

1. Product and Company Identification

Product Codes: 40-4050-XX
Product Name: Diluent
Product Use: For Research Use Only
Manufacturer Information
Company Name: Glen Research LLC
22825 Davis Drive, #100
Sterling, VA 20164 USA
+1-703-437-6191
Phone Number: +1-703-437-6191
Web Site Address: www.glenresearch.com
Email Address: msds@glenres.com
Information in case of emergency
CAS Number: Chemtrec, 800-424-9300; Outside USA +1-703-527-3887
75-05-8

2. Hazards Identification



Pictograms:

Signal Words: Danger

GHS Hazard Statements

H225: Highly Flammable Liquid and Vapor.
H302+312+332: Harmful if swallowed, in contact with skin, or if inhaled.
H319: Causes serious eye irritation.

GHS Precautionary Statements

P103: Read label before use.
P210: Keep away from heat/sparks/open flames/hot surfaces – No Smoking.
P233: Keep container tightly closed.
P260: Avoid breathing fumes or vapors.
P270: Do not eat, drink or smoke when using this product.
P271: Use only in a well ventilated area.
P280: Wear protective gloves / protective clothing / eye protection / face protection.

GHS Response Statements

P301+330: IF SWALLOWED: Rinse mouth with water.
P302+350: IF ON SKIN: Gently wash with soap and water.
P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so - continue rinsing.
P306+360: IF ON CLOTHING: Rinse contaminated clothing and skin immediately with plenty of water before removing clothes.
P312: Call a POISON CENTER or doctor/physician if you feel unwell.
P362: Take off contaminated clothing and wash before use.

GHS Storage and Disposal Phrases

P403+233: Store in a well-ventilated place. Keep container tightly closed.
P501: Dispose of contents / container in a safe way in accordance with all federal, state and local regulations.

Emergency Overview

Flammable Liquid, Target organ effect, Harmful by ingestion, Harmful by skin absorption, Irritant

Target Organs

Respiratory System, Cardiovascular System, Blood, Kidney, Liver, Central Nervous System

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3. Composition/Information on Ingredients

Product Name	CAS #	EC-No	Concentration	M.W.	Formula
Acetonitrile	75-05-8	200-835-2	100%	41.05 g/mol	C ₂ H ₃ N

4. First Aid Measures

Emergency and First Aid Procedures

If inhaled:

Remove to fresh air.
If not breathing, give artificial respiration. Get medical attention.

In case of skin contact:

Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Wash clothing before reuse. Get medical attention.

If swallowed:

Rinse mouth with water. Do not induce vomiting. Get medical attention.

If in contact with eyes:

Rinse cautiously with water for several minutes. Remove contact lenses if present and safe to do so. Continue rinsing. Get medical attention if symptoms occur after washing.

Signs and Symptoms of Exposure

Nausea, Vomiting, Headache, Hypersalivation, Chest pain or tightness, Profuse sweating, Abdominal pain and hematemesis, Weakness, Stupor, Respiratory depression, Metabolic acidosis, Convulsions, Tachycardia, Shock, Eye irritation.

Treatment

Treat as cyanide poisoning. Delayed health effects possible. The onset of symptoms is generally delayed pending conversion to cyanide in the body.

5. Fire Fighting Measures

Suitable Extinguishing Media

Use a Class A Extinguisher (Dry chemical, carbon dioxide, water or foam).

Special protective equipment for fire fighters

Wear self-contained breathing apparatus (SCBA) for fire fighting if necessary.
Wear protective clothing to prevent contact with skin and eyes.

Flammable Properties and Hazards

Highly flammable liquid and vapor. Vapor may travel distances to sources of ignition.

6. Accidental Release Measures

Personal Precautions

Avoid breathing vapors. Evacuate personnel to safe areas.

Protective equipment

Use personal protective equipment.

Emergency procedures

Remove all sources of ignition. Vapors may travel distances to sources of ignition. Ensure adequate ventilation.

Methods and Material for containment and cleaning up.

Absorb spillage with sand, absorbent pads. Do not let product enter the drain. Wear impermeable gloves, safety glasses and a lab coat when cleaning up the spill. Dispose of absorbent and spillage in compliance with local and state regulations.

7. Handling and Storage

Precautions To Be Taken in Handling

Handle using safe laboratory practices. Avoid all direct contact.

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Recommended Storage

Controlled room temperature.

Precautions To Be Taken in Storing

Keep container tightly closed. Store in well-ventilated place.

Other Precautions

Protect from sunlight.

8. Exposure Controls/Personal Protection

Product Name	CAS #	OSHA PEL (TWA)	ACGIH TLV	OSHA (STEL)
Acetonitrile	75-05-8	40ppm	20ppm	60ppm

Engineering Controls (Ventilation etc.)

Local exhaust ventilation is usually sufficient.

Respiratory Equipment (Specify Type)

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) 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 such as NIOSH (US) or CEN (EU).

Eye Protection

Safety glasses with side shields. Wear splash resistant goggles or face shield if splashes are likely to occur.

Protective Gloves

Impermeable, chemically resistant gloves.

