



## 1574 Karl Fischer's Reagent Composite

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

#### 1.1 Identification of the substance or preparation

Name:

Karl Fischer's Reagent Composite

#### 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.

Repr. 1B

Flam. Liq. 2

Acute Tox. 4

Acute Tox. 4

Acute Tox. 4

Aquatic Chronic 2

## Hazard Pictograms



### Signal word

Danger

### Hazard statements

H360FD May damage fertility. May damage the unborn child.

H225 Highly flammable liquid and vapour.

H332 Harmful if inhaled.

H312 Harmful in contact with skin.

H302 Harmful if swallowed.

H411 Toxic to aquatic life with long lasting effects.

### Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

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.

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

N	Dangerous for the environment	RE20/21/22
T	Toxic	R10
		R61
		R60
		R51

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

## 3. Component Composition/Information

Name: Karl Fischer's Reagent Composite

### Composition:

#### 0001: Ethylene Glycol mono-Methyl Ether

Formula: HOCH<sub>2</sub>CH<sub>2</sub>OCH<sub>3</sub> M.= 76,10 CAS [109-86-4]

EC number (EINECS): 203-713-7

EC index number: 603-011-00-4

REACH Registration Number: 01-2119494721-33-XXXX

**Content:** >= 50 %

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

Repr. 1B  
Flam. Liq. 3  
Acute Tox. 4  
Acute Tox. 4  
Acute Tox. 4

### Hazard Pictograms



### Signal word

Danger

### Hazard statements

H360D May damage the unborn child.  
H226 Flammable liquid and vapour.  
H332 Harmful if inhaled.  
H312 Harmful in contact with skin.  
H302 Harmful if swallowed.

### Precautionary statements

P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
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.  
P243 Take precautionary measures against static discharge.  
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.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P281 Use personal protective equipment as required.  
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
P302+P352 IF ON SKIN: 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.  
P308+P313 IF exposed or concerned: Get medical advice/attention.  
P312 Call a POISON CENTER or doctor/physician if you feel unwell.  
P322 Specific measures (see on this label).  
P330 Rinse mouth.  
P363 Wash contaminated clothing before reuse.  
P370+P378 In case of fire: Use for extinction.  
P403+P235 Store in a well-ventilated place. Keep cool.  
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).**

**T** Toxic

**RE20/21/22** Also harmful by inhalation, in contact with skin and if swallowed.

**R10** Flammable.

**R61** May cause harm to the unborn child.

**R60** May impair fertility.

**0002: Pyridine**

Formula: C<sub>5</sub>H<sub>5</sub>N M.= 79,10 CAS [110-86-1]

EC number (EINECS): 203-809-9

EC index number: 613-002-00-7

REACH Registration Number: 01-2119493105-40-XXXX

**Content:** >= 10 % <= 25 %

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

Flam. Liq. 2

Acute Tox. 4

Acute Tox. 4

Acute Tox. 4

**Hazard Pictograms**



**Signal word**

Danger

**Hazard statements**

H225 Highly flammable liquid and vapour.

H332 Harmful if inhaled.

H312 Harmful in contact with skin.

H302 Harmful if swallowed.

### 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.  
P243 Take precautionary measures against static discharge.  
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.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
P302+P352 IF ON SKIN: 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.  
P312 Call a POISON CENTER or doctor/physician if you feel unwell.  
P322 Specific measures (see on this label).  
P330 Rinse mouth.  
P363 Wash contaminated clothing before reuse.  
P370+P378 In case of fire: Use for extinction.  
P403+P235 Store in a well-ventilated place. Keep cool.

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

<b>Xn</b> Harmful	<b>R20/21/22</b> Harmful by inhalation, in contact with skin and if swallowed.
<b>F</b> Highly flammable	<b>R11</b> Highly flammable.

### 0003: Iodine \*crude

Formula: I<sub>2</sub> M.= 253,81 CAS [7553-56-2]  
EC number (EINECS): 231-442-4  
EC index number: 053-001-00-3  
REACH Registration Number: 01-2119485285-30-XXXX

**Content:** >= 10 % <= 25 %

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

Acute Tox. 4  
Acute Tox. 4  
Aquatic Acute 1

### Hazard Pictograms



**Signal word**

Warning

**Hazard statements**

H332 Harmful if inhaled.  
H312 Harmful in contact with skin.  
H400 Very toxic to aquatic life.

**Precautionary statements**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P271 Use only outdoors or in a well-ventilated area.  
P273 Avoid release to the environment.  
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.  
P501 Dispose of contents/container according to Directive 94/62/CE or 2008/98/CE.  
P312 Call a POISON CENTER or doctor/physician if you feel unwell.  
P322 Specific measures (see on this label).  
P363 Wash contaminated clothing before reuse.  
P391 Collect spillage.

