

Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



54800 Aluminum Powder

Page 1

Revised edition: 18.04.2016

Version: 3.0

Printed: 31.01.2017

1. Identification of the Substance/Mixture and of the Company/Undertaking

1.1. Product Identifier

Product Name: Aluminum Powder

Article No.: 54800

1.2. Relevant identified Uses of the Substance or Mixture and Uses advised against

Identified uses:

Uses advised against:

1.3. Details of the Supplier of the Safety Data Sheet (Producer/Importer)

Company: Kremer Pigmente GmbH & Co. KG

Address: Hauptstr. 41-47, 88317 Aichstetten, Germany

Tel./Fax.: Tel +49 7565 914480, Fax +49 7565 1606

Internet: www.kremer-pigmente.de

E-Mail: info@kremer-pigmente.de

Importer: --

1.4. Emergency No.

Emergency No.: +49 7565 914480 (Mon-Fri 8:00 - 17:00)

2. Hazards Identification

2.1. Classification of the Substance or Mixture

Classification according to Regulation (EC) No. 1272/2008 (CLP/GHS)

H228 Flammable liquids, hazard category 1
H228 Flammable solid.
Cat.: 2

Classification according to Directive No. 67/548/EC or No. 1999/45/EC

R10 Flammable.
R15 Contact with water liberates extremely flammable gases.

Safety Phrases:

Possible Environmental Effects:

2.2. Label Elements

Classification according to Regulation (EC) No. 1272/2008 (CLP/GHS)

Hazard designation:



GHS02-2

Signal word:

Danger

Hazard designation:

next page: 2

Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



54800 Aluminum Powder

Page 2

Revised edition: 18.04.2016

Version: 3.0

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H228 Flammable solid.

Safety designation:

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/ clothing/ eye/ face protection.
P370+P378 In case of fire: Use sand, dry extinguishing powder or foam for extinction.

Hazardous components for labelling:

2.3. Other Hazards

3. Composition/Information on Ingredients

3.1. Substance

3.2. Mixture

Chemical Characterization: Aluminum powder

Information on Components / Hazardous Ingredients:

Aluminium powder (F; R11; H228); REACH Reg. No. 01-2119529243-45	50 - 100 %	CAS-Nr: 7429-90-5 EINECS-Nr: 231-072-3 EC-Nr: 013-002-00-1
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Additional information:

4. First Aid Measures

4.1. Description of the First Aid Measures

General information:

Take person away from hazardous area.

After inhalation:

Supply fresh air. Consult physician if symptoms persist.

After skin contact:

Wash off immediately with soap and plenty of water and rinse thoroughly.

After eye contact:

Remove contact lens.
Rinse open eye for several minutes under running water.
Seek medical attention if irritation persists.

After ingestion:

Do not give milk or alcoholic beverages to drink.
Never give anything by mouth to an unconscious person.
If symptoms persist consult physician.

4.2. Most important Symptoms and Effects, both Acute and Delayed

Symptoms:

No further information available.

Effects:

next page: 3

Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



54800 Aluminum Powder

Page 3

Revised edition: 18.04.2016

Version: 3.0

Printed: 31.01.2017

4. 3. Indication of any Immediate Medical Attention and special Treatment needed

Treatment:

No further information available.

5. Fire-Fighting Measures

5. 1. Extinguishing Media

Suitable extinguishing media:

Dry sand.

Special powder for metal fires

Unsuitable extinguishing media:

Carbon dioxide, foam, water.

ABC powder

5. 2. Special Hazards arising from the Substance or Mixture

Special hazards:

Contact with water liberates extremely flammable gases (hydrogen).

5. 3. Advice for Firefighters

Protective equipment:

Wear self-contained respiratory protective device.

Usual measures for chemical fires.

Further information:

6. Accidental Release Measures

6. 1. Personal Precautions, Protective Equipment and Emergency Procedures

Personal precautions:

Wear appropriate protective equipment. Keep spectators away.

Avoid formation of dust.

Keep away from sources of ignition. No smoking.

6. 2. Environmental Precautions

Environmental precautions:

Prevent contamination of soil, drains and surface waters.

6. 3. Methods and Material for Containment and Cleaning Up

Methods and material:

Do not use water or other watery cleaning fluids.

Clean up mechanically. Avoid dust formation.

Dispose of contaminated material as waste according to section 13.

Do not use vacuum cleaner.

6. 4. Reference to other Sections

Protective clothing, see Section 8.