Other Protective Clothing

Lab coat, chemical resistant lab coat, protective chemical suit, based on risk assessment of activities.

Work/Hygienic/Maintenance Practices

Wash hands after handling. Do not eat, drink, or smoke when using this product.

9. Physical and Chemical Properties

Physical State:	<input type="checkbox"/> Gas <input checked="" type="checkbox"/> Liquid <input type="checkbox"/> Solid
Appearance:	Liquid, clear.
Odor:	Pungent, sweet, ether-like odor (acetonitrile)
Odor Threshold:	170ppm (acetonitrile)
pH:	No data
Melting Point:	-48°C
Initial Boiling Point and Boiling Range:	82°C
Flash Point:	2.0°C
Specific Gravity:	0.79g/mL
Evaporation Rate:	5.8
Flammability:	Highly flammable
Explosive Limits:	LEL: 4% UEL: 16%
Vapor Pressure (vs. Air or mm Hg):	89.86mmHg at 25°C
Vapor Density (vs. Air = 1):	1.42
Solubility in Water:	Fully soluble
Partition Coefficient (n-octanol/water):	Log Pow: -0.34
Auto-ignition Temperature:	524°C
Decomposition Temperature:	No data
Viscosity:	No data
Percent Volatile:	100%

10. Stability and Reactivity

Reactivity

Stable material, hazardous polymerization will not occur.

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Chemical Stability: Unstable [] Stable [X]

Possibility of Hazardous Reactions:
Vapors may form explosive mixture with air.

Conditions To Avoid - Instability
Heat, flames, and sparks. Extremes of temperature and direct sunlight.

Incompatibility - Materials To Avoid
Strong oxidizing reagents, alkali metals.

Hazardous Decomposition or Byproducts
Oxides of nitrogen, carbon, hydrogen cyanide may evolve when heated to decomposition.

11. Toxicological Information

Route(s) of Entry:
Inhalation? Yes Skin? Yes Eyes? Yes Ingestion? Yes

Acute Toxicity
LD50 Oral – rat – 2460 mg/kg
LC50 Inhalation – rat 8 h – 7551 ppm
LD50 Dermal – rabbit – 2000 mg/kg

Skin corrosion/irritation
Mild

Serious eye damage/ eye irritation
Serious eye irritation

Respiratory or skin sensitization
No data available

Germ Cell mutagenicity
No data available

Carcinogenicity

Product Name	CAS #	NTP	IARC	OSHA
Acetonitrile	75-05-8	Not listed	Not listed	Not listed
Not anticipated to be carcinogenic				

Reproductive toxicity
No data available

Specific target organ toxicity – single exposure (GHS)
No data available

Specific target organ toxicity – repeated exposure (GHS)
No data available

Aspiration hazard
No

Medical Conditions Generally Aggravated By Exposure
No data available.

This product should be handled with the usual care when dealing with chemicals.

12. Ecological Information

Ecotoxicity
Acetonitrile has a low acute toxicity to aquatic organisms.
Pimephales promelas (fathead minnow) 96-hour LC50 1000mg/L

Persistence and degradability
No data available

Bioaccumulative potential
Bioaccumulation of acetonitrile is not anticipated.

Mobility in soil
No data available

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Other adverse effects

No data available

13. Disposal Considerations

Waste Disposal Method

Observe all federal, state and local regulations. For Contaminated Packaging - dispose of in compliance with regulations. Contact a licensed professional waste disposal service for proper disposal. Burn in a chemical incinerator equipped with afterburner and scrubber.

14. Transport Information

LAND TRANSPORT (49CFR)

UN Number – UN1648, Class 3, Packing Group II
Proper Shipping Name: Acetonitrile
Reportable Quantity (RQ) 5000 lbs
Marine Pollutant: No
Poison Inhalation Hazard (PIH): No

AIR TRANSPORT (ICAO/IATA)

UN Number – UN1648, Class 3, Packing Group II
Proper Shipping Name: Acetonitrile

MARINE TRANSPORT (IMDG/IMO)

UN Number – UN1648, Class 3, Packing Group II, EMS-No: F-E, S-D
Proper Shipping Name: Acetonitrile
Marine Pollutant: No

15. Regulatory Information

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: Acetonitrile, CAS 75-05-8

SARA 311/312

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right to Know Components

Acetonitrile 75-05-8

Pennsylvania Right to Know Components

Acetonitrile 75-05-8

New Jersey Right to Know Components

Acetonitrile 75-05-8

California Prop. 65 Components

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

16. Other Information

For all other inquiries about this product contact Glen Research at 1-800-327-GLEN or 1-703-437-6191.

The information provided herein is based on sources believed to be reliable as of December 11, 2020 and pertains only to the material designated. Glen Research Corporation makes no warranty or representation to its completeness, accuracy or currency. This material is intended for use by persons with the pertinent technical skills, and at their discretion and risk. It is the responsibility of the user to determine the product's suitability for its intended use, the product's safe use and the product's proper disposal. Disposal of hazardous material may be subject to federal, state or local regulations.