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

**N** Dangerous for the environment  
**Xn** Harmful

**R50** Very toxic to aquatic organisms.  
**R20/21** Harmful by inhalation and in contact with skin.

**0004: Sulphurous Anhydride**

Formula: O<sub>2</sub>S    M.= 64,06    CAS [7446-09-5]  
EC number (EINECS): 231-195-2  
EC index number: 016-011-00-9

**Content:** >= 3 % <= 25 %

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

Acute Tox. 3  
Skin Corr. 1B

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

Danger

**Hazard statements**

H331 Toxic if inhaled.  
H314 Causes severe skin burns and eye damage.

### **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.  
P501 Dispose of contents/container according to Directive 94/62/CE or 2008/98/CE.  
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.  
P311 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.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.

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

T Toxic

R34 Causes burns.

R23 Toxic by inhalation.

## **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.

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

Wash with plenty of water. Remove contaminated clothing.

### **4.4 Eyes:**

Wash with plenty of water, keeping eyelids open. Seek medical assistance.

### **4.5 Swallowing:**

Drink large amounts of water. Induce vomiting. Seek immediate 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:**

Combustible. Keep away from sources of ignition. May form explosive mixtures with the air.

### **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 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.

## **7. Handling and storage**

### **7.1 Handling:**

Avoid the formation of electrostatic charges.

### **7.2 Storage:**

Well sealed containers. In well ventilated premises. Away from sources of ignition and heat. Restricted access, only authorized to technicians.

## **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-ED(ethylene glycol monomethyl ether): 16 mg/m<sup>3</sup> dermal resorption

### **8.3 Respiratory protection:**

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

### **8.4 Hand protection:**

Use suitable gloves neopren nitrile

### **8.5 Eye protection:**

Use suitable goggles.

### **8.6 Individual hygiene measures:**

Remove contaminated clothing. Use complete protective equipment. 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: Piquant.

pH: 4 - 5

Melting point/freezing point: N/A

Initial boiling point and boiling range:

N/A

Flash point: 35 °C

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) 1,13

Solubility: in 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:

No specific data.

### 10.3 Hazardous decomposition products:

No specific data.

### 10.4 Complementary information:

No specific data.

## 11. Toxicological information

### 11.1 Acute toxicity:

: Data not available.

### 11.2 Dangerous effects for health:

No specific data on this preparation known with regard to effects of overdose in humans. Taking the preparation' components into account, the likely dangerous characteristics are as follows: If fumes inhaled: Irritations to the respiratory tracts. Can cause coughing breathing difficulties Can cause oedemas in the respiratory tract Upon contact with the skin: irritations Risk of cutaneous absorption. Through contact with the eyes: irritations If swallowed: nausea vomiting If it is absorbed in large quantities: narcosis kidney problems hepatic problems cardiovascular disorders

## **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:

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

12.2.1 - Test:

BOD5

12.2.2. - Biotic degradation classification:

BOD5/COD

Biodegradability

12.2.3. - Abiotic degradation depending on pH:

### **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:**

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: TOXIC LIQUID, FLAMMABLE, ORGANIC, N.O.S.

UN 2929 Class: 6.1 3 CONTAM. MAR Packaging group: II (D/E)

By sea (IMDG):

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

UN 2929 Class: 6.1 3 CONTAM. MAR Packaging group: II

By air (ICAI-IATA):

Technical name: Toxic liquid, flammable, organic, n.o.s.

UN 2929 Class: 6.1 3 CONTAM. MAR Packaging group: II

Packaging instructions: CAO 662 PAX 654

## **15. Regulatory information**

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

## **16. Other information**

### **Other precautionary statements**

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

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.

P273 Avoid release to the environment.

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

P281 Use personal protective equipment as required.

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P302+P352 IF ON SKIN: 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.

P308+P313 IF exposed or concerned: Get medical advice/attention.

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

P322 Specific measures (see on this label).

P330 Rinse mouth.

P363 Wash contaminated clothing before reuse.

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

P391 Collect spillage.

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

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-phrase(s): **RE20/21/22** Also harmful by inhalation, in contact with skin and if swallowed.  
**R10** Flammable.  
**R61** May cause harm to the unborn child.  
**R60** May impair fertility.  
**R51** Toxic to aquatic organisms.

S-phrase(s): **S61** Avoid release to the environment. Refer to special instructions/safety data sheets.  
**S45** In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
**S36/37** Wear suitable protective clothing and gloves.  
**S53** Avoid exposure - obtain special instructions before use.

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.