

Material Safety Data Sheet

Zinc Nanopowder, 35 nm

Revision Date: 02/04/2009

Date Issued: 11/24/2006

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

Product name	Zinc
Product code	NM-0025-UP
Supplier	IoLiTec Ionic Liquids Technologies GmbH Ferdinand-Porsche-Straße 5/1 D-79211 Denzlingen Germany
Telephone	+49 (0)7666 - 9129572
Fax	+49 (0)7666 - 9129345
Emergency telephone	+49 (0)179-5322578
Email	msds@iolitec.de

2 HAZARDS IDENTIFICATION

F Highly flammable
R15, R17 flammable in contact with water and air

3 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient name	Zinc
Empirical Formula	Zn (partially passivated w/[O] ~10%)
CAS No.	7440-66-6

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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 fro 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

Protective equipment	Safety goggles. Chemical resistant gloves. Protective clothing. Respirator when high concentrations are present.
Process control measures	Provide eyewash station and safety shower.
Ventilation	Provide adequate general and local exhaust ventilation.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Powder
Color	Black gray
Odor/taste	No characteristic odor.
Boiling Point	907 °C
Melting Point	419.5 °C
Flash Point	N/A
Flammability	Highly Flammable Contact with water liberates extremely flammable gases.
Autoignition Temp	Spontaneously flammable in air
Oxidizing Properties	N/A
Explosive Properties	N/A
Explosion Limits	N/A

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Vapor Pressure	N/A
SG/Density	7.133 g/cm ³ at 20 °C
Partition Coefficient	N/A
Viscosity	N/A
Vapor Density	N/A
Saturated Vapor Conc.	N/A
Evaporation Rate	N/A
Bulk Density	N/A
Decomposition Temp.	N/A
Solvent Content	N/A
Water Content	N/A
Surface Tension	N/A
Conductivity	N/A
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

Ingestion	irritating effect
Skin	irritating effect
Eyes	irritating effect
Other information	N/A

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12 ECOLOGICAL INFORMATION

Environmental hazards

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

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

Land transport RID/ADR

UN#: 1436
Class: 4.3
Packing group: II
Item: 14 b
Danger Code (Kemler): 423

Proper Shipping Name: Zinc powder

Maritime transport IMDG

UN#: 1436
Class: 4.3
Packing group: II

Proper Shipping Name: Zinc powder

Air transport IATA

UN#: 1436

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Class: 4.3

Packing group: II

Proper Shipping Name: Zinc powder

15 REGULATORY INFORMATION

Label for supply

F Highly Flammable

Risk phrases

R15 contact with water liberates extremely flammable gases

R17 spontaneously flammable in air

Safety phrases

S7-8 Keep container tightly closed and dry

S43 In case of fire, use extinguishing powder.

Never use water.

16 OTHER INFORMATION

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