



## Safety Data Sheet

According to Regulation (EC) 1907/2006



### 2832 Selenium(IV) Oxide

# Identification of the substance/preparation and of the company or firm

## 1.1 Identification of the substance or preparation

Name:

Selenium(IV) Oxide

## 1.2 Synonym:

Selenious Acid Anhydride, Selenium Dioxide

## 1.3 Use of the substance/preparation:

For laboratory utilisation, analysis, research and fine chemistry.

## 1.4 Identification of the company or firm:

PANREAC QUIMICA S.L.U.

C/Garraf 2

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(Barcelona) Spain

Tel. (+34) 937 489 400

e-mail: [product.safety@panreac.com](mailto:product.safety@panreac.com)

Emergencies:

Single telephone number for emergency calls: 112 (EU)

Tel.: (+34) 937 489 499

# Identification of dangers

Classification of the substance or the mixture.

**Classification Regulation (CE) n° 1272/2008.**

Acute Tox. 3

Acute Tox. 3

Aquatic Acute 1

Aquatic Chronic 1

**Hazard Pictograms**



**Signal word**

Danger

**Hazard statements**

H331 Toxic if inhaled.

H301 Toxic if swallowed.

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.

**Precautionary statements**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

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

P264 Wash...thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P501 Dispose of contents/container according to Directive 94/62/CE or 2008/98/CE.

**Classification (67/548/CEE or 1999/45/CE).**

**N** Dangerous for the environment R50/53

R33

**T** Toxic

R23/25

For the full text of the R-phrases mentioned in this section, see section 16.

# Component Composition/Information

Name: Selenium(IV) Oxide

Formula: SeO<sub>2</sub> M.= 110,96 CAS [7446-08-4]

EC number (EINECS): 231-194-7

EC index number: 034-002-00-8

## First aid

### 4.1 General indications:

Never provide drink or induce vomiting in the event of loss of consciousness.

### 4.2 Inhaling:

Take the person out into the fresh air. In the event sickness persists, seek medical assistance.

### 4.3 Contact with the skin:

Wash with plenty of water. Remove contaminated clothing.

### 4.4 Eyes:

Wash with plenty of water (for at least 15 minutes), keeping eyelids open. Seek immediate medical assistance.

### 4.5 Swallowing:

Drink large amounts of water. Induce vomiting. Seek immediate medical assistance.

## Fire-fighting means

### 5.1 Suitable fire-extinguishing means:

As appropriate to the environment.

### 5.2 Fire-fighting means which must NOT be used:

### 5.3 Special risks:

Incombustible. In the event of fire, toxic fumes may form.

### 5.4 Protective equipment:

## Measures to be taken in the event of accidental spillage

### 6.1 Individual precautions:

Do not inhale the dust.

### 6.2 Precautions for care of the environment:

Do not allow it to enter the drainage system. Avoid pollution of the soil, water supplies and drains.

### 6.3 Methods for collection/cleaning:

Collect up dry and deposit in waste containers for subsequent elimination in accordance with current legislation.

## Handling and storage

### 7.1 Handling:

No special indications.

### 7.2 Storage:

Well sealed containers. Dry atmosphere.

## Staff exposure/protection controls

### 8.1 Technical protective measures:

Ensure good ventilation and renewal of the air in the premises.

### 8.2 Exposure limit control:

VLA-ED(Se): 0,1 mg/m<sup>3</sup>

### 8.3 Respiratory protection:

If dust forms, use suitable respiratory protection.

### 8.4 Hand protection:

Use suitable gloves

### 8.5 Eye protection:

Use suitable goggles.

### 8.6 Individual hygiene measures:

Remove contaminated clothing. Use suitable work clothing. Wash hands and face before breaks and when the job is done. Do not eat, drink or smoke in the workplace. Avoid the formation of dust.

### 8.7 Environmental exposure controls:

Fulfill the commitments under local environmental protection legislation.

## Physical and chemical properties

Appearance: solid

Colour: White or greyish white or pinkish white

Granulometry:

Odour: Piquant.

pH: 2 (10 g/l sol.)

Melting point/freezing point: 315 °C

Initial boiling point and boiling range:
Flash point:
Flammability (solid, gas):
Upper/lower flammability or explosive limits:
Vapour pressure: 100 hPa (150 °C)
Vapour density:
Relative density: 3,95
Solubility: 384 g/l water 14 °C
Partition coefficient: n-octanol/water:
Auto-ignition temperature:
Decomposition temperature:
Viscosity:

## Stability and reactivity

### 10.1 Conditions which should be avoided:

### 10.2 Matter which should be avoided:

Oxidant agents. Reducing agents.

