention and special treatment needed**
No data available

5. Fire-fighting measures

**Extinguishing media Suitable**

**extinguishing media**
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Unsuitable extinguishing media**
Water Carbon dioxide (CO2) ABC powder

**Special hazards arising from the substance or mixture**
No data available

**Advice for firefighters**
Wear self-contained breathing apparatus for firefighting if necessary.

**Further information**
Use water spray to cool unopened containers.
6. Accidental release measures

Personal precautions, protective equipment, and emergency procedures
Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.
For personal protection see section 8.

Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up
Sweep up and shovel. 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). Do not flush with water. Keep in suitable, closed containers for disposal. Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13). Sweep up and shovel. 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. Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).

7. Handling and storage

Precautions for safe handling
Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge.

Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry and well-ventilated place. Store in original container. Do not store near combustible materials. Keep in a cool place away from acids. Keep in a cool place away from bases. Keep in a cool place away from oxidizing agents. Keep container tightly closed in a dry and well-ventilated place.

8. Exposure controls/personal protection

Control parameters

Exposure controls

Protective and hygiene measures
Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.

Eye/face protection
Wear eye/face protection. Suitable eye protection: Tightly sealed safety glasses. Required properties: dust proof.

Hand protection
When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Required properties: dust proof.
Skin protection
Flame-retardant protective clothing. Wear anti-static footwear and clothing

Respiratory protection
Respiratory protection necessary at: dust formation. Suitable respiratory protective equipment: particulates filter device (DIN EN 143). Filtering device (full mask or mouthpiece) with filter: P 2 / P 3, white

9. Physical and chemical properties

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Form: powder</td>
</tr>
<tr>
<td>Color</td>
<td>silver</td>
</tr>
<tr>
<td>Odor</td>
<td>odorless</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Melting point/range: 660 °C (1,220 °F)</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>2,467 °C (4,473 °F)</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>May form combustible dust concentrations in air.</td>
</tr>
<tr>
<td>Upper/lower flammability/explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>2.7 g/mL at 25 °C (77 °F)</td>
</tr>
<tr>
<td>Water solubility</td>
<td>insoluble</td>
</tr>
<tr>
<td>Partition coefficient: n- octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>not auto-flammable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Risk of dust explosion.</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Other safety information</td>
<td>No data available</td>
</tr>
</tbody>
</table>
10. Stability and reactivity

Reactivity
No data available

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
Risk of dust explosion. Reacts with water to generate Hydrogen gas. Reacts with the following substances: Acids, Bases, Oxidizing agents, Halogens

Conditions to avoid
Humid air water
Heat, flames, and sparks. Extremes of temperature and direct sunlight.

Incompatible materials
Acids, Bases, Halogens, Oxidizing agents

Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Aluminum Oxide
Other decomposition products - No data available
In the event of fire: see section 5

11. Toxicological information

Information on toxicological effects

Skin corrosion/irritation
No data available

Serious eye damage/eye irritation
No data available

Respiratory or skin sensitization
No data available

Germ cell mutagenicity
No data available

Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity
No data available

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available
12. Ecological information

Ecotoxicity  
The product is not: Ecotoxic.

Persistence and degradability  
The product has not been tested.

Bioaccumulative potential  
The product has not been tested.

Mobility in soil  
The product has not been tested.

Other adverse effects  
No information available.

13. Disposal considerations

Waste treatment methods

Advice on disposal  
Dispose of waste according to applicable legislation.

Contaminated packaging  
Wash with plenty of water. Completely emptied packages can be recycled.

14. Transport information

DOT (US)  
UN number: 1309  
Class: 4.1  
Packing group: II  
Proper shipping name: Aluminum powder, coated

IMDG  
UN number: 1309  
Class: 4.1  
Packing group: II  
EMS-No: F-G, S-G  
Proper shipping name: ALUMINIUM POWDER, COATED

IATA  
UN number: 1309  
Class: 4.1  
Packing group: II  
Proper shipping name: Aluminium powder, coated

Environmental hazards  
ENVIRONMENTALLY HAZARDOUS: no

Special precautions for user  
No information available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code  
not applicable
15. Regulatory information

SARA 302 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
The following components are subject to reporting levels established by SARA Title III, Section 313:

Aluminium powder (non pyrophoric)  CAS-No. 7429-90-5  Revision Date 1994-04-01

SARA 311/312 Hazards
Fire Hazard

Massachusetts Right To Know Components
Aluminium powder (non pyrophoric)  CAS-No. 7429-90-5  Revision Date 1994-04-01

Pennsylvania Right To Know Components
Aluminium powder (non pyrophoric)  CAS-No. 7429-90-5  Revision Date 1994-04-01

New Jersey Right To Know Components
Aluminium powder (non pyrophoric)  CAS-No. 7429-90-5  Revision Date 1994-04-01

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. Other information

Hazardous Materials Information Label (HMIS)
Health: 0
Flammability: 3
Physical Hazard: 3

NFPA Hazard Ratings
Health: 0
Flammability: 3
Reactivity: 3

Other data
The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.