



Safety Data Sheet

According to Regulation (EC) 1907/2006



3080 1-Methyl-2-Pyrrolidone

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

1.1 Identification of the substance or preparation

Name:

1-Methyl-2-Pyrrolidone

1.2 Synonym:

N-Methylpyrrolidone, NMP

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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(Barcelona) Spain

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Emergencies:

Single telephone number for emergency calls: 112 (EU)

Tel.: (+34) 937 489 499

Identification of dangers

Classification of the substance or the mixture.

Classification Regulation (CE) n° 1272/2008.

Repr. 1B

Eye Irrit. 2

STOT SE 3

Skin Irrit. 2

Hazard Pictograms



Signal word

Danger

Hazard statements

H360D May damage the unborn child.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H315 Causes skin irritation.

Precautionary statements

P201 Obtain special instructions before use.

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

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.

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

T Toxic
R36/37/38
R61

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

Component Composition/Information

Name: 1-Methyl-2-Pyrrolidone

Formula: C₅H₉NO M.= 99,13 CAS [872-50-4]

EC number (EINECS): 212-828-1

EC index number: 606-021-00-7

First aid

4.1 General indications:

Never provide drink or induce vomiting in the event of loss of consciousness.

4.2 Inhaling:

Go out into the fresh air. Loosen clothing to release respiratory channels.

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. In the event of irritation, seek medical assistance.

4.5 Swallowing:

Drink large amounts of water. Induce vomiting. In the event of sickness, seek medical assistance.

Fire-fighting means

5.1 Suitable fire-extinguishing means:

Water. Carbon dioxide (CO₂). Foam. Dry powder.

5.2 Fire-fighting means which must NOT be used:

5.3 Special risks:

Combustible. May form explosive mixtures with the air. In the event of fire, toxic fumes may form: NO_x. Precipitate fumes formed with water. Do not allow extinguishing water into surface or underground water courses.

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:

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.

Handling and storage

7.1 Handling:

No special indications.

7.2 Storage:

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

Staff exposure/protection controls

8.1 Technical protective measures:

8.2 Exposure limit control:

VLA-EC: 75 ppm ó 309 mg/m³

VLA-ED: 25 ppm ó 103 mg/m³

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. 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.

Physical and chemical properties

Appearance: liquid

Colour: Colourless

Granulometry:

Odour: Characteristic.

pH: 8,5 - 10,0

Melting point/freezing point: -23 °C

Initial boiling point and boiling range: 202 °C

Flash point: 95 °C

Flammability (solid, gas):

Upper/lower flammability or explosive limits: 9,5 %(V) / 1,3 %(V)

Vapour pressure: 40 hPa (100 °C)

Vapour density:

Relative density: (20/4) 1,033

Solubility: Miscible with water

Partition coefficient: n-octanol/water:

Auto-ignition temperature: 269 °C

Decomposition temperature:

Viscosity:

Stability and reactivity

10.1 Conditions which should be avoided:

10.2 Matter which should be avoided:

Strong oxidant agents.

10.3 Hazardous decomposition products:

10.4 Complementary information:

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

Toxicological information

- **Acute toxicity:**

LD50 oral rat : 3.914 mg/kg

LD50 skn rbt : 8.000 mg/kg

LC50 inh rat : 5,1 mg/l 4h

LD50 ipr mus : 3.050 mg/kg

- **Dangerous effects for health:**

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

Environmental information

12.1 Mobility:

12.2 Ecotoxicity:

12.1.1 - EC50 test (mg/l):

Bacteria 9000 mg/l

Classification:

Hardly toxic.

Algae 500 mg/l

Classification:

Toxic

Crustaceans (Daphnia magna) 1000 mg/l

Classification:

Toxic

Fish (Leuciscus Idus) 4000 mg/l

Classification:

Toxic

12.2.2 - Receptor medium:

Risk for the water environment

Low

Risk for the land environment

Low

12.2.3 - Observations:

12.3 Degradability:

12.3.1 - Test:

BOD5 = 1,1 g/g

DOC 1,6 g/g

12.3.2 - Biotic degradation classification:

BOD5/COD

Biodegradability

High, over 1/3

12.3.3 - Abiotic degradation depending on pH:

12.3.4 - Observations:

Easily biodegradable product.

12.4 Accumulation:

12.4.1 - Test:

12.4.2 - Bioaccumulation:

Risk

12.4.3 - Observations:

Non-bioaccumulable product.

12.5 Other possible effects on the environment:

No interferences are to be anticipated in treatment plants if use correctly.

Product hardly pollutant for water.

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):

By sea (IMDG):

By air (ICAI-IATA):

Regulatory information

Other information

Other precautionary statements

P281 Use personal protective equipment as required.

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.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

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.

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

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

R-phrases(s):	R36/37/38 Irritating to eyes, respiratory system and skin. R61 May cause harm to the unborn child.
S-phrases(s):	S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S53 Avoid exposure - obtain special instructions before use.

Review number and date: 3 3.11.10

Date published: 3.11.10

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