



1147 Acetic Anhydride

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

1.1 Identification of the substance or preparation

Name:
Acetic Anhydride

Synonym:

REACH Registration Number: 01-2119486470-36-XXXX

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) nº 1272/2008.

Flam. Liq. 3
Acute Tox. 4
Acute Tox. 4
Skin Corr. 1B

Hazard Pictograms



Signal word

Danger

Hazard statements

H226 Flammable liquid and vapour.
H332 Harmful if inhaled.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.

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.
P243 Take precautionary measures against static discharge.

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

C Corrosive

R34
R20/22
R10

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

3. Component Composition/Information

Name: Acetic Anhydride

Formula: (CH₃CO)₂O M.= 102,09 CAS [108-24-7]

EC number (EINECS): 203-564-8

EC index number: 607-008-00-9

REACH Registration Number: 01-2119486470-36-XXXX

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 sickness persists, seek medical assistance.

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 immediate medical assistance.

4.5 Swallowing:

Drink large amounts of water. Avoid vomiting (there is a risk of perforation). Seek immediate medical assistance. Do not neutralize.

5. Fire-fighting means

5.1 Suitable fire-extinguishing means:

Dry powder.

5.2 Fire-fighting means which must NOT be used:

Water. Foam.

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. In the event of fire, toxic fumes may form. Risk of inflammation due to accumulation of electrostatic charges.

5.4 Protective equipment:

Suitable clothing and footwear.

6. 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. Neutralize with diluted sodium hydroxide.

7. Handling and storage

7.1 Handling:

No special indications.

7.2 Storage:

Well sealed containers. Dry atmosphere. In well ventilated premises. Away from sources of ignition and heat. Room temperature.

8. Staff exposure/protection controls

8.1 Technical protective measures:

No special indications.

8.2 Exposure limit control:

VLA-ED: 5 ppm - 21 mg/m³

8.3 Respiratory protection:

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

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.

8.7 Environmental exposure controls:

Fulfill the commitments under local environmental protection legislation.

9. Physical and chemical properties

Appearance: liquid

Colour: Colourless

Granulometry: N/A

Odour: Piquant.

pH: 3 ((10 g/l sol.))

Melting point/freezing point: -73 °C

Initial boiling point and boiling range: 136 - 142 °C

Flash point: 54 °C

Flammability (solid, gas):

N/A

Upper/lower flammability or explosive limits: 10,2 %(V) / 2 %(V)

Vapour pressure: 5 hPa (20 °C)

Vapour density: N/A

Relative density: (20/4) 1,082

Solubility: in Reacts violently with water and ethanol. Miscible with ether, chloroform or benzene

Partition coefficient: n-octanol/water:

N/A

Auto-ignition temperature: 389 °C

Decomposition temperature: N/A

Viscosity: N/A

10. Stability and reactivity

10.1 Conditions which should be avoided:

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

10.2 Matter which should be avoided:

Acids. Water. Alcohols. Ammonia. Oxidant agents (amongst others: perchloric acid, perchlorates, halogenates, CrO₃, halogen oxides, nitric acid, nitrogen oxides, non-metal oxides, chromo-sulphuric acid). Alkaline hydroxides.

10.3 Hazardous decomposition products:

No specific data.

10.4 Complementary information:

The gases/fumes can form explosive mixtures with the air.

11. Toxicological information

11.1 Acute toxicity:

LD50 oral rat : 1.780 mg/kg

LD50 skn rbt : 4.000 mg/kg

LC50 inh rat : 1000 ppm 4h

11.2 Dangerous effects for health:

If fumes inhaled: Irritations to the respiratory tracts. Very corrosive substance. Can cause bronchopneumonia oedemas in the respiratory tract Upon contact with the skin: burns Through contact with the eyes: burns sight disorders blindness (irreversible injury of the optic nerve) Burns in the mucosae. If swallowed: Burns in the oesophagus and stomach. spasms vomiting breathing difficulties Risk of perforation in the oesophagus and stomach. Risk of aspiration upon vomiting. The following cannot be ruled out: shock cardiovascular failure acidosis kidney problems alterations of the circulation

12. Environmental information

12.1 Toxicity:

12.1.1 - EC50 test (mg/l):

Fish (*Leuciscus Idus*) 410 mg/l

Classification:

Highly toxic

Fish (*L. Macrochirus*) 75 mg/l

Classification:

Extr. toxic

Crustaceans (*Daphnia magna*) 47 mg/l

Classification:

Extr. toxic

Bacteria (*Photobacterium phosphoreum*) 11 mg/l

Classification:

Extr. toxic

12.1.2. - Receptor medium:

Risk for the water environment

High

Risk for the land environment

Medium

12.1.3. - Observations:

Highly toxic in water environments. Affects fish, micro-crustaceans and bacteria due to pH deviation.

Acute ecotoxicity in line with the dumping concentration.

12.2 Persistence and Degradability :

12.2.1 - Test:

12.2.2. - Biotic degradation classification:

BOD5 0,88 g/g

BOD5/COD

Biodegradability

12.2.3. - Abiotic degradation depending on pH:

12.2.4. - Observations:

Biodegradable product.

12.3 Bioaccumulative potential:

12.3.1. - Test:

12.3.2. - Bioaccumulation:

Risk

12.3.3. - Observations:

Non-bioaccumulable product.

12.4 Mobility in soil :

Repartition: log P(oct)= -0,31

12.5 Assessment PBT and MPMB :

Data not available.

12.6 Other possible effects on the environment:

Ecotoxic effects due to the pH variation.

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: ACETIC ANHYDRIDE

UN 1715 Class: 8 3 Packaging group: II (D/E)

By sea (IMDG):

Technical name: ACETIC ANHYDRIDE

UN 1715 Class: 8 3 Packaging group: II

By air (ICAI-IATA):

Technical name: Acetic anhydride

UN 1715 Class: 8 3 Packaging group: II

Packaging instructions: CAO 855 PAX 851

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

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.
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.
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).
P330 Rinse mouth.
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.
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): **R34** Causes burns.
 R20/22 Harmful by inhalation and if swallowed.
 R10 Flammable.

S-phrase(s): **S45** In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
 S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
 S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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.