



## 5928 Ruthenium \*standard solution Ru=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:

Ruthenium \*standard solution Ru=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.

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

**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: Ruthenium \*standard solution Ru=1,000+-0,002 g/l

**Composition:****0001: Hydrochloric Acid 37%**

Formula: HCl M.= 36,46 CAS [7647-01-0]

EC number (EINECS): 231-595-7

EC index number: 017-002-01-X

REACH Registration Number: 01-2119484862-27-XXXX

**Content:** 20 %**Classification Regulation (CE) n° 1272/2008.**

Skin Corr. 1B

STOT SE 3

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

Danger

### **Hazard statements**

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

### **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.

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

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.

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

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.

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.

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

**C** Corrosive

**R34** Causes burns.

**R37** Irritating to respiratory system.

## **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 to provide artificial respiration. In the event sickness persists, seek medical assistance.

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

Wash with plenty of soap and water. Remove contaminated clothing. In the event of irritation, seek medical assistance.

### **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. Induce vomiting. Seek medical assistance.

## **5. 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:**

No specific data.

**5.3 Special risks:**

Incombustible. In the event of fire, toxic fumes may form: Do not allow extinguishing water into surface or underground water courses.

**5.4 Protective equipment:**

Suitable clothing and footwear. Self-contained breathing equipment.

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

Avoid contact with the skin, eyes or clothing. Ensure adequate ventilation. Do not inhale the fumes.

**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 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. Neutralize with solution of sodium carbonate.

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

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

**7.2 Storage:**

Well sealed containers. In a cool, dry, well ventilated place. Room temperature. Do not store in metal containers.

**8. 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-EC(HCl): 10 ppm - 15 mg/m<sup>3</sup>

VLA-ED(HCl): 5 ppm - 7,6 mg/m<sup>3</sup>

**8.3 Respiratory protection:**

In the event of fumes forming/aerosols, use suitable respiratory protection. Filter E. Filter P.

**8.4 Hand protection:**

Use suitable gloves neopren nitrile latex

### **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. 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: liquid

Colour: Brown

Granulometry: N/A

Odour: Odourless.

pH:

N/A

Melting point/freezing point: -25 °C

Initial boiling point and boiling range: 107 °C

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: (20/4) 1,02

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:**

The product is chemically stable under standard ambient conditions (room temperature).

### **10.2 Matter which should be avoided:**

Metals and metal alloys.

### **10.3 Hazardous decomposition products:**

Hydrogen chloride.

### **10.4 Complementary information:**

No specific data.

## **11. Toxicological information**

### **11.1 Acute toxicity:**

: Data not available.

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

Taking the preparation' components into account, the likely dangerous characteristics are as follows: If inhaled: Irritations to the mucosae coughing breathing difficulties Upon contact with the skin: irritations slight Through contact with the eyes: irritations slight If swallowed: Irritations of the mucosae in the mouth, throat, oesophagus and intestinal tract. 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 25 mg/l (HCl)

Fish (Leuciscus Idus) LC50 (HCl) 862 mg/l

Plants (HCl) 6 mg/l

12.1.2. - Receptor medium:

Risk for the water environment

Risk for the land environment

12.1.3. - Observations:

Ecotoxic in water environment.

The ecotoxicity is due to the pH deviation.

### **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 oxygen biologically.

### **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.

Do not allow it to enter the sewage system.

Product hardly pollutant for water.

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.

.

### **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.

.

## **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**

The substance is subject to Regulation (EC) No 273/2004 of the European Parliament and of the Council, of 11 February 2004 on drug precursors, Council Regulation (EC) No 111/2005 of 22 December 2004 laying down rules for the monitoring of trade between the Community and third countries in drug precursors, Commission Regulation (EC) No 1277/2005 of 27 July 2005 laying down implementing rules for Regulation (EC) No 273/2004 of the European Parliament and of the Council on drug precursors and for Council Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors.

## **16. Other information**

### **Other precautionary statements**

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.  
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.

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

R-phrase(s):       **R36/37/38** Irritating to eyes, respiratory system and skin.

S-phrase(s):       **S36** Wear suitable protective clothing.  
                          **S26** In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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

Date published: 3.11.10

Review number and date: 3 3.11.10