



Safety Data Sheet

According to Regulation (EU) 830/2015

1881 Acetonitrile

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Name:

Acetonitrile

Synonym:

Cyanomethane, Ethanenitrile, Methyl Cyanide

REACH Registration Number: 01-2119471307-38-0028

1.2 Relevant identified uses of the substance or mixture:

Exposure Scenarios	Main user groups principaux	Sectors of use (SU)	Chemical Product Category (PC)	Process Categories (PROC)	Substances in articles (AC)	Environmental Release Categories (ERC)
Industrial Manufacturing and End Use	Industrial.	SU 3	PC 19	PROC 1		ERC 1
		SU 8	PC 20	PROC 2		ERC 2
		SU 9	PC 35	PROC 3		ERC 4
			PC 40	PROC 4		ERC 6a
				PROC 8a		ERC 6b
				PROC 8b		ERC 7
				PROC 9		
Active Ingredient Manufacturing and Pharmaceutical Use	Industrial.	SU 9	PC 19	PROC 1		ERC 1
			PC 21	PROC 2		ERC 4
			PC 29	PROC 3		ERC 6a
				PROC 4		
				PROC 8a		
				PROC 8b		
				PROC 15		
Use as laboratory chemicals.	Professional	SU 2a	PC 21	PROC 3		ERC 4
			PC 40	PROC 15		ERC 6a
Repackaging/dilution (Azeotrope Creation) Use	Industrial.	SU 10	PC 21	PROC 3		ERC 7
			PC 40	PROC 5		ERC 2
				PROC 9		

Used advised against:

Consumer use

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)

2. Identification of dangers

2.1 Classification of the substance or the mixture.

Flam. Liq. 2

Acute Toxicity Oral cat. 4

Acute Toxicity Inhalation cat. 4

Acute Toxicity Dermal cat. 4

Eye Irrit. 2

2.2 Label elements:

Hazard Pictograms



Signal word

Hazard statements

H225 Highly flammable liquid and vapour.

H332 Harmful if inhaled.

H312 Harmful in contact with skin.

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. 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.

2.3 Other hazards:

No further relevant information available.

3. Composition/information on ingredients

3.1 Substances

Name: Acetonitrile

Formula: CH₃CN M.= 41,05 CAS [75-05-8]

EC number (EINECS): 200-835-2

EC index number: 608-001-00-3

REACH Registration Number: 01-2119471307-38-0028

3.2 Mixtures

4. First aid measures

4.1 Description of first aid measures

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

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

Swallowing:

Drink large amounts of water. Call for medical help.

· Information for doctor:

· **Most important symptoms and effects, both acute and delayed:** No further relevant information available.

· Indication of any immediate medical attention and special treatment needed:

No further relevant information available.

Inhaling:

Take the person out into the fresh air. In the event of suffocation, proceed immediately to provide artificial respiration. Seek immediate medical assistance.

Contact with the skin:

Wash with plenty of water. Remove contaminated clothing.

Eyes:

Wash with plenty of water (for at least 15 minutes), keeping eyelids open. Seek medical assistance.

5. Firefighting measures

5.1 Extinguishing media:

Water. Carbon dioxide (CO₂). Alcohol resistant foam. Dry powder.

5.2 Special hazards arising from the substance or mixture:

Combustible. Keep away from sources of ignition. The fumes are heavier than air, so they may spread at floor level. Auf Rückzündung achten In the event of fire, toxic fumes may form. Precipitate fumes formed with water.

5.3 Advice for firefighters:

Suitable clothing and footwear. Self-contained breathing equipment. Cool the recipients with water.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

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

6.2 Environmental precautions:

Avoid pollution of the soil, water supplies and drains.

6.3 Methods and material for containment and cleaning up:

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.

6.4 Reference to other sections

Not applicable

7. Handling and storage

7.1 Precautions for safe handling:

Avoid the formation of electrostatic charges. Handle under an extractor fan.

7.2 Conditions for safe storage, including any incompatibilities:

Well sealed containers. In well ventilated premises. Away from sources of ignition and heat. Restricted access, only authorized to technicians. Do not store in plastic containers.

Recommended storage temperature: Room temperature. **Storage class:** 3

Technical instructions (air): Highly flammable.

7.3 Specific end use(s)

No more relevant data available

8. Exposure controls/personal protection

8.1 Control parameters:

ECTLV: 40 ppm = 70 mg/m³ VLA-ED: 40 ppm = 68 mg/m³ Factor for short-term value(Germany): 2

Derived No Effect Level (DNEL)

Workers Inhalation, acute (systemic): 68 mg/m³ Workers Inhalation, acute (local): 68 mg/m³ Workers Dermal, long exposure (systemic): 32.2mg/kgWorkers Inhalation, long term (systemic): 68 mg/m³ Workers Inhalation, long term (local): 68 mg/m³ Population Inhalation, acute (systemic): 220 mg/m³ Population, oral, acute (systemic): 0.6mg/kgPopulation Inhalation, acute (local): 22 mg/m³ Population Inhalation, long term (systemic): 4,8 mg/m³ Population Inhalation, long term (local): 4,8 mg/m³

Predicted No Effect Concentration (PNEC)

Freshwater: 10mg/lMarine water: 1mg/lPeriodic release: 10mg/lFreshwater Sediment: 7.53mg/kgSoil: 2.41mg/kgSewage treatment plant: 32mg/l

8.2 Exposure controls

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

Respiratory protection:

In the event of fumes forming/aerosols, use suitable respiratory protection. Filter A. Filter P3. Filter ABEK.