7. Handling and Storage

7. 1. Precautions for Safe Handling

Instructions on safe handling:

Avoid formation of dust. Do not inhale dust.

next page: 4

Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



54800 Aluminum Powder

Page 4

Revised edition: 18.04.2016

Version: 3.0

Printed: 31.01.2017

Hygienic measures:

Do not eat or drink during work. Do not smoke.

Wash hands with soap and water.

7.2. Conditions for Safe Storage, including any Incompatibilities

Storage conditions:

Store in tightly sealed containers in a dry and well ventilated location.

Electric equipment have to comply with the technological safety standards.

Protect against humidity and water.

Requirements for storage areas and containers:

Keep container tightly closed.

Information on fire and explosion protection:

Keep away from sources of ignition - do not smoke. Take measures to prevent electrostatic discharge.

Dust may form an explosive mixture with air.

Ensure electrical continuity by bonding and grounding (earthing) all equipment.

Ground and bond containers when transferring material.

Do not store together with combustible and self-ignitable products.

Do not store together with: oxidants and acidic or alkali-containing products.

Storage class (VCI):

4.1 B, flammable solids

Further Information:

Store in a dry place.

7.3. Specific End Use(s)

Further information:

8. Exposure Controls/Personal Protection

8.1. Parameters to be Controlled

Parameters to be controlled (DE):

Aluminium powder (7429-90-5): TLV (TRGS 900; D) 10 mg/m³ (inhalable fraction); 1.35 mg/m³ (airborne fraction)

Parameters to be controlled:

Derived No-Effect Level (DNEL):

Predicted No-Effect Concentration (PNEC):

Additional Information:

Biological limit value (TRGS 903):

Aluminium (7429-90-5): 200 µg/l (urine)

8.2. Exposure Controls

Technical protective measures:

next page: 5

Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



54800 Aluminum Powder

Page 5

Revised edition: 18.04.2016

Version: 3.0

Printed: 31.01.2017

No further measures, see Section 7.

Personal Protection

General protective measures:

Keep away from foodstuffs and drinks. Do not eat, drink or smoke during work. Wash hands before breaks and at the end of work.

Respiratory protection:

Dust mask recommended when very dusty (with particle filter P1).

Hand protection:

*Protective gloves made of leather.
Protective gloves with long gauntlets.*

Protective glove material:

*Leather
Please note the manufacturers' detailed statements, especially about the minimum thickness and the minimum breakthrough time.*

Eye protection:

Eyewash bottle with pure water.

Body protection:

Protective clothing (flame-proof, antistatic).

Environmental precautions:

Prevent from getting into the soil, surface water and sewage system.

9. Physical and Chemical Properties

9.1. Information on Basic Physical and Chemical Properties

Form: powder

Color: silver

Odor: odorless

*Odor threshold:
No information available.*

*pH-Value:
not applicable*

Melting temperature: 660°C

Boiling temperature: 2467°C

*Flash point:
not available*

*Evaporation rate:
No information available.*

*Flammability (solid, gas): 340°C
Flammable solid, category 1*

*Upper explosion limit:
no information available*

next page: 6

Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



54800 Aluminum Powder

Page 6

Revised edition: 18.04.2016

Version: 3.0

Printed: 31.01.2017

<i>Lower explosion limit:</i>	30 g/m ³
<i>Vapor pressure:</i>	<i>not determined</i>
<i>Vapor density:</i>	<i>No information available.</i>
<i>Density:</i>	2.5 g/cm ³
<i>Solubility in water:</i>	<i>insoluble</i>
<i>Coefficient of variation (n-Octanol/Water):</i>	<i>no information available</i>
<i>Auto-ignition temperature:</i>	<i>No information available.</i>
<i>Decomposition temperature:</i>	<i>No data available.</i>
<i>Viscosity, dynamic:</i>	<i>not available</i>
<i>Explosive properties:</i>	<i>Product is not explosive; however, an explosive dust/air mixture can be formed.</i>
<i>Oxidizing properties:</i>	<i>no information available</i>
<i>Bulk density:</i>	

9.2. Further Information

Solubility in solvents:
Viscosity, kinematic
Burning class:
Solvent content:
Solid content:
Particle size:
Other information:

10. Stability and Reactivity

- 10.1. **Reactivity**
Stable if used according to specifications.
- 10.2. **Chemical Stability**
No decomposition if used according to specifications.
- 10.3. **Possibility of Hazardous Reactions**
Contact with acids and alkaline solutions can cause the development of hydrogen.
Dust can form explosive mixtures with air.
- 10.4. **Conditions to Avoid**

next page: 7

Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



54800 Aluminum Powder

Page 7

Revised edition: 18.04.2016

Version: 3.0

Printed: 31.01.2017

Conditions to avoid:

Avoid contact with heat, sparks and open fire.