### 10.3 Hazardous decomposition products:

Acids.

### 10.4 Complementary information:

Hygroscopic.

## Toxicological information

- **Acute toxicity:**

LC L0 inh rbt : 5890 mg/m<sup>3</sup>

- **Dangerous effects for health:**

If inhaled: Irritations to the mucosae coughing breathing difficulties Can cause bronchopneumonia pulmonary oedema Selenium has toxic-enzymatic effects, even if absorbed in small doses. Produces a typical odour of garlic on the breath and sweat. Upon contact with the skin: irritations Risk of cutaneous absorption. Can cause dermatitis Through contact with the eyes: irritations If swallowed: nausea vomiting Chronic effects alterations of the metabolism hepatic problems kidney problems Toxic effect in the urinary and gastro-intestinal tract, spleen, marrow, heart, nerves (risk of paralysis). Other dangerous characteristics are not discarded. Take the usual precautions for handling chemical products.

# Environmental information

## 12.1 Mobility:

## 12.2 Ecotoxicity:

12.1.1 - EC50 test (mg/l):

12.2.2 - Receptor medium:

Risk for the water environment

Risk for the land environment

12.2.3 - Observations:

Ecotoxic data not available.

## 12.3 Degradability:

12.3.1 - Test:

12.3.2 - Biotic degradation classification:

BOD5/COD

Biodegradability

12.3.3 - Abiotic degradation depending on pH:

12.3.4 - Observations:

## 12.4 Accumulation:

12.4.1 - Test:

12.4.2 - Bioaccumulation:

Risk

12.4.3 - Observations:

## 12.5 Other possible effects on the environment:

Do not allow it to enter soils or water channels.

Water-pollutant product.

# Considerations regarding elimination

## 13.1 Substance or preparation:

In the European Union, there are no homogeneous standards established for elimination of chemical waste, which is waste of a special nature, and treatment and elimination of same is subject to the domestic legislation in each country.

In view of this, in each case, you should contact the competent authority or those companies legally authorized for elimination of waste.

2001/573/EC: Council Decision of 23 July 2001 amending Commission Decision 2000/532/EC as regards the list of wastes. Council Directive 91/156/EEC of 18 March 1991 amending Directive 75/442/EEC on waste.

### **13.2 Contaminated containers:**

Contaminated containers and packaging of dangerous substances or preparations must be treated in the same manner as the actual products contained in them.

European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste.

## **Information concerning transport**

Overland (ADR):

Technical name: SELENIUM COMPOUND, SOLID, N.O.S.

UN 3283 Class: 6.1 CONTAM. MAR PELIG.M.AMB Packaging group: II (D/E)

By sea (IMDG):

Technical name: SELENIUM COMPOUND, SOLID, N.O.S.

UN 3283 Class: 6.1 CONTAM. MAR PELIG.M.AMB Packaging group: II

By air (ICAI-IATA):

Technical name: Selenium compound, solid, n.o.s.

UN 3283 Class: 6.1 CONTAM. MAR PELIG.M.AMB Packaging group: II

Packaging instructions: CAO 615 PAX 613

## **Regulatory information**

## **Other information**

### **Other precautionary statements**

P273 Avoid release to the environment.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P311 Call a POISON CENTER or doctor/physician.

P314 Get medical advice/attention if you feel unwell.

P321 Specific treatment (see on this label).

P330 Rinse mouth.

P391 Collect spillage.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

**Labelling (65/548/CEE or 1999/45/CE)**

R-phrase(s):	<p><b>R50/53</b> Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</p> <p><b>R33</b> Danger of cumulative effects.</p> <p><b>R23/25</b> Toxic by inhalation and if swallowed.</p>
S-phrase(s):	<p><b>S60</b> This material and its container must be disposed of as hazardous waste.</p> <p><b>S45</b> In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).</p> <p><b>S28a</b> After contact with skin, wash immediately with plenty of water.</p> <p><b>S20/21</b> When using do not eat, drink or smoke.</p> <p><b>S61</b> Avoid release to the environment. Refer to special instructions/safety data sheets.</p>

Review number and date: 3 3.11.10

Date published: 3.11.10

In respect of the previous review, changes have been made to the following sections: 2, 3, 15

The information included in this Safety Data Sheet is based on our most up-to-date knowledge, and is solely intended to inform regarding aspects of safety; the properties and characteristics indicated herein are not guaranteed.