SAFETY DATA SHEET

ACETONITRILE

CAS No.: 75-05-8

This Safety Data Sheet is compiled from well-established published chemical, GHS classification and regulatory reference sources for this substance. It is supplied by Suraj Chemicals as the distributor/supplier of record and is not a manufacturer-issued document. Users should also consult the specific manufacturer's SDS where available.

1. IDENTIFICATION

Product Name	Acetonitrile
CAS Number	75-05-8
Recommended Use	Industrial / commercial chemical trading and distribution
Supplier	Suraj Chemicals, No 92, Govindappa Naicken Street, Shiva Complex, Chennai - 600001, India
Emergency Telephone	+91 - 9840284032, 9176135357 / +91 - 44 - 25393652

2. HAZARD(S) IDENTIFICATION

GHS Signal Word Danger

HAZARD CLASSIFICATION

- Flammable liquid - Category 2
- Acute toxicity, oral - Category 4
- Acute toxicity, dermal - Category 4
- Acute toxicity, inhalation - Category 4
- Serious eye irritation - Category 2A

HAZARD STATEMENTS

- H225 - Highly flammable liquid and vapour
- H302 - Harmful if swallowed
- H312 - Harmful in contact with skin
- H319 - Causes serious eye irritation
- H332 - Harmful if inhaled

PRECAUTIONARY STATEMENTS

- P210 - Keep away from heat, sparks, open flames and hot surfaces; no smoking
- P233 - Keep container tightly closed
- P240 - Ground/bond container and receiving equipment
- P261 - Avoid breathing vapours
- P264 - Wash exposed skin thoroughly after handling
- P271 - Use only outdoors or in a well-ventilated area
- P280 - Wear protective gloves/eye protection/face protection
- P301+P312 - IF SWALLOWED: call a POISON CENTER or doctor if you feel unwell
- P302+P352 - IF ON SKIN: wash with plenty of water
- P305+P351+P338 - IF IN EYES: rinse cautiously with water for several minutes; remove contact lenses if present; continue rinsing
- P304+P340 - IF INHALED: remove to fresh air and keep comfortable for breathing
- P403+P235 - Store in a well-ventilated place and keep cool

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Acetonitrile
CAS Number	75-05-8
Physical State	Liquid
Appearance / Odour	Colorless liquid with a characteristic sweetish, ether-like odor.

4. FIRST-AID MEASURES

Eye Contact	Rinse cautiously with water for several minutes; remove contact lenses if present; continue rinsing and get medical attention if irritation persists.
Skin Contact	Wash off with plenty of water and soap; remove contaminated clothing; seek medical attention if irritation persists.
Inhalation	Remove immediately to fresh air and keep at rest in a position comfortable for breathing; seek immediate medical attention, as this compound can be metabolized to release cyanide.
Ingestion	Do NOT induce vomiting; rinse mouth; seek immediate medical attention due to potential cyanide-related toxicity.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Dry chemical, carbon dioxide, alcohol-resistant foam; water spray to cool exposed containers.
Unsuitable Extinguishing Media	Avoid a straight/high-pressure water stream, which can spread the fire.
Special Hazards	Highly flammable, low-flash-point liquid producing vapor that readily forms explosive mixtures with air; combustion or thermal decomposition can release highly toxic hydrogen cyanide and oxides of nitrogen; firefighters must wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Measures	Eliminate all ignition sources, ventilate the area, contain the spill with inert absorbent, avoid contact and inhalation, prevent entry into drains/waterways, and collect for disposal by trained personnel.

7. HANDLING AND STORAGE

Handling Precautions	Use only with adequate ventilation or local exhaust, keep away from heat/sparks/open flame, use grounded/bonded equipment, avoid all skin/eye contact and inhalation, and be aware of its metabolic conversion to cyanide in the body on significant exposure.
Storage Conditions	Store in a cool, well-ventilated, flammables-rated area away from heat, light, strong acids, bases and oxidizers, in tightly closed containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits / PPE	OSHA PEL / ACGIH TLV ~20 ppm TWA (skin notation); use chemical-resistant gloves (e.g., Viton, nitrile with caution), chemical splash goggles, and a NIOSH-approved organic vapor respirator with explosion-proof local exhaust ventilation where vapor exceeds exposure limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance / Odour	Colorless liquid with a characteristic sweetish, ether-like odor.
Boiling Point	~81-82 C
Melting Point	~-45 C
Flash Point	~2-6 C (closed cup)
Density / Specific Gravity	~0.786 g/cm3 at 20 C
Water Solubility	Miscible with water in all proportions
pH Value	Not applicable (non-aqueous, essentially neutral organic liquid)

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions of storage and use.
Incompatible Materials	Strong oxidizing agents, strong acids and bases (can generate toxic/flammable gases), and reducing agents.
Hazardous Decomposition	Hydrogen cyanide, oxides of nitrogen, carbon monoxide and carbon dioxide on combustion or strong thermal decomposition.

11. TOXICOLOGICAL INFORMATION

Summary	Harmful if swallowed, inhaled or in contact with skin; causes serious eye irritation; metabolized in the body to release cyanide, which can cause delayed systemic toxicity (headache, nausea, weakness, and at high exposure, more severe cyanide-type effects); not classified as a carcinogen, mutagen or reproductive toxicant based on current data, though handling requires the same respect given to its cyanide-release potential.

12. ECOLOGICAL INFORMATION

Summary	Readily biodegradable; low bioaccumulation potential; not classified as hazardous to the aquatic environment under standard GHS criteria based on available data, though spills should be prevented from entering waterways given acute toxicity.

13. DISPOSAL CONSIDERATIONS

Disposal Method	Dispose of as hazardous waste through a licensed waste management/incineration facility in accordance with local regulations; do not discharge to drains.

14. TRANSPORT INFORMATION

UN Number	UN1648
Transport Hazard Class	Class 3 (Flammable liquid)
Packing Group	II

15. REGULATORY INFORMATION

Notes	Widely used HPLC/analytical and industrial extraction solvent; classified as highly flammable and acutely toxic under GHS, OSHA HCS and EU CLP; regulated for transport under IMDG/ADR/IATA as UN1648, Class 3, Packing Group II; requires cyanide-aware handling precautions despite not being classified as a cyanide salt itself.

16. OTHER INFORMATION

Prepared By	Suraj Chemicals, Technical / QA Desk
Date of Issue	29 Sep 2026
Note	This SDS is compiled from well-established published GHS hazard classification data and general chemical reference sources for this substance, in the standard 16-section format. Values are believed accurate but Suraj Chemicals makes no warranty, express or implied, regarding their completeness. Users should evaluate suitability for their own specific use.

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