

MATERIAL SAFETY DATA SHEET

<u>www.britiscientific.com</u> **Issue Date:**

1- Chemical Product Information and Company Identification.

Product Name: Acetonitrile, AnStan® GC Reference standard.

Synonym: Methyl cyanide.

Product code: BS10081.

CAS Number: 75-05-8.

Company Name: Briti Scientific.

Company Address: Plot No: 78/B/13, SY-79, Phase-VI, Jeedimetla, Hyderabad- 500 055.

Telangana, India.

Section 2- Composition / Information on Ingredients.

CAS No. Chemical Name Mol. Formula 75-05-8. Methyl cyanide. CH₃CN.

Section 3- Hazards Identification.

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Flammable liquids (Category 2), H225

Acute toxicity, Oral (Category 4), H302

Acute toxicity, Inhalation (Category 4), H332

Acute toxicity, Dermal (Category 4), H312

Eye irritation (Category 2), H319

Label elements

Labelling according Regulation (EC) No 1272/2008





Signal word Danger

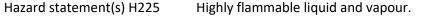












H302 + H312 + H332 Harmful if swallowed, in contact with skin or if

inhaled

H319 Causes serious eye irritation.

Precautionary statement(s)

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

ignition sources. No smoking

P280 Wear protective gloves/ protective clothing

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

Other hazards

This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher.

Potential Acute Health Effects: Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (permeator). Severe overexposure can result in death.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available.
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Reproductive system/toxin/male [SUSPECTED]. The substance is toxic to blood, kidneys, lungs, liver, mucous membranes, gastrointestinal tract, upper respiratory tract, skin, eyes, central nervous system (CNS). The substance may be toxic to the reproductive system. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Section 4- First Aid Measures.

Eye Contact: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Get medical attention.











Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Serious Skin Contact: Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Serious Inhalation: Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation.

WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

Ingestion: If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Serious Ingestion: Not available.

Section 5- Fire Fighting Measures.

Flammability of the Product : Flammable.

Auto-Ignition Temperature : 524°C (975.2°F)

Flash Points: CLOSED CUP: 2°C (35.6°F). OPEN CUP: 5.6°C (42.1°F) (Cleveland).

Flammable Limits: LOWER: 4.4% UPPER: 16%

Products of Combustion: These products are carbon oxides (CO, CO2).

Fire Hazards in Presence of Various Substances: Highly flammable in presence of open flames

and sparks, of heat, of oxidizing materials

Explosion Hazards in Presence of Various Substances: Risks of explosion of the product in presence of mechanical impact: Not available.

Risks of explosion of the product in presence of static discharge: Not available.

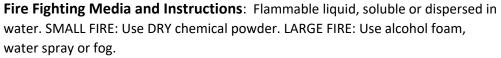












Special Remarks on Fire Hazards: Store under nitrogen. **Special Remarks on Explosion Hazards**: Not available.

Section 6- Accidental Release Measures.

Small Spill: Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

Large Spill: Flammable liquid, Poisonous liquid. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7- Handling and Storage.

Precautions: Keep locked up.. Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, reducing agents, acids, alkalis, moisture.

Storage: Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame). Do not store above 23°C (73.4°F).

Section 8- Exposure Control/Personal Protection.

Engineering Controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location

Personal Protection: Splash goggles, Lab coat, Vapours respirator. Be sure to use an approved/certified respirator or equivalent Gloves.











Personal Protection in Case of a Large Spill: Splash goggles, Full suit. Vapours respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: TWA: 40 (ppm) from ACGIH (TLV) [United States] [1999] STEL: 60 from ACGIH (TLV) [United States] [1999] TWA: 20 (ppm) from NIOSH TWA: 40 STEL: 60 (ppm) from OSHA (PEL) [United States] Consult local authorities for acceptable exposure limits.

Section 9- Physical and Chemical Properties.

Physical state and appearance: Liquid. (Liquid.)

Odour : Aromatic; Ether-like (Strong.)

