

Safety Data Sheet

According to Regulation (EC) 1907/2006



A244 Titanium(IV) Isopropylate

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

### 1.1 Identification of the substance or preparation

Name:

Titanium(IV) Isopropylate

### 1.2 Synonym:

Tetraisopropyl Orthotitanate, Titanic Acid Tetraisopropyl Ester, Titanium Tetraisopropylate, Titanium(IV) Isopropoxide

### 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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# Identification of dangers

Classification of the substance or the mixture.

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

Flam. Liq. 3

Acute Tox. 4

Eye Irrit. 2

**Hazard Pictograms**



**Signal word**

Warning

**Hazard statements**

H226 Flammable liquid and vapour.

H332 Harmful if inhaled.

H319 Causes serious eye irritation.

**Precautionary statements**

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

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting/.../ equipment.

P242 Use only non-sparking tools.

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

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

R36

Xn Harmful R20

R10

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

# Component Composition/Information

Name: Titanium(IV) Isopropylate

Formula: C<sub>12</sub>H<sub>28</sub>O<sub>4</sub>Ti M.= 284,25 CAS [546-68-9]

EC number (EINECS): 208-909-6

## 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 to provide artificial respiration.

### 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 medical assistance.

### 4.5 Swallowing:

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

## Fire-fighting means

### 5.1 Suitable fire-extinguishing means:

Water. Carbon dioxide (CO<sub>2</sub>). Foam. Dry powder.

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

### 5.3 Special risks:

Flammable. Keep away from sources of ignition. The fumes are heavier than air, so they may spread at floor level. May form explosive mixtures with the air.

### 5.4 Protective equipment:

Suitable clothing and footwear. Self-contained breathing equipment.

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

### 6.1 Individual precautions:

Do not inhale the fumes.

### 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.

## Handling and storage

### 7.1 Handling:

Handle with caution. Moisture-sensitive.

### 7.2 Storage:

Well sealed containers. Atmospheric temperature. Keep away from flammable substances, sources of ignition and heat. In well ventilated premises.

## Staff exposure/protection controls

### 8.1 Technical protective measures:

### 8.2 Exposure limit control:

### 8.3 Respiratory protection:

In the event of fumes forming/aerosols, 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. Wash hands and face before breaks and when the job is done. Use suitable work clothing.

### 8.7 Environmental exposure controls:

Fulfill the commitments under local environmental protection legislation.

## Physical and chemical properties

Appearance: liquid

Colour: Yellow

Granulometry:

Odour: Characteristic.

pH:

Melting point/freezing point: 18 - 20 °C

Initial boiling point and boiling range:

Flash point: 51 °C

Flammability (solid, gas):

Upper/lower flammability or explosive limits:

Vapour pressure:

Vapour density:

Relative density: (20/4) 0,965

Solubility:

Partition coefficient: n-octanol/water:

Auto-ignition temperature:

Decomposition temperature:

Viscosity:

## Stability and reactivity

### 10.1 Conditions which should be avoided:

High temperatures.

### 10.2 Matter which should be avoided:

Water.

### 10.3 Hazardous decomposition products:

### 10.4 Complementary information:

Hygroscopic. Light-sensitive.

## Toxicological information

- **Acute toxicity:**

LD50 oral rat : 7.300 mg/kg

LD50 skn rbt : > 15.200 mg/kg

- **Dangerous effects for health:**

If fumes inhaled: Irritations to the mucosae coughing breathing difficulties Upon contact with the skin: irritations Through contact with the eyes: irritations Other dangerous characteristics are not discarded. Take the usual precautions for handling chemical products.

## Environmental information

### 12.1 Mobility:

**12.2 Ecotoxicity:**

12.2.1 - 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:

Data not available.

**12.4 Accumulation:**

12.4.1 - Test:

12.4.2 - Bioaccumulation:

Risk

12.4.3 - Observations:

Data not available.

**12.5 Other possible effects on the environment:**

Do not allow it to enter soils or water channels.

## 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: FLAMMABLE LIQUID, N.O.S.

UN 1993 Class: 3 Packaging group: III (D/E)

By sea (IMDG):

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

UN 1993 Class: 3 Packaging group: III

By air (ICAI-IATA):

Technical name: 3/III

UN 1993 Class: 3 Packaging group: III

Packaging instructions: CAO 310 PAX 309

## **Regulatory information**

## **Other information**

**Other precautionary statements**

P243 Take precautionary measures against static discharge.

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.

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.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P337+P313 If eye irritation persists: Get medical advice/attention.

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

P403+P235 Store in a well-ventilated place. Keep cool.

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

R-phrases(s):	<b>R36</b> Irritating to eyes. <b>R20</b> Harmful by inhalation. <b>R10</b> Flammable.
S-phrases(s):	<b>S26</b> In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. <b>S24</b> Avoid contact with skin.

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.

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

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