



# Keeling & Walker

World Leader in Tin Oxide



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## SAFETY DATA SHEET

Ref: SDS-001

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### Tin Oxide (SnO<sub>2</sub>) - All Grades

#### 1 Identification of the substance/mixture and of the company/undertaking

- 1.1. Product identifier** Tin Oxide  
CAS Number: 18282-10-5  
IUPAC Nomenclature: tin dioxide  
Synonyms: tin(IV) oxide, stannic oxide  
REACH registration number: 01-2119946062-44-0000
- 1.2. Relevant identified uses of the substance or mixture and uses advised against**  
Uses of the substance include, but are not limited to, as a raw material for use in ceramic colours and glazes, electrodes for glass melting, electrical contact materials, electrical and electronic components, brake pads, polishing  
There are currently no uses that are advised against for the substance
- 1.3. Details of the supplier of the safety data sheet**  
Keeling & Walker Limited  
Whieldon Road,  
Stoke-on-Trent,  
ST4 4JA, U.K.  
E-mail: technical@keelingwalker.co.uk
- 1.4. Emergency telephone number** + 44 (0) 1782 744 136

#### 2 Hazards identification

- 2.1. Classification of the substance or mixture**  
Tin oxide is not classified as a hazardous substance for carriage or supply
- 2.2. Label Elements** Not applicable
- 2.3. Other hazards** Chronic exposure to tin dioxide dust may cause Stannosis (pneumoconiosis)

#### 3 Composition/information on ingredients

- 3.1. Substances**  
tin dioxide, chemical formula SnO<sub>2</sub>  
Synonyms: tin(IV) oxide, tin oxide, stannic oxide  
CAS Number: 18282-10-5  
EC Number: 242-159-0

**Tin Oxide (SnO<sub>2</sub>) - All Grades****4 First aid measures****4.1. Description of first aid measures**

- Inhalation: Remove from exposure to fresh air  
Skin contact: The substance is non-irritating  
Eye contact: Flush eyes with copious amounts of water  
Ingestion: In case of persistent symptoms consult doctor

**4.2. Most important symptoms and effects, both acute and delayed**

- May be irritating to eyes  
Chronic exposure to tin dioxide dust may cause Stannosis (pneumoconiosis)

**4.3. Indication of any immediate medical attention and special treatment needed**

- No additional requirements other than those listed in Section 4.1.

**5 Firefighting measures****5.1. Extinguishing media**

- Suitable extinguishing media: As appropriate to the surrounding environment  
Unsuitable extinguishing media: None

**5.2. Special hazards arising from the substance or mixture**

- Special hazards: None known

**5.3. Advice for firefighters**

- Additional advice for firefighters: No special measures required

**6 Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

- Do not breathe dust. Wear appropriate personal protective equipment

**6.2. Environmental precautions**

- No special measures required

**6.3. Methods and material for containment and cleaning up**

- Vacuum cleaner or wet-sweeping. Neutralising chemicals not required

**6.4. Reference to other sections**

- Refer to Sections 8 and 13 for exposure controls/personal protection and disposal considerations

**7 Handling and storage****7.1. Precautions for safe handling**

- Avoid causing dust. Use local exhaust ventilation or adequate respiratory protective equipment

**7.2. Conditions for safe storage, including any incompatibilities**

- No special requirements

**7.3. Specific end use(s)**

- Refer to Section 1.2.

**Tin Oxide (SnO<sub>2</sub>) - All Grades****8 Exposure controls/personal protection****8.1. Control parameters**

Inhalation: Workplace Exposure Limits:

Tin dioxide: 2mg.m<sup>-3</sup> (as Sn) Long-term exposure limit  
(8-hour TWA reference period)4mg.m<sup>-3</sup> (as Sn) Short-term exposure limit  
(15-minute reference period)**8.2. Exposure controls**

Use local exhaust ventilation or adequate respiratory protective equipment to maintain exposure below Workplace Exposure Limits

**9 Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Appearance: White powder

Odour: Odourless

pH: neutral (100g/l slurry)

Melting point: Decomposes in air at 1613 °C

Flammability: Non-flammable

Relative density: 6.936

Solubility in water: Practically insoluble (below detection limit)

**9.2. Other information**

Non applicable

**10 Stability and reactivity****10.1. Reactivity** Stable under normal conditions of storage and use**10.2. Chemical stability** Stable under normal conditions of storage and use**10.3. Possibilities of hazardous reactions** None known**10.4. Conditions to avoid** None known**10.5. Incompatible materials** None known**10.6. Hazardous decomposition products** None known**11 Toxicological information****11.1. Information on toxicological effects**Acute toxicity, oral Non-toxic - LD<sub>50</sub> greater than 2.0g/kg bodyweightAcute toxicity, inhalation: Non-toxic - LC<sub>50</sub> greater than 2.04mg/l  
(maximum test concentration attainable)  
Chronic exposure to tin dioxide dust may cause Stannosis  
(pneumoconiosis)

Skin corrosion / irritation: Non-irritating

Skin sensitisation: Non-sensitising

Eye contact: May cause mild irritation to eyes

**Tin Oxide (SnO<sub>2</sub>) - All Grades****12 Ecological information**

Insoluble in water, stable and inert under normal environmental conditions

**12.1. Toxicity**

Invertebrates ( <i>Daphnia magna</i> )	24 h EC <sub>50</sub>	> 0.1 g/l
	48 h EC <sub>50</sub>	> 0.1 g/l
	NOEC	≥ 0.1 g/l
Single Cell Green Alga ( <i>Desmodesmus subspicatus</i> )	72 h EC <sub>50</sub>	> 100 mg/l
	72 h NOEC	9.77 mg/l
	72 h LOEC	31.3 mg/l
Fish ( <i>Oncorhynchus mykiss</i> )	96 h LC50	> 100 mg/l
Microorganisms ( <i>Activated sludge</i> )	3 h EC50	> 1000 mg/l

<b>12.2. Persistence and degradability</b>	No data
<b>12.3. Bioaccumulative potential</b>	No data
<b>12.4. Mobility in soil</b>	No data
<b>12.5. Results of PBT and vPvB assessment</b>	No data, assessment not required
<b>12.6. Other adverse effects</b>	None known

**13 Disposal considerations****13.1. Waste treatment methods**

Disposal of product / packaging: According to official regulations

**14 Transport information**

<b>14.1. UN Number</b>	Not classified as dangerous goods
<b>14.2. UN proper shipping name</b>	Not applicable
<b>14.3. Transport hazard class(es)</b>	Not applicable
<b>14.4. Packing group</b>	Not applicable
<b>14.5. Environmental hazards</b>	None known
<b>14.6. Special precautions for user</b>	None
<b>14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable

**15 Regulatory information**

<b>15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture</b>	Not applicable
<b>15.2. Chemical safety assessment</b>	Not required, substance is not classified

**16 Other information**

Exposure limits reference: EH40/2005 Workplace exposure limits (as amended December 2011)

Compiled in accordance with: Regulation (EC) No. 1272/2008

The information given is based on our present state of knowledge and does not represent a guarantee of any product characteristics

Supersedes Issue 6 Dated: 01/05/2013