



MATERIAL SAFETY DATA SHEET  
(Directive 2001/58/EC)

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**STANOSTAT CONDUCTIVE POWDERS (ALL GRADES)**

**1. PRODUCT AND COMPANY INFORMATION**

- 1.1. Substance identification: STANOSTAT CONDUCTIVE POWDER
- 1.2. Company identification: Keeling & Walker Limited,  
Whieldon Road,  
Stoke-on-Trent,  
ST4 4JA, ENGLAND.
- 1.3. Emergency contact number: + 44 (0) 1782 744 136

**2. COMPOSITION / INFORMATION ON INGREDIENTS**

- 2.1. Mixed metal oxide of tin and antimony  
Tin (IV) oxide: 80% minimum      Antimony oxide: 20% maximum
- 2.2. Synonyms: Conductive tin oxide, conductive tin compound, tin antimony grey cassiterite
- 2.3. Chemical Abstract Number: CAS 68187-54-2  
European Inventory Number: EINECS 2691059

**3. HAZARDS IDENTIFICATION**

- 3.1. Antimony oxide is classified in CHIP3 as a Class 3 Carcinogen
- 3.2. Chronic exposure to tin oxide dust may result in Stannosis, a form of Pneumoconiosis
- 3.3. Hazard symbol: Xn: HARMFUL (St. Andrews Cross on orange background)

**4. FIRST AID MEASURES**

- 4.1. Inhalation: Remove from exposure to fresh air
- 4.2. Ingestion: Drink copious amounts of water
- 4.3. Eye contact: Flush eyes with copious amounts of water
- 4.4. Skin contact: Remove clothing and wash affected area with soap and water. Change work clothes daily.

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**5 FIRE-FIGHTING MEASURES**

- 5.1. Suitable extinguishing media: Water, foam  
5.2. Unsuitable extinguishing media: Acid  
5.3. Exposure hazards: None known  
5.4. Protective equipment for fire fighters: Use self-contained breathing apparatus

**6 ACCIDENTAL RELEASE MEASURES**

- 6.1. Personal precautions: Do not breathe dust. Wear personal protective equipment  
6.2. Environmental precautions: Dispose of material in accordance with Federal, State and Local regulations  
6.3. Neutralising chemicals: Not required  
6.4. Method of clean-up: Vacuum cleaner or wet-sweeping

**7 HANDLING AND STORAGE**

- 7.1. Precautions during handling: Avoid causing dust. Use local exhaust ventilation or adequate personal protective equipment  
7.2. Storage and packaging: No special requirements

**8 EXPOSURE CONTROLS / PERSONAL PROTECTION**

- 8.1. Inhalation: Occupational Exposure Limits:  
Tin oxide: 2mg m<sup>-3</sup> (as Sn) 8 hour time weighted average  
4mg m<sup>-3</sup> (as Sn) 10 minute short term exposure limit  
Antimony oxide: 0.5mg m<sup>-3</sup> (as Sb) 8 hour time-weighted average  
8.2. Protective measures: Use local exhaust ventilation (or wear dust mask) to maintain exposure below the Occupational Exposure Limits given above.  
Wear gloves, goggles and overalls

**9 PHYSICAL AND CHEMICAL PROPERTIES**

- 9.1. Appearance: White to blue-grey powder, no odour  
9.2. Specific gravity: Approximately 7.0  
9.3. Solubility in water: Insoluble  
9.4. Flammability: Non-flammable  
9.5. Boiling point: No information  
9.6. Vapour pressure: No information

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**10 STABILITY AND REACTIVITY**

- 10.1. Conditions to avoid: None known
- 10.2. Materials to avoid: Substances which may lead to the formation of volatile hydrides or halides of organic tin compounds
- 10.3. Hazardous decomposition products: None known

**11 TOXICOLOGICAL INFORMATION**

- 11.1. StanoStat Conductive Powders are mixed metal oxides of tin and antimony
- 11.2. Inhalation: Antimony oxide is a possible Carcinogen. Chronic exposure to tin oxide dust may cause Stannosis (pneumoconiosis)
- 11.3. Ingestion: Antimony oxide:  $LD_{50} > 34.6$  g/kg body weight  
Tin (IV) oxide:  $LD_{50} > 2.0$  g/kg body weight
- 11.4. Eye contact: May be irritating to eyes
- 11.5. Skin contact: May cause skin irritation or dermatitis

**12 ECOLOGICAL INFORMATION**

- 12.1. Environmental effect: Insoluble in water, stable and inert under normal environmental conditions

**13 DISPOSAL CONSIDERATIONS**

- 13.1. Disposal of product: Approved waste landfill site, with reference to Federal, State and Local regulations
- 13.2. Disposal of packaging: Landfill or incineration

**14 TRANSPORT INFORMATION**

- 14.1. Special precautions: None

**15 REGULATORY INFORMATION**

- 15.1. Risk Phrases: R40 - Limited evidence of a Carcinogenic effect
- 15.2. Safety Phrases: S22 - Do not breathe dust  
S36 - Wear suitable protective clothing
- 15.3. Classification Symbol: Xn - Harmful

**16 OTHER INFORMATION**

- 16.1. HMSO Publication: EH40 Occupational Exposure Limits  
The information given is based on our present state of knowledge and does not represent a guarantee of any product characteristics