Thermal decomposition:

10.5. Incompatible Materials

*Water
Oxidizing agents.
Acids and bases*

10.6. Hazardous Decomposition Products

No information available.

10.7. Further Information

11. Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity

LD50, oral:

No information available.

LD50, dermal:

No information available.

LC50, inhalation:

< 5 mg/l (4h, rat)

Primary effects

Irritant effect on skin:

No information available

Irritant effect on eyes:

No information available.

Inhalation:

No information available.

Ingestion:

No information available

Sensitization:

No sensitizing effects known.

Mutagenicity:

No mutagenic effects known.

Reproductive toxicity:

No relevant data found.

Cancerogenity:

No relevant data found.

Teratogenicity:

No information available.

Specific target organ toxicity (STOT):

No relevant data found.

Additional toxicological information:

next page: 8

Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



54800 Aluminum Powder

Page 8

Revised edition: 18.04.2016

Version: 3.0

Printed: 31.01.2017

12. Ecological Information

12.1. Aquatic Toxicity

No toxicity expected.

Fish toxicity:

Daphnia toxicity:

Bacteria toxicity:

Algae toxicity:

12.2. Persistency and Degradability

No information available.

12.3. Bioaccumulation

No information available.

12.4. Mobility

No information available.

12.5. Results of PBT- und vPvP Assessment

No data available.

12.6. Other Adverse Effects

Water hazard class:

Not hazardous.

Behaviour in sewage systems:

Further ecological effects:

*Avoid subsoil penetration. Prevent product from entering drains.
Do not contaminate surface water.*

AOX Value:

13. Disposal Considerations

13.1. Waste Treatment Methods

Product:

*Dispose of according to official national and local regulations.
Do not let product enter water systems.
Must not be disposed together with household garbage.*

European Waste Code (EWC):

120104 - Metal dust and particles

Uncleaned packaging:

Packaging may be disposed of in the same manner as the product.

Waste Code No.:

14. Transport Information

14.1. UN Number

ADR, IMDG, IATA

1309

14.2. UN Proper Shipping Name

ADR/RID:

ALUMINIUM-PULVER, ÜBERZOGEN

next page: 9

Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



54800 Aluminum Powder

Page 9

Revised edition: 18.04.2016

Version: 3.0

Printed: 31.01.2017

IMDG/IATA: ALUMINIUM POWDER, COATED

14. 3. Transport Hazard Classes

ADR Class: 4.1
Hazard no.: 4.1
Classification code: F3
Tunnel restriction code: E
IMDG Class (sea): 4.1
Hazard no.: 4.1
EmS No.: F-G, S-G
IATA Class: 4.1
Hazard no.: 4.1

14. 4. Packaging Group

ADR/RID: II
IMDG: II
IATA: II

14. 5. Environmental Hazards

None

14. 6. Special Precautions for User

not applicable

14. 7. Transportation in Bulk according to Annex II of MARPOL 73/78 and IBC-Code

not applicable

14. 8. Further Information

15. Regulatory Information

15. 1. Safety, Health and Environmental Regulations/Legislation specific for the Substance or Mixture

Water hazard class:

0, not hazardous (German Regulation)

Local regulations on chemical accidents:

Employment restrictions:

Restriction and prohibition of application:

EC. REACH, Section XVII, Restrictions on the Manufacture, Placing on the Market and Use of Certain Dangerous Substances, Preparations and Articles: not applicable

Technical instructions on air quality:

15. 2. Chemical Safety Assessment

No information available.

15. 3. Further Information

16. Other Information

This product should be stored, handled and used in accordance with good hygiene practices and in conformity with any legal

next page: 10

Safety Data Sheet

According to regulation (EC) No. 1907/2006 (REACH)



54800 Aluminum Powder

Page 10

Revised edition: 18.04.2016

Version: 3.0

Printed: 31.01.2017

regulations. This information contained herein is based on the present state of knowledge and is intended to describe our product from the point of view of safety requirements. It should be therefore not be construed as guaranteeing specific properties.