

SDS 017 Acetonitrile

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1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name **ECP Limited**
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Product	Acetonitrile				Code	017
CAS#	HSNO#	UN #	DG Class/es	Packing group #	Tracking?	Handlers Certificate?
75-05-8	HSR001071	1648	3	II	6.1	6.1

Recommended use: Laboratory Investigations

2. Hazards identification

- 2.1 GHS Classification
- 2.2 GHS Label elements, including precautionary statements
None
- 2.3 Other hazards - none

3. Composition/information on ingredients

Substance/Mixture: Substance

4. First aid measures

- 4.1 Description of first aid measures
General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact
Wash off with soap and plenty of water. Consult a physician.
In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
- 4.2 Most important symptoms and effects, both acute and delayed Treat as cyanide poisoning., Always have on hand a cyanide first-aid kit, together with proper instructions., The onset of symptoms is generally delayed pending conversion to cyanide. Nausea, vomiting, diarrhoea, headache, dizziness, rash, cyanosis, excitement, depression, drowsiness, impaired judgment, lack of coordination, stupor, death.
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
- 4.3 Indication of any immediate medical attention and special treatment needed
No data available

5. Firefighting measures

- 5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

No data available

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

Use water spray to cool unopened containers.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal.

7. Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Handle and store under inert gas.

7.3 Specific end use(s)

No data available

8. Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

8.2 Exposure controls

Appropriate engineering controls Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses

Use equipment for eye protection tested and approved under appropriate government standards.

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Wash and dry hands.

Full contact

Material: butyl-rubber

Minimum layer thickness: 0.3 mm

Break through time: 480 min

Splash contact

Material: butyl-rubber

Minimum layer thickness: 0.3 mm

Break through time: 480 min

Body Protection

Complete suit protecting against chemicals. Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination or respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance

Form: clear, liquid

Colour: colourless

b) Odour

ether-like

c) Odour Threshold

No data available

d) pH

No data available

e) Melting point/freezing point

Melting point/range: -48 °C

f) Initial boiling point and boiling range

81 - 82 °C

g) Flash point

2.0 °C - closed cup

h) Evaporation rate 5.8

i) Flammability (solid, gas)

No data available

j) Upper/lower flammability or explosive limits

Upper explosion limit: 16 %(V) Lower explosion limit: 3 %(V)

k) Vapour pressure

73.18 hPa at 15 °C

121.44 hPa at 25 °C

413.23 hPa at 55 °C

98.64 hPa at 20 °C

l) Vapour density

1.42 - (Air = 1.0)

m) Relative density 0.786 g/mL at 25 °C

n) Water solubility completely soluble

o) Partition coefficient: n-octanol/water

log Pow: -0.54 at 25 °C

p) Auto-ignition temperature

524.0 °C

q) Decomposition temperature

No data available

r) Viscosity

No data available

10. Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

No data available

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight.

10.5 Incompatible materials

Acids, Bases, Oxidizing agents, Reducing agents, Alkali metals

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x)

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male - 1,320 - 6,690 mg/kg

LC50 Inhalation - Mouse - 4 h - 3587 ppm

LC50 Inhalation - Rat - 4 h - 26.8 mg/l

LD50 Dermal - Rabbit - male and female - > 2,000 mg/kg

Skin corrosion/irritation

Skin - Rabbit - No skin irritation - OECD Test Guideline 404

Serious eye damage/eye irritation

Eyes - Rabbit - Irritating to eyes. - OECD Test Guideline 405

Respiratory or skin sensitisation

Buehler Test - Guinea pig - OECD Test Guideline 406 - Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Genotoxicity in vitro - Hamster - ovary - negative

Mutation in mammalian somatic cells.

Genotoxicity in vitro - Ames test - *S. typhimurium* - with and without metabolic activation - Not mutagenic in Ames Test

Genotoxicity in vitro - Hamster - ovary - Equivocal evidence. Sister chromatid exchange

Genotoxicity in vivo - Mouse - Inhalation - Positive results were obtained in some in vivo tests.

Carcinogenicity

No evidence of carcinogenicity in animal studies.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

Animal testing did not show any effects on fertility.

Specific target organ toxicity - single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific target organ toxicity - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

No aspiration toxicity classification

Potential health effects

Inhalation

Harmful if inhaled. May cause respiratory tract irritation.

Ingestion

Harmful if swallowed.

Skin

Harmful if absorbed through skin. May cause skin irritation.

Eyes

Causes serious eye irritation.

Signs and Symptoms of Exposure

Treat as cyanide poisoning., Always have on hand a cyanide first-aid kit, together with proper instructions., The onset of symptoms is generally delayed pending conversion to cyanide. Nausea, Vomiting, Diarrhoea, Headache, Dizziness, Rash, Cyanosis, Excitement, Depression, Drowsiness, Impaired judgment, Lack of coordination, Stupor, Death.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional Information

RTECS: AL7700000

12. Ecological information

12.1 Toxicity

Toxicity to fish

LC50 - Pimephales promelas (fathead minnow) - 1,640.00 mg/l - 96 h

NOEC - Oryzias latipes - 102 mg/l - 21 d

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 3,600 mg/l - 48 h

Method: OECD Test Guideline 202

NOEC - Daphnia magna (Water flea) - 160 mg/l - 21 d 12.2

Persistence and degradability

Biodegradability

Result: 84 % - Readily biodegradable.

Method: OECD Test Guideline 301C

12.3 Bioaccumulative potential

No bioaccumulation is to be expected ($\log Pow \leq 4$).

12.4 Mobility in soil

Not expected to adsorb on soil.

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

Avoid release to the environment.

13. Disposal considerations

13.1 Waste treatment methods

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. Transport Information Table

		ADR/RID – European packaging certification	IMDG International Maritime Dangerous Goods Code	IATA – DGR International Air Travel Association – Dangerous Goods Regulations
14.1	UN Number	1648	1648	1648
14.2	UN Proper Shipping name	ACETONITRILE	ACETONITRILE	Acetonitrile
14.3	Transport Hazard Class	3	3	3
14.4	Packaging group	II	II	II
14.5	Environmental Hazards	No	No	No
14.6	Special precautions for user	No data available.		

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
National regulatory information

HSNO Approval Code: HSR001071

HSNO Group Standard Approval: HSR002596 - Laboratory Chemicals and Reagent Kits Group
Standard 2006

Tracking Required: 6.1B

Approved Handler Cert.: 6.1B

16. Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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