

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

### Product identifier

**Product name:** Selenium Dioxide  
**CAS number:** 7446-08-4  
**EINECS number:** 231-194-7  
**Product code:** 30100275

**Company name:** Nexchem Ltd  
Unit 3 Barshaw Park  
Leycroft Road  
Leicester  
LE4 1ET  
Tel: 0116 2311130  
24/7 Emergency Tel: 0800 246 1274  
Email: [sales@nexchem.co.uk](mailto:sales@nexchem.co.uk)

## 2. HAZARDS IDENTIFICATION

### Classification of the substance or mixture:

**Classification under CHIP:** T: R23/25; Xn: R33; N: R50/53

**Classification under CLP:** Acute Tox. 3: H301; Aquatic Chronic 1: H410; STOT RE 2: H373; Aquatic Acute 1: H400;  
Acute Tox. 3: H331

**Most important adverse effects:** Toxic by inhalation and if swallowed. Danger of cumulative effects. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### Label elements

#### Label elements under CLP:

**Hazard statements:** H301: Toxic if swallowed.  
H331: Toxic if inhaled.  
H373: May cause damage to organs through prolonged or repeated exposure.  
H410: Very toxic to aquatic life with long lasting effects.

**Signal words:** Danger

**Hazard pictograms:** GHS06: Skull and crossbones  
GHS08: Health hazard  
GHS09: Environmental





# SAFETY DATA SHEET

## SELENIUM DIOXIDE

Issued: 08/10/2014

Page 2

**Precautionary statements:**

P261: Avoid breathing dust/fumes/gas/mist/vapours/spray.  
P273: Avoid release to the environment.  
P284: Wear respiratory protection.  
P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor.  
P311: Call a POISON CENTER or doctor.  
P501: Dispose of contents/container to hazardous or special waste collection point.

### Label elements under CHIP:

**Hazard symbols:**

Dangerous for the environment.  
Toxic.



**Risk phrases:**

R23/25: Toxic by inhalation and if swallowed.  
R33: Danger of cumulative effects.  
R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety phrases:**

S22: Do not breathe dust.  
S38: In case of insufficient ventilation, wear suitable respiratory equipment.  
S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
S61: Avoid release to the environment. Refer to special instructions / safety data sheets.

### Other hazards:

**PBT:** This product is not identified as a PBT substance.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

### Substances

**Chemical identity:** SELENIUM DIOXIDE

## 4. FIRST AID MEASURES

### Description of first aid measures:

**Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Transfer to hospital if there are burns or symptoms of poisoning.

**Eye contact:** Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination.

**Ingestion:** Wash out mouth with water. Do not induce vomiting. If conscious, give half a litre of water to drink immediately. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Transfer to hospital as soon as possible.

[cont...]



# SAFETY DATA SHEET

## SELENIUM DIOXIDE

Issued: 08/10/2014

Page 3

**Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. If conscious, ensure the casualty sits or lies down. If unconscious and breathing is OK, place in the recovery position. If unconscious, check for breathing and apply artificial respiration if necessary. If breathing becomes bubbly, have the casualty sit and provide oxygen if available. Transfer to hospital as soon as possible.

### Most important symptoms and effects, both acute and delayed:

**Skin contact:** There may be redness or whiteness of the skin in the area of exposure. Irritation or pain may occur at the site of contact. Absorption through the skin may be fatal.

**Eye contact:** There may be severe pain. The eyes may water profusely.

**Ingestion:** There may be soreness and redness of the mouth and throat. There may be vomiting. Convulsions may occur. There may be loss of consciousness.

**Inhalation:** There may be shortness of breath with a burning sensation in the throat. Absorption through the lungs can occur causing symptoms similar to those of ingestion. Convulsions may occur. There may be loss of consciousness.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

### Indication of any immediate medical attention and special treatment needed:

**Immediate/ special treatment:** Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

## 5. FIRE-FIGHTING MEASURES

**Extinguishing media:** Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

### Special hazards arising from the substance or mixture:

**Exposure hazards:** Toxic. In combustion emits toxic fumes.

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal precautions:** Notify the police and fire brigade immediately. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Do not create dust.

**Environmental precautions:** Do not discharge into drains or rivers.

[cont...]



# SAFETY DATA SHEET

## SELENIUM DIOXIDE

Issued: 08/10/2014

Page 4

### Methods and material for containment and cleaning up:

**Clean-up procedures:** Clean-up should be dealt with only by qualified personnel familiar with the specific substance.  
Transfer to a closable, labelled salvage container for disposal by an appropriate method.

