

MATERIAL SAFETY DATA SHEET (MSDS)

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

1.1. Product identifier

Product form : Substance
:
CAS-No. : 7439-89-6
Product code : 04210

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial
For professional use only
Use of the substance/mixture : Laboratory chemicals

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Flammable solids, H228
Category 1

Full text of H statements : see section 16

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

F; R11

Full text of R-phrases: see section 16

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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) :

H228 - Flammable solid.

Precautionary statements (CLP) :

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Name : IRON (METAL) FILINGS Extra Pure

CAS-No. : 7439-89-6

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 : Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration if necessary. If you feel unwell, seek medical advice.

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

First-aid measures after eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth out with water. If you feel unwell, seek medical advice.

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 : Water spray, dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂).

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Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Flammable solid.

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

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment.

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.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Clear up rapidly by scoop or vacuum.

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.

Precautions for safe handling : No open flames. No smoking.

Hygiene measures : 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. Use explosion-proof electrical/ventilating/lighting equipment.

Storage conditions : Heat sources. Direct sunlight. Keep in fireproof place.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

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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	: Wear appropriate mask

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Molecular mass	: 55.85 g/mol
Colour	: Black to grey.
Odour	: odourless.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 1535 °C
Freezing point	: No data available
Boiling point	: 3000 °C
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Flammable solid.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 7.86 g/cm ³
Solubility	: Water: Insoluble in water
Log Pow	: No data available
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

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SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Flammable solid. May form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Open flame. Overheating. Direct sunlight. 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

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

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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

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)	: 3089
UN-No. (IMDG)	: 3089
UN-No. (IATA)	: 3089
UN-No. (ADN)	: 3089
UN-No. (RID)	: 3089

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: METAL POWDER, FLAMMABLE, N.O.S.
Proper Shipping Name (IMDG)	: METAL POWDER, FLAMMABLE, N.O.S.
Proper Shipping Name (IATA)	: Metal powder, flammable, n.o.s.
Proper Shipping Name (ADN)	: METAL POWDER, FLAMMABLE, N.O.S.
Proper Shipping Name (RID)	: METAL POWDER, FLAMMABLE, N.O.S.
Transport document description (ADR)	: UN 3089 METAL POWDER, FLAMMABLE, N.O.S., 4.1, III, (E)
Transport document description (IMDG)	: UN 3089 METAL POWDER, FLAMMABLE, N.O.S., 4.1, III
Transport document description (IATA)	: UN 3089 Metal powder, flammable, n.o.s., 4.1, III
Transport document description (ADN)	: UN 3089 METAL POWDER, FLAMMABLE, N.O.S., 4.1, III
Transport document description (RID)	: UN 3089 METAL POWDER, FLAMMABLE, N.O.S., 4.1, III

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	: 4.1
Danger labels (ADR)	: 4.1



IMDG

Transport hazard class(es) (IMDG)	: 4.1
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Danger labels (IMDG) : 4.1



IATA

Transport hazard class(es) (IATA) : 4.1

Hazard labels (IATA) : 4.1



ADN

Transport hazard class(es) (ADN) : 4.1

Danger labels (ADN) : 4.1



RID

Transport hazard class(es) (RID) : 4.1

Danger labels (RID) : 4.1



14.4. Packing group

Packing group (ADR) : III

Packing group (IMDG) : III

Packing group (IATA) : III

Packing group (ADN) : III

Packing group (RID) : III

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) : F3


Special provisions (ADR) : 552

Limited quantities (ADR) : 5kg

Excepted quantities (ADR) : E1

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Packing instructions (ADR)	: P002, IBC08, R001
Special packing provisions (ADR)	: B4
Mixed packing provisions (ADR)	: MP11
Portable tank and bulk container instructions (ADR)	: T1
Portable tank and bulk container special provisions (ADR)	: TP33
Tank code (ADR)	: SGAV
Vehicle for tank carriage	: AT
Transport category (ADR)	: 3
Special provisions for carriage - Packages (ADR)	: V11
Special provisions for carriage - Bulk (ADR)	: VC1, VC2
Hazard identification number (Kemler No.)	: 40
Orange plates	: 
Tunnel restriction code (ADR)	: E
EAC code	: 4Y

- Transport by sea

Special provisions (IMDG)	: 223
Limited quantities (IMDG)	: 5 kg
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P002
IBC packing instructions (IMDG)	: IBC08
IBC special provisions (IMDG)	: B2, B4
Tank instructions (IMDG)	: T1
Tank special provisions (IMDG)	: TP33
EmS-No. (Fire)	: F-G
EmS-No. (Spillage)	: S-G
Stowage category (IMDG)	: B
Stowage and handling (IMDG)	: H1
Segregation (IMDG)	: SG17, SG25, SG26
MFAG-No	: 170

- Air transport

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y443
PCA limited quantity max net quantity (IATA)	: 10kg
PCA packing instructions (IATA)	: 446
PCA max net quantity (IATA)	: 25kg
CAO packing instructions (IATA)	: 449
CAO max net quantity (IATA)	: 100kg
Special provisions (IATA)	: A3
ERG code (IATA)	: 3L

- Inland waterway transport

Classification code (ADN)	: F3
Special provisions (ADN)	: 552
Limited quantities (ADN)	: 5 kg
Excepted quantities (ADN)	: E1
Equipment required (ADN)	: PP

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Number of blue cones/lights (ADN) : 0

- Rail transport

Classification code (RID) : F3
Special provisions (RID) : 552
Limited quantities (RID) : 5kg
Excepted quantities (RID) : E1
Packing instructions (RID) : P002, IBC08, R001
Special packing provisions (RID) : B4
Mixed packing provisions (RID) : MP11
Portable tank and bulk container instructions (RID) : T1
Portable tank and bulk container special provisions (RID) : TP33
Tank codes for RID tanks (RID) : SGAV
Transport category (RID) : 3
Special provisions for carriage – Packages (RID) : W1
Special provisions for carriage – Bulk (RID) : VC1, VC2
Colis express (express parcels) (RID) : CE11
Hazard identification number (RID) : 40

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

IRON (METAL) FILINGS Extra Pure is not on the REACH Candidate List

IRON (METAL) FILINGS Extra Pure is not on the REACH Annex XIV List

15.1.2. National regulations

Germany

Reference to AwSV : Water hazard class (WGK) nwg, Non-hazardous to water (Classification according to AwSV; ID No. 748)

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

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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:

Flam. Sol. 1	Flammable solids, Category 1
H228	Flammable solid.
R11	Highly flammable
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