



MATERIAL SAFETY DATA SHEET

Ref: MSDS-001
Date: 01/12/2010
Issue: 5
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Tin Oxide (SnO₂) - 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
- 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 SnO₂
Synonyms: tin(IV) oxide, tin oxide, stannic oxide
CAS Number: 18282-10-5
EC Number: 242-159-0

Tin Oxide (SnO₂) - 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 (SnO₂) - All Grades**8 Exposure controls/personal protection****8.1. Control parameters**

Inhalation: Workplace Exposure Limits:

Tin dioxide:	2mg.m ⁻³ (as Sn)	Long-term exposure limit (8-hour TWA reference period)
	4mg.m ⁻³ (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:	Approximately 1630 °C
Boiling point:	Sublimates between 1800 °C and 1900 °C
Flammability:	Non-flammable
Relative density:	Approximately 6.95
Solubility in water:	Insoluble

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**

Inhalation:	Chronic exposure to tin dioxide dust may cause Stannosis (pneumoconiosis)
Ingestion:	Non-toxic (LD ₅₀ greater than 2.0g/kg bodyweight)
Eye contact:	May be irritating to the eyes
Skin contact:	Non-irritating

Tin Oxide (SnO₂) - All Grades**12 Ecological information**

Insoluble in water, stable and inert under normal environmental conditions

12.1. Toxicity	No data
12.2. Persistence and degradability	No data
12.3. Bioaccumulative potential	No data
12.4. Mobility in soil	No data
12.5. Results of PBT and vPvB assessment	No data
12.6. Other adverse effects	None known

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

Disposal of product: According to official regulations

Disposal of packaging: According to official regulations

14 Transport information

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

15 Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Not applicable

15.2. Chemical safety assessment

Not available

16 Other information

Exposure limits reference: EH40/2005 Workplace exposure limits (as amended October 2007)

Compiled in accordance with: Regulation (EC) No. 1907/2006 Annex II as amended by Regulation 453/2010

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

Supersedes Issue 4 Dated: 15/08/2002