**Reference to other sections:** Refer to section 8 of SDS.

## 7. HANDLING AND STORAGE

### Precautions for safe handling:

**Handling requirements:** Avoid direct contact with the substance. Ensure there is exhaust ventilation of the area.  
Avoid the formation or spread of dust in the air.

### Conditions for safe storage, including any incompatibilities:

**Storage conditions:** Store in cool, well-ventilated area. Keep container tightly closed. The floor of the storage room must be impermeable to prevent the escape of liquids. Hygroscopic.

**Specific end use(s):** No data available.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Control parameters:

**Workplace exposure limits:** No data available.

**DNEL / PNEC:** No data available.

### Exposure controls:

**Engineering measures:** Ensure there is exhaust ventilation of the area. The floor of the storage room must be impermeable to prevent the escape of liquids.

**Respiratory protection:** Self-contained breathing apparatus must be available in case of emergency. Particle filter class P1 (EN143).

**Hand protection:** Protective gloves.

**Eye protection:** Safety glasses with side-shields. Ensure eye bath is to hand.

**Skin protection:** Protective clothing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

**State:** Powder

**Colour:** White

**Melting point/range °C:** 315

**Relative density:** 3.950 g/cm<sup>3</sup>

**Other information:** No data available.

[cont...]



**SAFETY DATA SHEET**  
SELENIUM DIOXIDE

Issued: 08/10/2014

Page 5

## 10. STABILITY AND REACTIVITY

**Reactivity:** Stable under recommended transport or storage conditions.

**Chemical stability:** Stable under normal conditions.

**Possibility of hazardous reactions:**

**Hazardous reactions:** Hazardous reactions will not occur under normal transport or storage conditions.  
Decomposition may occur on exposure to conditions or materials listed below.

**Conditions to avoid:** Moist air.

**Incompatible materials**

**Materials to avoid:** Strong acids.

**Hazardous decomposition products:** In combustion emits toxic fumes

## 11. TOXICOLOGICAL INFORMATION

**Information on toxicological effects**

**Relevant hazards for substance:**

Hazard	Route	Basis
Acute toxicity (ac. tox. 3)	INH ING	Based on test data
STOT-repeated exposure	-	Based on test data

**Symptoms / routes of exposure:**

**Skin contact:** There may be redness or whiteness of the skin in the area of exposure. Irritation or pain may occur at the site of contact. Absorption through the skin may be fatal.

**Eye contact:** There may be severe pain. The eyes may water profusely.

**Ingestion:** There may be soreness and redness of the mouth and throat. There may be vomiting. Convulsions may occur. There may be loss of consciousness.

**Inhalation:** There may be shortness of breath with a burning sensation in the throat. Absorption through the lungs can occur causing symptoms similar to those of ingestion. Convulsions may occur. There may be loss of consciousness.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

## 12. ECOLOGICAL INFORMATION

**Toxicity:**

**Ecotoxicity values:** No data available.

[cont...]



**SAFETY DATA SHEET**  
SELENIUM DIOXIDE

Issued: 08/10/2014

Page 6

**Persistence and degradability:** No data available.

**Bioaccumulative potential:** No data available.

**Mobility in soil:**

**Results of PBT and vPvB assessment:**

**PBT identification:** This product is not identified as a PBT substance.

**Other adverse effects:** Toxic to aquatic organisms. Toxic to soil organisms.

### 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods:**

**Disposal operations:** Transfer to a suitable container and arrange for collection by specialised disposal company.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

### 14. TRANSPORT INFORMATION

**UN number:** UN3283

**UN proper shipping name:**

**Shipping name:** SELENIUM COMPOUND, SOLID, N.O.S.

**Transport hazard class(es):** 6.1

**Packing group:** III

**Environmentally hazardous:** Yes      **Marine pollutant:** No

**Special precautions for user:**

**Special precautions:** No special precautions.

**Tunnel code:** E

**Transport category:** 2

### 15. REGULATORY INFORMATION

**Note:** The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

[cont...]



**SAFETY DATA SHEET**  
SELENIUM DIOXIDE

Issued: 08/10/2014

Page 6

**16. OTHER INFORMATION**

**Other information:** This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

\* indicates text in the SDS which has changed since the last revision.

**Phrases used in s.2 and 3:**

H301: Toxic if swallowed.  
H331: Toxic if inhaled.  
H373: May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.  
H410: Very toxic to aquatic life with long lasting effects.  
R23/25: Toxic by inhalation and if swallowed.  
R33: Danger of cumulative effects.  
R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Legal disclaimer:**

The information contained in this SDS does not constitute a risk assessment, and should not replace the user's own assessment of risks as required by other health and safety legislation. This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.