

MATERIAL SAFETY DATA SHEET (MSDS)

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

1.1. 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

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

1.2.1. Relevant identified uses

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

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

CHEMIECALL
Jl. Diklat Pemda, Dukuh Pinang No. 24 RT.001/003
Kel. Bojong Nangka Kec. Kelapa Dua Tangerang 15821
Contact: +62(21) 54210228
info@chemiecall.com www.chemiecall.com

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Pyrophoric 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] Extra labelling to display Extra classification(s) to display

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.
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.

7.2. 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 ³
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 : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
Additional information : Handle empty containers with care because residual vapours are flammable.

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 instructions (ADR)	: T3
Portable tank and bulk container special provisions (ADR)	: TP33
Tank code (ADR)	: SGAN
Vehicle for tank carriage	: AT
Transport category (ADR)	: 2
Special provisions for carriage - Packages (ADR)	: V1
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV23
Hazard identification number (Kemler No.)	: 423
Orange plates	:

423

1396

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
Special packing provisions (IMDG)	: PP40
IBC packing instructions (IMDG)	: IBC07
IBC special provisions (IMDG)	: B21
Tank instructions (IMDG)	: T3
Tank special provisions (IMDG)	: TP33
EmS-No. (Fire)	: F-G
EmS-No. (Spillage)	: S-O
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 (IATA)	: 5kg
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 cargo (ADN)	: HA08
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 instructions (RID)	: T3
Portable tank and bulk container special provisions (RID)	: TP33
Tank codes for RID tanks (RID)	: SGAN
Transport category (RID)	: 2
Special provisions for carriage – Packages (RID)	: W1
Special provisions for carriage - Loading, unloading and handling (RID)	: CW23
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. BImSchV (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 voortplanting giftige stoffen – Borstvoeding : The substance is not listed

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

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	Pyrophoric 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