Hand protection:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **For the permanent contact gloves made of the following materials are suitable:**

Material: Butyl rubber. Recommended thickness of the material: ≥ 0.7 mm
Breakthrough time: ≥ 480 min.

- **As protection from splashes gloves made of the following materials are suitable:**

Material: Chloroprene. Recommended thickness of the material: ≥ 0.65 mm
Breakthrough time: ≥ 30 min

Eye/face protection:

Use safety glasses.

Individual hygiene measures:

Remove contaminated clothing. Use suitable work clothing. Wash hands before breaks and when the job is done.

Environmental exposure controls:

Avoid pollution of the soil, water supplies and drains.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: liquid

Colour: Colourless

Granulometry: N/A

Odour: Characteristic.

pH:

N/A

Melting point/freezing point: -48 °C

Initial boiling point and boiling range: $80 - 82$ °C

Flash point: $12,8$ °C (closed cup)

Flammability (solid, gas):

N/A

Upper/lower flammability or explosive limits: $16\%(\text{V}) / 3\%(\text{V})$

Vapour pressure: $98,64$ hPa (20 °C) $121,44$ hPa (25 °C)

Vapour density: N/A

Relative density: ($20/4$) $0,786$ g/ml

Solubility: Miscible with water

Partition coefficient: n-octanol/water: $-0,54$ 25 °C

Auto-ignition temperature: 524 °C

Decomposition temperature: N/A

Kinematic viscosity: N/A

Dynamic viscosity: $0,35$ mPa.s (20 °C)

9.2 Other information

No more relevant data available

10. Stability and reactivity

10.1 Reactivity

No specific data.

10.2 Chemical stability:

Heat sensitive.

10.3 Possibility of hazardous reactions

No specific data.

10.4 Conditions to avoid:

High temperatures.

10.5 Incompatible materials:

Acids. Bases. Oxidant agents (amongst others: perchloric acid, perchlorates, halogenates, CrO₃, halogen oxides, nitric acid, nitrogen oxides, non-metal oxides, chromo-sulphuric acid). Perchlorates. Nitrates.

10.6 Hazardous decomposition products:

Hydrogen cyanide.

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity:

LD50 oral mus : 617 mg/kg (OECD 401)

LD50 skn rbt : > 2.000 mg/kg (OECD 402)

LC50 inh mus : 6,022 mg/l 4h, (OECD 403)

Dangerous effects for health:

Skin corrosion/irritation: Not irritant in rabbits. **Serious eye damage/irritation:**

Strongly irritant in rabbits. **Respiratory or skin sensitisation:** No evidence. **Germ**

cell mutagenicity: The results of test are negative. **Carcinogenicity:** Not

classified. **Reproductive toxicity:** No evidence. **STOT- single exposure:** No

evidence. **STOT-repeated exposure:** No evidence., Not classified.

12. Environmental information

12.1 Toxicity:

Acute toxicity for fish:

LC50 (Pimephales Promelas) 1640 mg/l (96h)

LC50 (Oryzias latipes) >1000 mg/l (48h)

TLm (Oryzias latipes) 730 mg/l (48h)

Acute toxicity for aquatic invertebrates:

LC50 (Artemia salina Larvae) 521 mg/l (48h)

Acute toxicity for Algae:

EC50 (Raphidocelis subcapitata) green algae 7943 mg/l (48h)

EC50 (Phaeodactylum tricornutum) 9696 mg/l (72h)

Chronic toxicity for fish:

NOEC (Oryzias latipes) > 102 mg/l (21d)

Chronic toxicity for aquatic invertebrates:

NOEC (Daphnia magna) 160 mg/l (21d)

12.2 Persistence and Degradability :

Biodegradable product.

12.3 Bioaccumulative potential:

Product with a low bioaccumulative potential.

12.4 Mobility in soil :

Log P(oct): -0,34

Adsorption not significant.

12.5 Assessment PBT and MPMB :

According to Annex XIII of Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): Does not meet the criteria for PBT (persistent / bioaccumulative / toxic).

According to Annex XIII of Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): Does not meet the criteria vPvB (very persistent / very bioaccumulative).

12.6 Other adverse effects:

Do not allow it to enter soils or water channels.

· **Water hazard class:**

(German Regulation) (Assessment by list):

2 hazardous for water.

(Dutch Regulation):

10 May cause long-term adverse effects in the aquatic environment.

13. Disposal considerations

13.1 Waste treatment methods:

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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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. Transport information

14.1 UN number

UN1648

14.2 UN proper shipping name

ACETONITRILE

14.3 Transport hazard class(es)

3

14.4 Packing group

ADR/IMDG: II

IATA: II

14.5 Environmental hazards**14.6 Special precautions for user**

Not applicable

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

15. Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

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

15.2 Chemical safety assessment

Not applicable

16. Other information

Other precautionary statements

P261 Avoid breathing dust, fume, gas, mist, vapours or spray.
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 or 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.
P337+P313 If eye irritation persists: Get medical advice/attention.
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.
P370+P378 In case of fire: Use for extinction.
P501 Dispose of contents/container according to Directive 94/62/CE or 2008/98/CE.

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

1,2,4,5,6,7,8,9,10,11,13,14,15

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.