Taste: Burning, sweetish **Molecular Weight:** 41.05 g/mole **Colour:** Colourless. pH (1% soln/water): 7 [Neutral.] **Boiling Point:** 81.6 (178.9°F) **Melting Point:** -46°C (-50.8°F) **Critical Temperature:** Not available. **Specific Gravity:** 0.783 (Water = 1) vapour Pressure: 9.7kPa (@ 20°C) vapour Density: 1.42 (Air = 1)Volatility: Not available. Not available.

Odour Threshold:

Water/Oil Dist. Coeff.:

Not available

Not available

Not available.

Dispersion Properties: See solubility in water, methanol.

Solubility: Soluble in cold water, hot water, methanol.

Section 10- Stability and Reactivity.

Stability: The product is stable.

Instability Temperature : Not ava









Conditions of Instability: Not available.

Incompatibility with various substances: Reactive with oxidizing agents,

reducing agents, acids, alkalis, moisture.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity: High dielectric constant; high polarity; strongly reactive.

Special Remarks on Corrosivity: Not available

Polymerization: Will not occur.

Section 11- Toxicological Information.

Routes of Entry: Absorbed through skin. Eye contact. Inhalation. Ingestion.

Toxicity to Animals

WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute oral toxicity (LD50): 269 mg/kg [Mouse]. Acute dermal toxicity (LD50): 1250 mg/kg [Rabbit.]. Acute toxicity of the vapour (LC50): 7551 8 hours [Rat.].

Chronic Effects on Humans: DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Reproductive system/toxin/male [SUSPECTED]. Causes damage to the following organs: blood, kidneys, lungs, liver, mucous membranes, gastrointestinal tract, upper respiratory tract, skin, eyes, central nervous system (CNS). May cause damage to the following organs: the reproductive system

Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (permeator).

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Material is irritating to mucous membranes and upper respiratory tract.

Section 12- Ecological Information.

Eco toxicity: Eco toxicity in water (LC50): 1020 mg/l 96 hours [Fish (Fathead Minnow)]. 1850 mg/l 96 hours [Fish (bluegill)].

BOD5 and **COD**: Not available.

Products of Biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

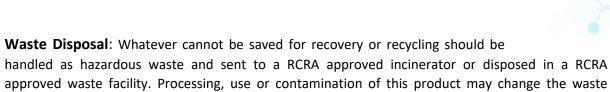
Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself











management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local

requirements

Section 14- Transport Information.

DOT Classification: CLASS 3: Flammable liquid. **Identification**: Acetonitrile UNNA: UN1648 PG: II **Special Provisions for Transport**: Not available.

Section 15-Other Regulatory Information.

Federal and State Regulations: New York release reporting list: Acetonitrile Rhode Island RTK hazardous substances: Acetonitrile Pennsylvania RTK: Acetonitrile Florida: Acetonitrile Minnesota: Acetonitrile Massachusetts RTK: Acetonitrile New Jersey: Acetonitrile TSCA 8(b) inventory: Acetonitrile TSCA 8(a) PAIR: Acetonitrile TSCA 8(d) H and S data reporting: Acetonitrile: 1992 SARA 313 toxic chemical notification and release reporting: Acetonitrile CERCLA: Hazardous substances.: Acetonitrile: 5000 lbs. (2268 kg)

Other Regulations: OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications: WHMIS (Canada): CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).

CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC). CLASS D-2B: Material causing other toxic effects (TOXIC).

DSCL (EEC): R11- Highly flammable. R23/24/25- Toxic by inhalation, in contact with skin and if swallowed. S16- Keep away from sources of ignition - No smoking. S27- Take off immediately all contaminated clothing. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

HMIS (U.S.A.): Health Hazard: 2 Fire Hazard: 3 Reactivity: 0 Personal Protection: h

National Fire Protection Association (U.S.A.): Health: 2 Flammability: 3 Reactivity: 0 Specific

hazard

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Protective Equipment: Gloves, Lab coat, Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate Splash goggles.

Section 16- Other Information.

Briti Scientific provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.







