

Material Safety Data Sheet

Iron(II,III)oxide

Revision Date: 01/12/2010

Date Issued: 01/03/2007

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

Product name Iron(II,III)oxide, Nanopowder
Product code NO-0007-HP
Supplier IoLiTec
Ionic Liquids Technologies GmbH
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2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

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

Harmful by inhalation. Irritating to eyes, respiratory system and skin.

Classification (REGULATION (EC) No 1272/2008)

According to Regulation (EC) No1272/2008

Skin irritation (Category 2)

Eye irritation (Category 2)

Specific target organ toxicity - single exposure (Category 3)

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2.2 Label elements

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

Hazard description:



Label for supply

Xi, Irritant.

Risk phrases

R: 36/37/38

Irritating to eyes, respiratory system and skin.

Safety phrases

S: 26-36/37/39

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection.

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

Hazard statements



Warning

H-phrases

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H332: Harmful if inhaled.

H335: May cause respiratory irritation.

Precautionary statements

P-phrases

P261: Avoid breathing dust/fume/gas/mist/vapours/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.

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3 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient name	Iron(II,III)oxide, 99 %
CAS No.	1317-61-9
Empirical Formula	Fe ₃ O ₄
Molecular weight	231.54 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.
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.
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.

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5 FIRE FIGHTING MEASURES

Extinguishing media	Suitable: Noncombustible. Use extinguishing media appropriate to surrounding fire conditions.
Special fire fighting procedures	No special procedures required.
Unusual fire & explosion hazards	Emission of toxic fumes
Protective measures in fire	Wear self-contained breathing apparatus as combustion may produce hazardous fumes.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions during spill	Wear protective clothing and avoid inhalation of powder, fume and vapor as well as skin or eye contact.
Precautions to protect environment	Avoid washing into water courses. Avoid contaminating public drains or water supply.
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.

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7 HANDLING AND STORAGE

Handling precautions

Do not breathe dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

Storage precautions

Keep closed. Store at moderate temperatures in dry, well ventilated area.

8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Protective equipment

Safety goggles. Chemical resistant gloves.
Protective clothing. Protective mask.

Process control measures

Provide eyewash station and safety shower.
Use engineering controls to reduce air contamination to permissible exposure levels.

Ventilation

Provide adequate general and local exhaust ventilation.

Respirators

Use high efficiency particulate respirator with appropriate filter.

Other protection

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Solid

Odor/taste

No characteristic odor.

PH

N/A

Boiling Point

N/A

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Melting Point	1,538 °C
Flash Point	N/A
Flammability	N/A
Autoignition Temp	N/A
Oxidizing Properties	N/A
Explosive Properties	N/A
Explosion Limits	N/A
Vapor Pressure	N/A
SG/Density	~5 g/cm ³
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	N/A

10 STABILITY AND REACTIVITY

Stability	No particular stability concerns.
Conditions to avoid	Strong acids, peroxides, Chloroformates.
Hazardous Decomposition	

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Products Consistency of decomposition products unknown.

11 TOXICOLOGICAL INFORMATION

Ingestion Harmful if swallowed.
Inhalation May be harmful if inhaled. Material is irritating to mucous membranes and upper respiratory tract.
Skin May cause irritation and allergic reaction.
Eyes May cause irritation and allergic reaction.

12 ECOLOGICAL INFORMATION

not specified

13 DISPOSAL CONSIDERATIONS

Disposal method Contact specialist disposal companies. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Dispose of in accordance with Local Authority requirements. Recover and reclaim or recycle, if practical.

14 TRANSPORT INFORMATION

General Not classified as dangerous for transport purposes.
UN No. 0

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Road transport notes	Not classified as dangerous for road transport.
Rail transport notes	Not classified as dangerous for rail transport.
Sea transport notes	Not classified as dangerous for sea transport.
Air transport notes	Not classified as dangerous for air transport.

15 REGULATORY INFORMATION

In accordance with local and national regulations.

16 OTHER INFORMATION

DISCLAIMER

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