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MSDS
COVER SHEET

Pages including cover sheet: 5

Product Name: **Diluent**
Catalog Number: **40-4050-XX**
Product Description: Acetonitrile, Anhydrous

Glen Research Corporation provides Material Safety Data Sheets (MSDS) based on the hazardous components of each product.

Components and MSDS attached

Acetonitrile (100%)	CAS number	75-05-8

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Material Safety Data Sheet

Section I: Identification & Information

Product Name: Diluent
Product Description: Anhydrous Acetonitrile
Catalog Number: 40-4050-XX

Trade Name: Acetonitrile Chemical Family: Nitrile

Synonyms: Methyl Cyanide, Cyanomethane, and Ethyl Nitrile
,
Formula: CH_3CN M.W.: 41.05

DOT Proper Shipping Name: Acetonitrile
DOT Identification No.: UN1648 CAS No.: 75-05-8
DOT Hazard Class: Flammable Liquid

Section II: Physical Properties

Appearance: Clear, colorless liquid
Vapor Pressure @ 20°C: 73mmHg
Percent Volatile by Volume: ca 100
Evaporation Rate (BuAc =1): 5.79
Boiling Point: 180°F (82°C)
Freezing point: -46°C (-51°F)

Odor: Sweet, aromatic; ether-like
Vapor Density (air=1): 1.42
Specific Gravity (H_2O=1): 0.7857
Stability: Stable
Solubility in H_2O: Soluble
Water Reactive: n/a

Section III: Reactivity Hazard Data

Stable material at room temperature in closed containers under normal storage and handling conditions. Hazardous polymerization is not expected to occur.

Conditions to avoid: Heat, sparks, open flames, open containers, poor ventilation, and direct sunlight.

Materials to avoid: Strong oxidizing agents and strong acids and bases (e.g. chlorosulfonic acid), explosives, nitrogen-fluorine compounds, sulfites, perchlorates, reducing agents, and plastics.

Hazardous decomposition products: Incomplete combustion can generate hydrogen cyanide and other toxic vapors.

Section IV: Fire and Explosion Hazard Data

Flash Point: 6°C (closed-cup) 42°F Autoignition temperature: 524°C
Flammable Limits in air % by volume: Lower limit: 3.0 Upper limit:16.0

General Information: Containers can build up pressure if exposed to heat or fire. Use water spray to keep containers cool.

Extinguishing Media: dry chemical, CO_2, alcohol foam, water spray on containers. Water may spread fire.

Special Fire Fighting Procedures: Wear full protective clothing and self-contained breathing apparatus. May give off toxic vapors. Very volatile and extremely flammable.

Unusual Fire and Explosion Hazards: Vapor may be heavier than air. Vapors may travel and be ignited by distant ignition sources. Water may be ineffective. Dangerous fire hazard when exposed to heat or flame.

Section V: Hazardous Ingredients

Acetonitrile ca 100%

Occupational Exposure Limits:

OSHA PEL=8H TWA 40ppm ACGIH: TLV-TWA 40ppm;STEL 60ppm

IDLH=500ppm

Section VI: Toxicity and Health Hazard Data

See Registry of Toxic Effects of Chemical Substances (RTECS).

Primary routes of entry: Inhalation, skin absorption, ingestion.

- Inhalation: Brief inhalation can cause irritation of the nose and throat, flushing of the face, and bronchial tightness. Heavier exposure can cause nausea, dizziness, headache, vomiting, chest or abdominal pain, respiratory depression, extreme weakness, stupor, convulsions and death, depending on the concentration and time.
- Ingestion: May cause central nervous system depression, kidney damage, and liver damage. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause muscle tremor and impaired motor function. May cause cardiac disturbances. Bluish skin color may accompany some symptoms.
- Eye contact: May cause moderate eye irritation. Lachrymator.
- Skin contact: May cause skin irritation. May be absorbed in harmful amounts.
- Chronic exposure can produce damage to the liver and kidneys. Preclude from exposure those individuals with diseases of the liver, kidneys, skin, and central nervous system.

Target Organs: Liver, kidneys, respiratory system, CNS, and CVS.

Emergency First Aid:

• Ingestion: Call poison control center for assistance. Get emergency medical assistance. If conscious, and alert, give 2-4 cupfuls of water or milk. Never induce vomiting or give anything by mouth to a victim who is unconscious or having convulsions. Trained persons may administer amyl nitrate by inhalation as antidote where stupor or unconsciousness occurred.

• Eye contact: Rinse with copious amounts of water for at least 15 minutes. Get emergency medical assistance.

• Skin contact: Flush thoroughly with water for at least 15 minutes. Wash affected skin with soap and water. Remove contaminated clothes and shoes. Wash clothing before reuse. Get emergency medical assistance.

• Inhalation: Immediately remove to fresh air. If not breathing, give artificial respiration. Keep patient warm and at rest. Get emergency medical assistance.

Section VII: Special Protection

Ventilation: Adequate ventilation is required to control vapors and odor.

Respiratory Protection: Use approved respiratory equipment. Follow NIOSH and equipment manufacturer's recommendations to determine appropriate equipment.

Skin Protection: Protective rubber gloves and clothing are recommended. The choice of material must be based on chemical resistance and other user requirements.

Eye Protection: Laboratory safety glasses are minimum protection. Goggles are preferred.

Emergency eye wash fountains and safety showers should be available in the vicinity of any potential exposure. Ground and bond metal containers to minimize sparks.

Section VIII: Spill and Disposal Procedures

Wear protective clothing and use approved respiration equipment. If a spill occurs, protect from ignition. Use water spray to dilute spill to a non-flammable mixture. Ventilate area of spill. Absorb spilled material in an absorbent recommended for solvent spills and scoop with a nonsparking tool. Remove waste to a safe location for disposal by approved methods. If released to the environment, comply with all regulatory notification requirements.

Waste Disposal: Dispose of acetonitrile as an EPA Hazardous Waste.

Section IX: Storage

Acetonitrile should be stored in a cool area away from ignition sources, combustibles and oxidizing materials. Protect from temperature extremes and direct sunlight.

This chemical is subject to the notification requirements of section 313 of the Emergency Planning and Community Right-to-Know Act of 1986. This law requires certain manufacturers to report on annual emissions of specified toxic chemical and chemical categories.

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Key:
ca: Approximately
PEL:Permissible Exposure Level
STEL: Short Term Exposure Level
TWA: Time Weighted Average
IDLH: Immediately Dangerous to Life and Health
BuAc: Butyl Acetate
TLV: Threshold Limit Value
n/a: not available