# ALUMINIUM FINE POWDER EXTRA PURE **MSDS**

CAS-No.: 7429-90-5 MSDS



# **MATERIAL SAFETY DATA SHEET (MSDS)**

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

#### **Product identifier**

Product form : Substance

EC Index-No. : 013-002-00-1 EC-No. : 231-072-3 CAS-No. : 7429-90-5 Product code : 00880

#### Relevant identified uses of the substance or mixture and uses advised against 1.2.

#### Relevant identified uses

Use of the substance/mixture : Laboratory chemicals, Manufacture of substances

#### 1.2.2. Uses advised against

No additional information available

#### Details of the supplier of the safety data sheet 1.3.

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#### **Emergency telephone number**

**Emergency number** : +91 22 6663 6663 (9:00am - 6:00 pm)

### **SECTION 2: Hazards identification**

### Classification of the substance or mixture

### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Pyorphoric Solids, H250

Category 1

Substances and Mixtures H261

which, in contact with water, emit flammable gases, Category 2

Full text of H statements: see section 16

#### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

F; R11 F: R15

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Full text of R-phrases: see section 16

### Adverse physicochemical, human health and environmental effects

No additional information available

### 2.2. Label elements

### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS02

Signal word (CLP) : Danger

Hazard statements (CLP) : H250 - Catches fire spontaneously if exposed to air.

H261 - In contact with water releases flammable gases.

Precautionary statements (CLP) : P223 - Do not allow contact with water.

P231+P232 - Handle under inert gas. Protect from moisture. P402+P404 - Store in a dry place. Store in a closed container.

#### 2.3. Other hazards

No additional information available

#### **SECTION 3: Composition/information on ingredients**

#### 3.1. Substances

Name : ALUMINIUM FINE POWDER Extra Pure

CAS-No. : 7429-90-5 EC-No. : 231-072-3 EC Index-No. : 013-002-00-1

Full text of R- and H-statements: see section 16

#### 3.2. Mixtures

Not applicable

### **SECTION 4: First aid measures**

### 4.1. Description of first aid measures

First-aid measures after inhalation : Assure fresh air breathing. If breathing is difficult, remove victim to fresh air and keep

at rest in a position comfortable for breathing.

First-aid measures after skin contact : Get medical advice/attention. Wash with plenty of water/....

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing. Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Get medical advice/attention.

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#### 4.2. Most important symptoms and effects, both acute and delayed

No additional information available

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

#### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide. Dry powder. Foam. Water spray. Unsuitable extinguishing media : Do not use extinguishing media containing water.

#### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Catches fire spontaneously if exposed to air.

Explosion hazard : May form flammable/explosive vapour-air mixture.

### 5.3. Advice for firefighters

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory

protection.

### **SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No open

flames. No smoking.

#### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required.

Emergency procedures : Ventilate area.

#### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as

possible. On land, sweep or shovel into suitable containers.

#### 6.4. Reference to other sections

No additional information available

### **SECTION 7: Handling and storage**

### 7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable. Do not allow contact with water.

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Precautions for safe handling : Avoid contact with skin and eyes. Use only non-sparking tools. Protect from

moisture. Handle under inert gas. Keep away from sources of ignition - No smoking.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed

areas with mild soap and water before eating, drinking or smoking and when leaving work.

Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed.

Ground/bond container and receiving equipment.

Storage conditions : Keep in fireproof place. Keep container tightly closed. Store in a dry place. Protect

from moisture.

Incompatible materials : Heat sources. Do not allow contact with water.

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#### 7.3. Specific end use(s)

No additional information available

#### **SECTION 8: Exposure controls/personal protection**

## 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

Hand protection : Protective gloves

Eye protection : Chemical goggles or safety glasses
Skin and body protection : Wear suitable protective clothing

Respiratory protection : [In case of inadequate ventilation] wear respiratory protection.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state : Solid

Molecular mass : 26.98 g/mol Colour : Grey powder.

Odour : odourless.

Odour threshold : No data available

pH : No data available

Relative evaporation rate (butylacetate=1) : No data available

Melting point : 660.37 °C

Freezing point : No data available

Boiling point : 2327 °C

Flash point : No data available

Auto-ignition temperature : 760 °C

Decomposition temperature : No data available

Flammability (solid, gas) : Highly flammable liquid and vapour, In contact with water releases flammable gases

which may ignite spontaneously.

