

Material Safety Data Sheet

Samarium(III)oxide

Revision Date: 17/05/2011

Date Issued: 01/03/2007

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

Product name	Samarium(III)oxide, Nanopowder
Product code	NO-0028-HP
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)179 – 5322578
Email	msds@iolitec.de

2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

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

Not hazardous

Classification (REGULATION (EC) No 1272/2008)

Not hazardous

2.2 Label elements

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

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Hazard description:

Label for supply none

Information pertaining to particular dangers for man and environment

Risk phrases

none

Safety phrases

S22: Do not breathe dust.

S24/25: Avoid contact with skin and eyes.

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

none

Hazard statements

H-phrases

none

Precautionary statements

P-phrases

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

3 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient name	Samarium(III)oxide
CAS No.	12060-58-1
Empirical Formula	Sm ₂ O ₃
Molecular weight	348.72 amu

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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.
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	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.

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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.

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 container tightly closed. Store in a cool, dry place.

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8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Protective equipment	Safety goggles. Chemical resistant gloves. Protective clothing. Protective mask when high concentrations are present.
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.
Exposure limits	N/A

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Solid
Odor/taste	N/A
PH	N/A
Boiling Point	N/A
Melting Point	N/A
Flash Point	N/A
Flammability	N/A
Autoignition Temp	N/A
Oxidizing Properties	N/A
Explosive Properties	N/A
Explosion Limits	N/A

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Vapor Pressure	N/A
SG/Density	N/A
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/materials to avoid	Strong oxidizing agents
Hazardous Decomposition	Samarium oxides

11 TOXICOLOGICAL INFORMATION

Ingestion	May be harmful if swallowed.
Inhalation	May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
Skin	May cause irritation

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Eyes	May cause irritation
Sensitization	N/A
Acute toxicity	LD50, oral, rat: >5000 mg/kg

12 ECOLOGICAL INFORMATION

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

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
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.

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15 REGULATORY INFORMATION

In accordance with local and national regulations.

16 OTHER INFORMATION

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