

Safety Data Sheet  
According to Regulation (EC) 1907/2006



**3191 Selenium \*standard solution Se=1,000+-0,002 g/l**

**1. Identification of the substance/preparation and of the company or firm**

**1.1 Identification of the substance or preparation**

Name:

Selenium \*standard solution Se=1,000+-0,002 g/l

**Synonym:**

**REACH Registration Number:** A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) N° 1907/2006, the annual tonnage does not require a registration, the registration is envisaged for a later registration deadline or it is a mixture.

**1.2 Use of the substance/preparation:**

For laboratory utilisation, analysis, research and fine chemistry.

**1.3 Identification of the company or firm:**

PANREAC QUIMICA S.L.U.

C/Garraf 2

Polígono Pla de la Bruguera

E-08211 Castellar del Vallès

(Barcelona) Spain

Tel. (+34) 937 489 400

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

**1.4 Emergency telephone:**

Single telephone number for emergency calls: 112 (EU)

Tel.: (+34) 937 489 499

**2. Identification of dangers**

Classification of the substance or the mixture.

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

Eye Irrit. 2

STOT SE 3

Skin Irrit. 2

**Hazard Pictograms**



**Signal word**

Warning

**Hazard statements**

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H315 Causes skin irritation.

**Precautionary statements**

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

P264 Wash...thoroughly after handling.

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

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

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

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

**Xi** Irritant

R36/37/38

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

**3. Component Composition/Information**

Name: Selenium \*standard solution Se=1,000+-0,002 g/l

**Composition:****0001: Nitric Acid 69%**

Formula: HNO<sub>3</sub> M.= 63,01 CAS [7697-37-2]

EC number (EINECS): 231-714-2

EC index number: 007-004-00-1

REACH Registration Number: 01-2119487297-23-XXXX

**Content:** >= 5 % <= 10 %

**Classification Regulation (CE) nº 1272/2008.**

Skin Corr. 1A

Ox. Sol. 3

**Hazard Pictograms****Signal word**

Danger

**Hazard statements**

H314 Causes severe skin burns and eye damage.

H272 May intensify fire; oxidiser.

**Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P220 Keep/Store away from clothing/combustible materials.

P221 Take any precaution to avoid mixing with combustibles.

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

P264 Wash...thoroughly after handling.

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

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor/physician.

P321 Specific treatment (see on this label).

P338 Remove contact lenses, if present and easy to do. Continue rinsing.

P363 Wash contaminated clothing before reuse.

P370+P378 In case of fire: Use for extinction.

P405 Store locked up.

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

**C** Corrosive

**R35** Causes severe burns.

**0002: Selenium(IV) Oxide**

Formula: SeO2 M.= 110,96 CAS [7446-08-4]

EC number (EINECS): 231-194-7

EC index number: 034-002-00-8

**Content:** >= 0,1 % <= 1 %

**Classification Regulation (CE) nº 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.

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.

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

**N** Dangerous for the environment

**T** Toxic

**R50/53** Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**R33** Danger of cumulative effects.

**R23/25** Toxic by inhalation and if swallowed.

## **4. 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.

### **4.3 Contact with the skin:**

Wash with plenty of water. Remove contaminated clothing. Take the product out with cotton wool soaked in polyethylene-glycol 400.

### **4.4 Eyes:**

Wash with plenty of water, keeping eyelids open. In the event of irritation, seek medical assistance.

**4.5 Swallowing:**

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

**5. Fire-fighting means****5.1 Suitable fire-extinguishing means:**

As appropriate to the environment.

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

No specific data.

**5.3 Special risks:**

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

**5.4 Protective equipment:**

Suitable clothing and footwear.

**6. Measures to be taken in the event of accidental spillage****6.1 Individual precautions:**

Avoid contact with the skin, eyes or clothing.

**6.2 Precautions for care of the environment:**

Avoid pollution of the soil, water supplies and drains.

**6.3 Methods for collection/cleaning:**

Collect up with absorbent materials (Panreac General Absorbent, Kieselguhr, etc.) or, if none available, dry sand or earth, and deposit in waste containers for subsequent elimination in accordance with current legislation. Clean any remains with plenty of water.

**7. Handling and storage****7.1 Handling:**

No special indications.

**7.2 Storage:**

Well sealed containers. Room temperature. Do not store in metal containers.

**8. Staff exposure/protection controls****8.1 Technical protective measures:**

No special indications.

**8.2 Exposure limit control:**

VLA-EC(HNO<sub>3</sub>): 4 ppm - 10 mg/m<sup>3</sup>

VLA-ED(HNO<sub>3</sub>): 2 ppm - 5,2 mg/m<sup>3</sup>

**8.3 Respiratory protection:**

In the event of fumes forming/aerosols, use suitable respiratory protection. Filter B. Filter P3. Filter NOX.