Vapour pressure : No data available

Relative vapour density at 20 °C : No data available

Relative density : No data available

Density : 2.7 g/cm<sup>3</sup>

Solubility : Water: Insoluble in water

Log Pow : No data available

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Viscosity, kinematic : No data available

Viscosity, dynamic : No data available

Explosive properties : No data available

Oxidising properties : No data available

Explosive limits : No data available

#### 9.2. Other information

No additional information available

### **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

Explosive; fire, blast or projection hazard.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

In contact with water releases flammable gases which may ignite spontaneously.

### 10.4. Conditions to avoid

Open flame. Heat. Sparks.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

May release flammable gases.

### **SECTION 11: Toxicological information**

#### 11.1. Information on toxicological effects

Acute toxicity : Not classified

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Reproductive toxicity : Not classified STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

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### **SECTION 12: Ecological information**

#### 12.1. Toxicity

No additional information available

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

No additional information available

### **SECTION 13: Disposal considerations**

### 13.1. Waste treatment methods

Product/Packaging disposal

recommendations
Additional information

: Dispose of contents/container to hazardous or special waste collection point, in

: Handle empty containers with care because residual vapours are flammable.

accordance with local, regional, national and/or international regulation.

### **SECTION 14: Transport information**

In accordance with ADR / RID / IMDG / IATA / ADN

#### 14.1. UN number

UN-No. (ADR) : 1396 UN-No. (IMDG) : 1396 UN-No. (IATA) : 1396 UN-No. (ADN) : 1396 UN-No. (RID) : 1396

### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : ALUMINIUM POWDER, UNCOATED
Proper Shipping Name (IMDG) : ALUMINIUM POWDER, UNCOATED

Proper Shipping Name (IATA) : Aluminium powder, uncoated

Proper Shipping Name (ADN) : ALUMINIUM POWDER, UNCOATED Proper Shipping Name (RID) : ALUMINIUM POWDER, UNCOATED

Transport document description (ADR) : UN 1396 ALUMINIUM POWDER, UNCOATED, 4.3, II, (D/E) Transport document description (IMDG) : UN 1396 ALUMINIUM POWDER, UNCOATED, 4.3, II

Transport document description (IATA) : UN 1396 Aluminium powder, uncoated, 4.3, II

Transport document description (ADN) : UN 1396 ALUMINIUM POWDER, UNCOATED, 4.3, II
Transport document description (RID) : UN 1396 ALUMINIUM POWDER, UNCOATED, 4.3, II

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### 14.3. Transport hazard class(es)

### ADR

Transport hazard class(es) (ADR) : 4.3 Danger labels (ADR) : 4.3

:



### **IMDG**

Transport hazard class(es) (IMDG) : 4.3 Danger labels (IMDG) : 4.3

:



#### **IATA**

Transport hazard class(es) (IATA) : 4.3 Hazard labels (IATA) : 4.3

:



### ADN

Transport hazard class(es) (ADN) : 4.3 Danger labels (ADN) : 4.3

:



### RID

Transport hazard class(es) (RID) : 4.3 Danger labels (RID) : 4.3

:



## 14.4. Packing group

Packing group (ADR) : II
Packing group (IMDG) : II
Packing group (IATA) : II
Packing group (ADN) : II
Packing group (RID) : II

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#### 14.5. Environmental hazards

Dangerous for the environment : No Marine pollutant : No

Other information : No supplementary information available

### 14.6. Special precautions for user

#### - Overland transport

Classification code (ADR) : W2
Limited quantities (ADR) : 500g
Excepted quantities (ADR) : E2

Packing instructions (ADR) : P410, IBC07

Special packing provisions (ADR) : PP40
Mixed packing provisions (ADR) : MP14
Portable tank and bulk container : T3

instructions (ADR)

Portable tank and bulk container special

provisions (ADR)

Tank code (ADR) : SGAN
Vehicle for tank carriage : AT
Transport category (ADR) : 2
Special provisions for carriage - Packages : V1

