

Safety Data Sheet

Iron powder

Revision Date: 8/14/2019

Date Issued: 8/14/2019

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY / UNDERTAKING

Product name	Iron powder
Product code	NM-0019
CAS	7439-89-6
REACH No.	A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.
Identified uses	Laboratory chemicals, Manufacture of substances
Supplier	IoLiTec Ionic Liquids Technologies GmbH Salzstrasse 184 D – 74076 Heilbronn Germany
Telephone	+49 (0)7131-89839-0
Fax	+49 (0)7131-89839-109
Emergency telephone	+49 (0)176-84850874
Email	msds@iolitec.de

2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable solids, Category 1, H228

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Classification (67/548/EEC or 1999/45/EC)

Flammable metal powder

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008, GHS)

Pictogram	
Signal word	Warning
Hazard statement(s) H228	Flammable solid.
Precautionary statement(s) P210	Keep away from heat/sparks/open flames/hot surfaces . - No smoking.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray .
P280	Wear protectic gloves/protective clothing/eye protection/face protection.
P370 + P378	In case of fire: Use sand or fire extinguisher class D for extinction
P422	Store contents under nitrogen or argon.
Caution - substance not yet tested completely.	
Supplemental Hazard Statements	none

Labelling (67/548/EEC or 1999/45/EC)

Hazard symbol(s)



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R-phrases(s)

R15 Contact with water liberates extremely flammable gases.

R17 Spontaneously flammable in air.

S-phrases(s)

S6 Keep under Argon.

S9 Keep container in a well-ventilated place.

S16 Keep away from sources of ignition - No smoking.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

Caution - substance not yet tested completely.

3 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient name	Contents	Health(Class)	Risk(R/No.)
Iron	99.9%		Substance not yet fully tested!

Formula

Fe (partially passivated w/[O] ~10%)

4 FIRST AID MEASURES

General	Contaminated clothing should be removed and washed before being reused.
Inhalation	Move the exposed person to fresh air at once. If respiratory problems, artificial respiration/oxygen.
Ingestion	Immediately rinse mouth and provide fresh air. Get medical attention immediately.

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Skin	Wash the skin immediately with water.
Eyes	Promptly wash eyes with plenty of water while lifting the eye lids. Get medical attention immediately. Continue to rinse for at least 15 minutes.

5 FIRE FIGHTING MEASURES

Extinguishing media	Use: Dry chemical powder, carbon dioxide, appropriate foam. Do not use water.
Special risks	Material in powder form: risk of dust explosion. Emission of toxic fumes under fire conditions possible.
Protective measures in fire	Wear self-contained breathing apparatus and protective clothing.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions during spill	Evacuate area. Shut off all heat or ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Wear self-contained breathing apparatus, rubber boots and gloves.
Spill cleanup methods	Avoid contact with skin or inhalation of spillage, dust or vapour, Avoid dust formation. Collect and reclaim or dispose in sealed containers in license waste.

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7 HANDLING AND STORAGE

Usage precautions

Avoid contact with eyes, skin and clothing.
Keep away from heat, sparks and open flame.
Do not use in confined spaces without adequate ventilation and/or respirator.

Storage precautions

Store in a closed container at moderate temperatures in dry, well ventilated area.
Store contents under inert gas (nitrogen or argon).

Special storage criteria

Pressure development possible. Store away from oxidizing agents, halogens, acids and water.

8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Personal protective equipment

Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

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Body Protection

Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Solid
Color	Black
Odor/taste	No characteristic odor.
Melting Point	~232°C
Flammability	Highly flammable
Density	7.3 g/cm ³ (20°C)
Water	Insoluble

10 STABILITY AND REACTIVITY

Stability	No particular stability concerns if handled according to specifications.
Conditions to avoid	Air, moisture, oxidizing agents, acids, strong bases, sulfur, halogens
Hazardous Decomposition Products	Metal oxide fume.

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11 TOXICOLOGICAL INFORMATION

Acute toxicity

LD50 oral 20000 mg/kg (gpg)

LD50 oral 30000 mg/kg (rat)

LDLo 20 mg/kg (rbt)

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

no data available

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

Potential health effects

Ingestion Harmful if swallowed.

Inhalation Irritating

Skin Irritating

Eyes Irritating

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Additional Information

RTECS: Not available

Full Data on the toxicity of this product are not available. Hazardous properties cannot be excluded.

12 ECOLOGICAL INFORMATION

Environmental hazards

Avoid washing into water courses. Avoid contaminating public drains or water supply.

13 DISPOSAL CONSIDERATIONS

Disposal method

Contact specialist disposal companies.
Dispose of in accordance with Local Authority requirements. Recover and reclaim or recycle, if practical.

14 TRANSPORT INFORMATION

UN number: UN 3089

UN proper shipping name

ADR/RID: METAL POWDER, FLAMMABLE, N.O.S.
(IRON)

IMDG: METAL POWDER, FLAMMABLE, N.O.S.
(IRON)

IATA: Metal powder, flammable, n.o.s. (iron)

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Transport hazard class(es)

ADR/RID: 4.1

IMDG: 4.1

IATA: 4.1

Packaging group

ADR/RID: III

IMDG: III

IATA: III

Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

Special precautions for user

no data available.

15 REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

no data available

Chemical Safety Assessment

no data available

Country specific information:

Germany

Substance No: 748 non-hazardous to waters

Classification according to the Administrative Regulation of Substances Hazardous to Water (VwVwS)

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16 OTHER INFORMATION

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