

Material Safety Data Sheet

Stainless steel powder

Revision Date: 1/10/2017

Date Issued: 4/17/2018

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

Product name	Stainless steel powder
Product code	NM-0035
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 – 898390
Fax	+49 (0)7131 – 89839109
Emergency telephone	+49 (0)176 – 84850874
Email	msds@iolitec.de

2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

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

Flammable metal powder

Classification (REGULATION (EC) No 1272/2008)

Flammable solids, Category 1, H228

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Serious eye damage/Eye irritation, Category 2, H319

Specific Target Organ Toxicity - Single exposure: Respiratory tract irritation,
Category 3, H335

2.2 Label elements

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

Hazard description:

Label for supply



F Highly flammable



Xi irritant

Risk phrases

R15: Contact with water liberates extremely flammable gases.

R17: Spontaneously flammable in air.

R36/37: Irritating to eyes and respiratory system.

Safety phrases

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.

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

Hazard statements



Danger

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H-phrases

H228: Flammable solid.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

Precautionary statements

P-phrases

P210: Keep away from heat/sparks/open flames/hot surfaces . - No smoking.

P261: Avoid breathing dust/fume/gas/mist/vapors/spray .

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P370 + P378: In case of fire: Use sand or fire extinguisher class D for extinction

P422: Store contents under nitrogen or argon

3 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient name	Stainless steel
	C: 0.03 %
	Mn: 2.00 %
	P: 0.045 %.
	S: 0.03 %.
	Si: 0.75 %.
	Cr: 16.0-18.0 %
	Ni: 10.0-14.0 %
	Mo: 2.0-3.0 %
	Fe: Balance

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CAS No.	7439-89-6
Empirical Formula	Fe
Molecular weight	55.85 amu

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. Seek immediate medical advice.
Ingestion	Immediately rinse mouth and provide fresh air. Get medical attention immediately.
Skin	Wash the skin immediately with water. Seek immediate medical advice.
Eyes	Promptly wash eyes with plenty of water while lifting the eye lids. Seek immediate medical advice. Continue to rinse for at least 15 minutes.

The following symptoms may occur: nausea, cramp, gastric or intestinal disorders.

5 FIRE FIGHTING MEASURES

Extinguishing media	Use: extinguishing powder. Do not use water, do not use carbon dioxide.
Protective measures in fire	Wear self-contained breathing apparatus and protective clothing.

6 ACCIDENTAL RELEASE MEASURES

Person-related safety precautions: Wear protective equipment.

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Keep unprotected persons away.

Ensure adequate ventilation.

Keep away from ignition sources

Measures for environmental protection: Do not allow material to be released to the environment without proper governmental permits.

Measures for cleaning/collecting: Ensure adequate ventilation.
Keep away from ignition sources.

7 HANDLING AND STORAGE

Usage precautions

Handle under dry argon.

Keep away from heat, sparks and open flame.

Do not use in confined spaces without adequate ventilation.

Storage precautions

Store in a tightly closed container in a cool, dry, well ventilated area.

Storage criteria

Chemical storage.

Do not store together with oxidizing salts, halogenated organics, other strong oxidants, strong acids and strong bases. Store away from air/water.

Store under dry inert gas.

8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Additional information about design of technical systems:

Properly operating chemical fume hood
designed for hazardous chemicals and

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having an average face velocity of at least
100 feet per minute.

Components with limit values that require monitoring at the workplace:

Not required.

Additional information: No data

General protective and hygienic measures

The usual precautionary measures for
handling chemicals should be followed.
Keep away from foodstuffs, beverages and
feed. Remove all soiled and contaminated
clothing immediately. Wash hands before
breaks and at the end of work. Avoid contact
with the eyes. Avoid contact with the eyes
and skin.

- **Breathing equipment:** Use suitable respirator when high
concentrations are present.
- **Protection of hands:** Impervious gloves
- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing.

9 PHYSICAL AND CHEMICAL PROPERTIES

Form:	Powder
Color:	Black
Odor:	Odorless
Melting point/Melting range:	2400-2800 ° C
Boiling point/Boiling range:	Not determined
Sublimation temperature / start:	Not determined

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Flash point:	Not applicable
Flammability (solid, gaseous)	Highly flammable.
Ignition temperature:	Not determined
Decomposition temperature:	Not determined
Explosion limits:	
Lower:	Not determined
Upper:	Not determined
Vapor pressure:	Not determined
Density:	Not determined
Solubility in / Miscibility with water	insoluble

10 STABILITY AND REACTIVITY

Thermal decomposition / conditions to be avoided:

Decomposition will not occur if used and stored according to specifications.

Materials to be avoided:

Acids, Water/moisture, Oxidizing agents, Air, Halogens

Dangerous reactions

Reacts with strong oxidizing agents

Dangerous products of decomposition: Metal oxide fume

11 TOXICOLOGICAL INFORMATION

Acute toxicity:

LD/LC50 values that are relevant for classification:

Oral: LD50: 20000 mg/kg (gpg)

LD50: 30000 mg/kg (rat)

LDLo: 20 mg/kg (rbt)

Primary irritant effect:

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on the skin: Irritant to skin and mucous membranes.

on the eye: Irritating effect.

Sensitization: No sensitizing effects known.

Other information (about experimental toxicology):

Tumorigenic effects have been observed on tests with laboratory animals.

Subacute to chronic toxicity: Iron compounds may cause vomiting, diarrhea, pink urine, black stool, and liver damage. May cause damage to the kidneys. Irritating to the respiratory tract, they may cause pulmonary fibrosis if dusts are inhaled.

Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. The Registry of Toxic Effects of Chemical Substances (RTECS) contains tumorigenic and/or carcinogenic and/or neoplastic data for components in this product. No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH

12 ECOLOGICAL INFORMATION

Do not allow material to be released to the environment without proper governmental permits.

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13 DISPOSAL CONSIDERATIONS

Disposal method

Consult state, local or national regulations to ensure proper disposal.
Disposal must be made according to official regulations.

14 TRANSPORT INFORMATION

DOT regulations:

Hazard class: 4.1

Identification number: UN3089

Packing group: III

Proper shipping name (technical name):

Metal powders, flammable, n.o.s., iron powder

Land transport ADR/RID (cross-border)

ADR/RID class: 4.1 Flammable solids

Item: 13c

Danger code (Kemler): 40

UN-Number: 3089

Description of goods:

Metal powders, flammable, n.o.s., iron powder

Maritime transport IMDG:

IMDG Class: 4.1

UN Number: 3089

Packaging group: III

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Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: 4.1

UN/ID Number: 3089

Packaging group: III

Proper shipping name:

Metal powder, flammable, n.o.s., stainless steel powder

15 REGULATORY INFORMATION

In accordance with local and national regulations.

16 OTHER INFORMATION

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