

Material Safety Data Sheet

Samarium(II)oxide powder

Revision Date: 7/04/2019

Date Issued: 8/13/2019

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

| | |
|----------------------------|---|
| Product name | Samarium(III)oxide powder |
| Product code | NO-0028 |
| CAS | 12060-58-1 |
| 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)179-5322578 |
| Email | msds@iolitec.de |

2 HAZARDS IDENTIFICATION

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Not a hazardous substance or mixture according to EC-directives 67/548/EEC or 1999/45/EC.

Not a dangerous substance according to GHS.

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2.2 Label elements

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

Not a dangerous substance according to GHS.

Label for supply none

Precautionary statement(s)

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

Caution - substance not yet tested completely.

Supplemental Hazard Statements none

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

Label for supply none

S-phrases(s)

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

Caution - substance not yet tested completely.

3 COMPOSITION / INFORMATION ON INGREDIENTS

| Ingredient name | Contents | Health(Class) | Risk(R/No.) |
|-----------------|----------|---------------|---------------------------------|
| Samarium oxide | 99.9% | | Substance not yet fully tested! |

| Formula | Molecular Weight |
|--------------------------------|------------------|
| Sm ₂ O ₃ | 348.70 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. |
| 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 | Water spray, carbon dioxide, dry chemical powder, or appropriate foam. |
| 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 closed. This product is air and moisture sensitive.

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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

N/A

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Solid

Odor/taste

No characteristic odor.

Melting point:

2300 °C

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| | |
|----------------------|-------------------------------|
| Boiling Point | 4118°C |
| Density | 8.347g/cm ³ (20°C) |
| Solubility | Insoluble in water |

10 STABILITY AND REACTIVITY

| | |
|--------------------------------------|--|
| Stability | Moisture and air sensitive (absorbs carbon dioxide) |
| Conditions/materials to avoid | Strong oxidizing agents, phosphorous pentachloride, chlorine trifluorine or bromine pentafluorine. |
| Hazardous Decomposition | Carbon monoxide and dioxide. |

11 TOXICOLOGICAL INFORMATION

| | |
|---|-------------------|
| Acute toxicity | no data available |
| Skin corrosion/irritation | no data available |
| Serious eye damage/eye irritation | no data available |
| 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 |

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Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Subacute to chronic toxicity

no data available

Potential health effects

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

Eyes

May cause irritation

Additional Information

RTECS: Not available

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

12 ECOLOGICAL INFORMATION

TOXICOLOGICAL DATA

LD50 oral rat > 5000 mg/kg

Reference: Acute Toxicity Data. Journal of the American College of Toxicology, Part B. Vol. 12, Pg. 627, 1993.

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

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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. |
| 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

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

WGK2 - hazardous to waters (self classification)

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16 OTHER INFORMATION

DISCLAIMER

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