**8.4 Hand protection:**

Use suitable gloves

**8.5 Eye protection:**

Use suitable goggles.

**8.6 Individual hygiene measures:**

Use complete protective equipment. Remove contaminated clothing. Wash hands and face before breaks and when the job is done.

**8.7 Environmental exposure controls:**

Fulfill the commitments under local environmental protection legislation.

**9. Physical and chemical properties**

Appearance: liquid

Colour:

N/A

Granulometry: N/A

Odour: Odourless.

pH: 1

Melting point/freezing point: N/A

Initial boiling point and boiling range:

N/A

Flash point:

N/A

Flammability (solid, gas):

N/A

Upper/lower flammability or explosive limits:

N/A

Vapour pressure: N/A

Vapour density: N/A

Relative density: ~1,027

Solubility: Miscible with water

Partition coefficient: n-octanol/water:

N/A

Auto-ignition temperature:

N/A

Decomposition temperature: N/A

Viscosity: N/A

**10. Stability and reactivity****10.1 Conditions which should be avoided:**

High temperatures.

**10.2 Matter which should be avoided:**

Alkaline solutions. Metals.

**10.3 Hazardous decomposition products:**

Nitrous fumes.

**10.4 Complementary information:**

No specific data.

**11. Toxicological information****11.1 Acute toxicity:**

: Data not available.

## **11.2 Dangerous effects for health:**

The data we have are insufficient for correct toxicological assessment. Based on the physico-chemical properties, the likely dangerous characteristics are: If fumes inhaled: Irritations to the respiratory tracts. Can cause coughing breathing difficulties Upon contact with the skin: burns Through contact with the eyes: burns If swallowed: Irritations of the mucosae in the mouth, throat, oesophagus and intestinal tract. Irritations to the skin, eyes, mucosae and respiratory tracts. 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. Can cause dermatitis 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.

## **12. Environmental information**

### **12.1 Toxicity:**

12.1.1 - EC50 test (mg/l):

Fish (*C. auratus*) (Se) 2 mg/l/18D

Classification: Extr. toxic

Algae (*Sc. quadricauda*) (Se) 2,5 mg/l

Classification: Extr. toxic

Crustaceans (*Daphnia magna*) (Se) 2,5 mg/l

Classification: Extr. toxic

Protozoa: (Se) 183 mg/l

Classification: Extr. toxic

Cold-blooded animals (Se) 2 mg/l

Classification:

Extr. toxic

Fish (NO<sub>3</sub><sup>-</sup>) > 500 mg/l

Classification:

Extr. toxic

12.1.2. - Receptor medium:

Risk for the water environment

Medium

Risk for the land environment

Low

12.1.3. - Observations:

In the event of infiltration into underground water supplies, these may not be used for drinking water due to the high nitrate content. The ecotoxicity is due to the pH deviation and to the nitrates fl

Acute ecotoxicity in the dumping area.

### **12.2 Persistence and Degradability :**

12.2.1 - Test:

12.2.2. - Biotic degradation classification:

BOD5/COD

Biodegradability

12.2.3. - Abiotic degradation depending on pH:

12.2.4. - Observations:

Does not consume oxygene.

Non-biodegradable product.

### **12.3 Bioaccumulative potential:**

12.3.1. - Test:

12.3.2. - Bioaccumulation:

Risk

12.3.3. - Observations:

### **12.4 Mobility in soil :**

Data not available.

### **12.5 Assessment PBT and MPMB :**

Data not available.

### **12.6 Other possible effects on the environment:**

Neutralize with NaOH at pH 7.

Encourages eotrophy in rivers and water channels.

Ecotoxic effects due to the pH variation.

DATA BASED on the components of the preparation.

## **13. 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.

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### **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.

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## **14. Information concerning transport**

Overland (ADR):

Technical name: CORROSIVE LIQUID, N.O.S.

UN 1760 Class: 8 Packaging group: III (E)

By sea (IMDG):

Technical name: CORROSIVE LIQUID, N.O.S.

UN 1760 Class: 8 Packaging group: III

By air (ICAI-IATA):

Technical name: Corrosive liquid, n.o.s

UN 1760 Class: 8 Packaging group: III

Packaging instructions: CAO 856 PAX 852

## **15. Regulatory information**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.



## 16. Other information

### Other precautionary statements

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P312 Call a POISON CENTER or doctor/physician if you feel unwell.  
P321 Specific treatment (see on this label).  
P332+P313 If skin irritation occurs: Get medical advice/attention.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P362 Take off contaminated clothing and wash before reuse.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.  
P501 Dispose of contents/container according to Directive 94/62/CE or 2008/98/CE.

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

R-phrases(s):	<b>R36/37/38</b> Irritating to eyes, respiratory system and skin.
S-phrases(s):	<b>S36</b> Wear suitable protective clothing. <b>S26</b> In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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.