(ADR)

Special provisions for carriage - Loading, : CV23

unloading and handling (ADR)

Hazard identification number (Kemler No.) : 423

Orange plates

423 1396

: TP33

Tunnel restriction code (ADR) : D/E EAC code : 4W

#### - Transport by sea

Limited quantities (IMDG) : 500 g Excepted quantities (IMDG) : E2 Packing instructions (IMDG) : P410 : PP40 Special packing provisions (IMDG) IBC packing instructions (IMDG) : IBC07 IBC special provisions (IMDG) : B21 : T3 Tank instructions (IMDG) : TP33 Tank special provisions (IMDG) EmS-No. (Fire) : F-G : S-O EmS-No. (Spillage) Stowage category (IMDG) : A Stowage and handling (IMDG) : H1

Segregation (IMDG) : SG32, SG35, SG36, SG26

Properties and observations (IMDG) : In contact with water, caustic alkalis or acids, evolves hydrogen, a flammable gas.

When finely divided aluminium dust is scattered, it is easily ignited by naked lights, causing explosion. May explode when in contact with oxidizing substances. Reacts

with liquid halogenated hydrocarbons.

MFAG-No : 138

- Air transport

PCA Excepted quantities (IATA) : E2

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PCA Limited quantities (IATA) : Y475 PCA limited quantity max net quantity : 5kg

(IATA)

PCA packing instructions (IATA) : 484
PCA max net quantity (IATA) : 15kg
CAO packing instructions (IATA) : 490
CAO max net quantity (IATA) : 50kg
Special provisions (IATA) : A3, A803
ERG code (IATA) : 4W

- Inland waterway transport

Classification code (ADN) : W2
Limited quantities (ADN) : 500 g
Excepted quantities (ADN) : E2
Equipment required (ADN) : PP, EX, A
Ventilation (ADN) : VE01
Provisions for handling and stowage of the : HA08

cargo (ADN)

Number of blue cones/lights (ADN) : 0

- Rail transport

Classification code (RID) : W2 Excepted quantities (RID) : E2

Packing instructions (RID) : P410, IBC07

Special packing provisions (RID) : PP40
Mixed packing provisions (RID) : MP14
Portable tank and bulk container : T3

instructions (RID)

Portable tank and bulk container special : TP33

provisions (RID)

Tank codes for RID tanks (RID) : SGAN
Transport category (RID) : 2
Special provisions for carriage – Packages : W1
(RID)

Special provisions for carriage - Loading,

: CW23

unloading and handling (RID)

Colis express (express parcels) (RID) : CE10 Hazard identification number (RID) : 423

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

Not applicable

### **SECTION 15: Regulatory information**

# 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

ALUMINIUM FINE POWDER Extra Pure is not on the REACH Candidate List ALUMINIUM FINE POWDER Extra Pure is not on the REACH Annex XIV List

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#### 15.1.2. National regulations

### Germany

Reference to AwSV : Water hazard class (WGK) nwg, Non-hazardous to water (Classification according to

AwSV; ID No. 1443)

12th Ordinance Implementing the Federal

Immission Control Act - 12.BImSchV

: Is not subject of the 12. BlmSchV (Hazardous Incident Ordinance)

#### **Netherlands**

SZW-lijst van kankerverwekkende stoffen : The substance is not listed SZW-lijst van mutagene stoffen : The substance is not listed NIET-limitatieve lijst van voor de : The substance is not listed voortplanting giftige stoffen - Borstvoeding

NIET-limitatieve lijst van voor de

voortplanting giftige stoffen -

: The substance is not listed

Vruchtbaarheid

NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Ontwikkeling : The substance is not listed

#### 15.2. **Chemical safety assessment**

No additional information available

### **SECTION 16: Other information**

### Full text of R-, H- and EUH-statements:

Pyr. Sol. 1	Pyorphoric Solids, Category 1
Water-react. 2	Substances and Mixtures which, in contact with water, emit flammable gases, Category 2
H250	Catches fire spontaneously if exposed to air.
H261	In contact with water releases flammable gases.
R11	Highly flammable
R15	Contact with water liberates extremely flammable gases
F	Highly flammable

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

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