

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



2901 Osmium(VIII) Oxide

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

1.1 Identification of the substance or preparation

Name:

Osmium(VIII) Oxide

Synonym:

Osmic Acid, Osmium Tetroxide

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

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.

Acute Tox. 2

Acute Tox. 1

Acute Tox. 2

Skin Corr. 1B

Hazard Pictograms



Signal word

Danger

Hazard statements

H330 Fatal if inhaled.

H310 Fatal in contact with skin.

H300 Fatal if swallowed.

H314 Causes severe skin burns and eye damage.

Precautionary statements

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

P262 Do not get in eyes, on skin, or on clothing.

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).

T+ Very toxic

R34

R26/27/28

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

3. Component Composition/Information

Name: Osmium(VIII) Oxide

Formula: OsO₄ M.= 254,20 CAS [20816-12-0]

EC number (EINECS): 244-058-7

EC index number: 076-001-00-5

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. In the event of suffocation, proceed immediately to provide artificial respiration. Seek immediate medical assistance.

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 (for at least 15 minutes), keeping eyelids open. Seek immediate medical assistance.

4.5 Swallowing:

Induce vomiting. Seek immediate medical assistance. Stomach lavage. Administer a solution of medical-usage active charcoal.

5. Fire-fighting means

5.1 Suitable fire-extinguishing means:

Water. Foam. Dry powder.

5.2 Fire-fighting means which must NOT be used:

No specific data.

5.3 Special risks:

Encourages fire to break out. Keep away from combustible substances. 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. 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. Clean any remains with plenty of water. Carry out the operation with maximum precaution.

7. Handling and storage

7.1 Handling:

Handle under an extractor fan.

7.2 Storage:

Well sealed containers. In well ventilated premises. Restricted access, only authorized to technicians.

8. Staff exposure/protection controls

8.1 Technical protective measures:

No special indications.

8.2 Exposure limit control:

TLV-TWA: 0,0002 ppm - 0,0016 mg/m³

VLA-EC(Os): 0,0006 ppm - 0,006 mg/m³

VLA-ED(Os): 0,002 mg/m³

8.3 Respiratory protection:

Use suitable breathing equipment. Filter A. Filter P.

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. Do not inhale the substance.

8.7 Environmental exposure controls:

Fulfill the commitments under local environmental protection legislation.

9. Physical and chemical properties

Appearance: solid

Colour: slightly yellow

Granulometry: N/A

Odour: Characteristic.

pH: 6 ((25 g/l))

Melting point/freezing point: 40,6 °C

Initial boiling point and boiling range: 130 °C

Flash point:

N/A

Flammability (solid, gas):

N/A

Upper/lower flammability or explosive limits:

N/A

Vapour pressure: 10 hPa (20 °C)

Vapour density: N/A

Relative density:

N/A

Solubility: 72,4 g/l in water 25 °C

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:

Unsaturated hydrocarbons. Aluminium. Metals. Flammable substances. Reducing agents.

10.3 Hazardous decomposition products:

Toxic gases.

10.4 Complementary information:

Heat sensitive.

11. Toxicological information

11.1 Acute toxicity:

LD50 oral mus : 162 mg/kg

LD50 oral rat : 15 mg/kg

TC L0 inh man : 0,133 mg/m³

LC L0 inh rat : 40 ppm 4h

LD50 ipr mus : 13,5 mg/kg

11.2 Dangerous effects for health:

Toxic if swallowed, inhaled or absorbed through the skin. It is imperative to take countermeasures straight away. If fumes inhaled: Irritations to the mucosae coughing breathing difficulties Can cause oedemas in the respiratory tract Upon contact with the skin: irritations burns Through contact with the eyes: irritations burns If swallowed: irritations burns diarrhoea gastro-intestinal disorders kidney problems Other dangerous characteristics are not discarded.

12. Environmental information

12.1 Toxicity:

12.1.1 - EC50 test (mg/l):

12.1.2. - Receptor medium:

Risk for the water environment

Risk for the land environment

12.1.3. - Observations:

Ecotoxic data not available.

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:

12.3 Bioaccumulative potential:

12.3.1. - Test:

12.3.2. - Bioaccumulation:

Risk

12.3.3. - Observations:

Data not available.

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:

Do not allow it to enter soils or water channels.

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: OSMIUM TETROXIDE

UN 2471 Class: 6.1 CONTAM. MAR Packaging group: I (C/E)

By sea (IMDG):

Technical name: OSMIUM TETROXIDE

UN 2471 Class: 6.1 CONTAM. MAR Packaging group: I

By air (ICAI-IATA):

Technical name: Osmium tetroxide

UN 2471 Class: 6.1 CONTAM. MAR Packaging group: I

Packaging instructions: CAO 673 PAX 666

15. Regulatory information

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

16. Other information

Other precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P284 Wear respiratory protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302+P350 IF ON SKIN: Gently wash with plenty of soap and water.
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.
P320 Specific treatment is urgent (see on this label).
P321 Specific treatment (see on this label).
P322 Specific measures (see on this label).
P330 Rinse mouth.
P338 Remove contact lenses, if present and easy to do. Continue rinsing.
P361 Remove/Take off immediately all contaminated clothing.
P363 Wash contaminated clothing before reuse.
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-phrases(s):	R34 Causes burns. R26/27/28 Very toxic by inhalation, in contact with skin and if swallowed.
S-phrases(s):	S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S7/9 Keep container tightly closed and in a well-ventilated place.

Review number and date: 4 15.09.2011

Date published: 15.09.2011

In respect of the previous review, changes have been made to the following sections: 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.