

Safety Data Sheet

Zinc powder

Revision Date: 8/14/2019

Date Issued: 8/14/2019

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

Product name	Zinc powder
Product code	NM-0045
CAS	7440-66-6
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)

Pyrophoric solids, Category 1, H250

Substances and mixtures, which in contact with water, emit flammable gases,

Category 1, H260

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Hazardous to the aquatic environment: Acute hazard, Category 1, H400

Hazardous to the aquatic environment: Chronic hazard, Category 1, H410

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

Flammable solid

2.2 Label elements

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

Pictogram



Signal word

Danger

Hazard statement(s)

H250

Catches fire spontaneously if exposed to air.

H260

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

H400

Very toxic to aquatic life.

H410

Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P222

Do not allow contact with air.

P223

Keep away from any possible contact with water, because of violent reaction and possible flash fire.

P231+P232

Handle under inert gas. Protect from moisture.

P273

Avoid release to the environment.

P370 + P378

In case of fire: Use sand or fire extinguisher class D for extinction.

P422

Store contents under inert gas.

Caution - substance not yet tested completely.

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Supplemental Hazard Statements none

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

Hazard symbol(s)



R-phrase(s)

R15 Contact with water liberates extremely flammable gases.

R17 Spontaneously flammable in air.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

S-phrase(s)

S7 Keep container tightly closed.

S43 In case of fire, use sand or fire extinguisher class D, never use water.

S46 If swallowed, seek medical advice immediately and show this container or label.

S60 This material and its container must be disposed of as hazardous waste.

S61 Avoid release to the environment. Refer to special instructions/safety data sheets.

Caution - substance not yet tested completely.

3 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient name	Contents	Health(Class)	Risk(R/No.)
Zinc	99.9%		Substance not yet fully tested!
Formula	Molecular Weight		
Zn	65.39 g/mol		

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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. Do not induce vomiting. Get medical attention immediately.
Skin	Wash the skin immediately with soap and water. Get medical attention immediately.
Eyes	Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention immediately. Continue to rinse.

5 FIRE FIGHTING MEASURES

Extinguishing media	Extinguishing powder for metal powders. DO NOT USE WATER. Limestone powder, dry sand.
Unsuitable extinguishing agents	Water
Special fire fighting procedures	-
Unusual fire & explosion hazards	-
Protective measures in fire	Wear self-contained breathing apparatus as combustion may produce hazardous fumes.

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6 ACCIDENTAL RELEASE MEASURES

Personal precautions during spill Wear protective clothing and avoid inhalation as well as skin or eye contact. Keep away from ignition sources.

Precautions to protect environment Do not wash into water courses. Do not allow this material to be released to the environment without proper governmental permits.

Spill cleanup methods Avoid contact with skin or inhalation of spillage, dust or vapor, Avoid dust formation. Collect and reclaim or dispose in sealed containers in license waste. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate.

7 HANDLING AND STORAGE

Usage precautions 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, acids. Store away from air/water.

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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.

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).

Exposure Limits

RECOMMENDATIONS OF MAK-COMMISSION

This data is recommended by scientific experience and is not established law.

0,1 mg/m³ with reference to the alveolar fraction

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9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Powder
Color	Black gray
Odor/taste	No characteristic odor.
Boiling Point	907 °C
Melting Point	419.5 °C
Flammability	Highly Flammable Contact with water liberates extremely flammable gases.
Autoignition Temp	Spontaneously flammable in air
SG/Density	7.133 g/cm ³ at 20°C
Solubility in Water	Insoluble

10 STABILITY AND REACTIVITY

Stability	No particular stability concerns.
Conditions to avoid	Contact with water releases flammable gases

11 TOXICOLOGICAL INFORMATION

Acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

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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

Inhalation

May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion

May be harmful if swallowed.

Skin

May be harmful if absorbed through skin. May cause skin irritation.

Eyes

May cause eye irritation.

Additional Information

RTECS: Not available

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

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12 ECOLOGICAL INFORMATION

Environmental hazards

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

ECOTOXICOLOGICAL DATA

LC50 Fish (96 hours)

Minimum: 0,182 mg/l

Maximum: 156 mg/l

Median: 2,01 mg/l

Study number: 82

Reference for median: Ismail, P. 1988. Influence of Salinity on the Toxicity of Zinc and Copper to Guppy. Malays.Appl.Biol. 17(1):31-38; Carlson, A.R., and T.H. Roush 1985. Site-Specific Water Quality Studies of the Straight River, Minnesota: Complex Effluent Toxicity, Zinc

LC50 Crustaceans (48 hours)

Minimum: 0,065 mg/l

Maximum: 35 mg/l

Median: 0,131 mg/l

Study number: 25

Reference for median: Belanger, S.E., and D.S. Cherry 1990. Interacting Effects of pH Acclimation, pH, and Heavy Metals on Acute and Chronic Toxicity to Ceriodaphnia dubia (Cladocera). J.Crustac.Biol. 10(2):225-235

EC50 Crustaceans (48 hours)

Minimum: 0,07 mg/l

Maximum: 4,31 mg/l

Median: 1,33 mg/l

Study number: 51

Reference for median: Muysen, B.T.A., B.T.A. Bossuyt, and C.R. Janssen 2005. Inter- and Intra-Species Variation in Acute Zinc Tolerance of Field-Collected Cladoceran Populations. Chemosphere 61(8):1159-1167

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EC50 Algae (72 or 96 hours)

Test duration: 72 hours

Minimum: 0,106 mg/l

Maximum: 2,05 mg/l

Median: 0,713 mg/l

Study number: 7

Reference for median: De Schamphelaere, K.A.C., S. Lofts, and C.R. Janssen 2005. Bioavailability Models for Predicting Acute and Chronic Toxicity of Zinc to Algae, Daphnids, and Fish in Natural Surface Waters. Environ.Toxicol.Chem. 24(5):1190-1197

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 1436

UN proper shipping name

ADR/RID: ZINK-PULVER

IMDG: ZINC POWDER

IATA: Zinc powder

Transport hazard class(es)

ADR/RID: 4.3 (4.2)

IMDG: 4.3 (4.2)

IATA: 4.3 (4.2)

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Packaging group

ADR/RID: II

IMDG: II

IATA: II

Environmental hazards

ADR/RID: yes

IMDG Marine pollutant: yes

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: Classification according to German Regulation VwVwS:

Reg.no. 7325: German Regulation WGK 2 (Water hazard class 2)

hazard to waters.

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16 OTHER INFORMATION

DISCLAIMER

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