



1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** : Acetonitrile  
**Catalog Number** : A1014  
**Synonym** : Methyl cyanide  
 ACN  
**Brand** : Northernchem  
**Product Use** : For laboratory research purposes  
**Manufacturer** : Northernchem Inc.  
 8485 Montrose Rd., Niagara Falls, Ontario, CANADA L2H 3L7  
 Phone : +1(905) 353-1500  
 Fax : +1(289) 975-5138  
**Supplier** : Northernchem Inc.  
 8485 Montrose Rd., Niagara Falls, Ontario, CANADA L2H 3L7  
 Phone : +1(905) 353-1500  
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**Emergency Phone** : +1(905) 650-1938

2. HAZARDS IDENTIFICATION

**Target Organs**  
 Lungs, Blood, Kidney, Liver, Central nervous system Central nervous system, Liver, Kidney, Blood, Lungs

WHMIS Classification

<b>B2</b>	Flammable liquid	Flammable liquid
<b>D2B</b>	Toxic Material Causing Other Toxic Effects	Moderate eye irritant

GHS Classification

<b>Flammable liquids</b>	Category	2
<b>Acute toxicity, Oral</b>	Category	4
<b>Acute toxicity, Inhalation</b>	Category	4
<b>Acute toxicity, Dermal</b>	Category	4
<b>Skin irritation</b>	Category	3
<b>Eye irritation</b>	Category	2A

GHS Label Elements, Including Precautionary Statements

**Pictogram**

**Signal Word** Danger

**Hazard Statement(s)**  
**H225** Highly flammable liquid and vapour.  
**H302+H312+H332** Harmful if swallowed, in contact with skin or if inhaled  
**H316** Causes mild skin irritation.  
**H319** Causes serious eye irritation.

**Precautionary Statement(s)**

- P210** Keep away from heat/sparks/open flames/hot surfaces. - 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.

**HMIS Classification**

- Health Hazard** 2
- Chronic Health Hazard** \*
- Flammability** 3
- Physical Hazards** 0

**NFPA Rating**

- Health Hazard** No data available
- Fire** No data available
- Reactivity Hazard** No data available

**Potential Health Effects**

- Inhalation** : May be harmful if inhaled. Causes respiratory tract irritation
- Skin** : Harmful if absorbed through skin. Causes skin irritation
- Eyes** : Causes eye irritation.
- Ingestion** : Harmful if swallowed.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

- Formula** :  $C_2H_3N$
- Molecular Weight** : 41.05 g/mol
- CAS-No.** : 75-05-8
- EC-No.** : 200-835-2
- Purity** : >98%

**4. FIRST AIDS MEASURES**

- General Advice** : Consult a physician. Show this SDS to the physician in attendance. Move out of dangerous area.
- Inhalation** : If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
- Skin Contact** : Wash off with soap and plenty of water. Consult a physician.
- Eye Contact** : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- Ingestion** : Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**5. FIREFIGHTING MEASURES**

- Condition of Flammability** : Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from

	heat/sparks/open flame/hot surface. No smoking.
<b>Suitable Extinguishing Media</b>	: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide
<b>Specific Hazards Arising from the Chemical</b>	: No data available
<b>Special Protective Equipment for Firefighters</b>	: Wear self contained breathing apparatus for fire fighting if necessary.
<b>Hazardous Combustion Products</b>	: Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx)
<b>Explosion Data – Sensitivity to Mechanical Impact</b>	: No data available
<b>Explosion Data – Sensitivity to Static Discharge</b>	: No data available
<b>Further Information</b>	: Use water spray to cool unopened containers.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	: Use personal protective equipment. Avoid breathing vapors, 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.
<b>Environmental Precautions</b>	: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
<b>Methods and Materials for Containment and Cleaning Up</b>	: Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

## 7. HANDLING AND STORAGE

<b>Precautions for Safe Handling</b>	: Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.
<b>Conditions for Safe Storage</b>	: 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.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Personal Protective Equipment Respiratory</b>	: 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).
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<b>Hand</b>	:	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.
<b>Eyes</b>	:	Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
<b>Skin and Body</b>	:	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.
<b>Hygiene Measures</b>	:	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
<b>Engineering Controls</b>	:	Use mechanical exhaust or laboratory fumehood to avoid exposure.
<b>Workplace Control Parameters</b>	:	No data available

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Form</b>	:	Clear, liquid
<b>Colour</b>	:	Colourless
<b>pH</b>	:	No data available
<b>Melting Point/Freezing Point</b>	:	-48 °C (-54 °F)
<b>Boiling Point</b>	:	81 - 82 °C (178 - 180 °F)
<b>Flash Point</b>	:	2.0 °C (35.6 °F) - closed cup
<b>Ignition Temperature</b>	:	523 °C (973 °F) -
<b>Autoignition Temperature</b>	:	523.0 °C (973.4 °F)
<b>Lower Explosion Limit</b>	:	4.4 %(V)
<b>Upper Explosion Limit</b>	:	16 %(V)
<b>Vapour Pressure</b>	:	73.18 hPa (54.89 mmHg) at 15 °C (59 °F) 119.81 hPa (89.86 mmHg) at 25 °C (77 °F) 413.23 hPa (309.95 mmHg) at 55 °C (131 °F) 94.51 hPa (70.89 mmHg) at 20 °C (68 °)
<b>Density</b>	:	0.786 g/mL at 25 °C (77 °F)
<b>Water Solubility</b>	:	completely soluble
<b>Partition Coefficient (n-octanol/water)</b>	:	log Pow: -0.34
<b>Relative Vapour Density</b>	:	No data available
<b>Odour</b>	:	No data available
<b>Odour Threshold</b>	:	No data available
<b>Evaporation Rate</b>	:	5.8

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	:	Stable under recommended storage conditions
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<b>Possibility of Hazardous Reactions</b>	: Vapours may form explosive mixture with air.
<b>Conditions to Avoid</b>	: Heat, flames and sparks. Extremes of temperature and direct sunlight.
<b>Materials to Avoid</b>	: acids, Bases, Oxidizing agents, Reducing agents, Alkali metals
<b>Hazardous Decomposition Products</b>	: Other decomposition products - no data available Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx)

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

**Oral LD<sub>50</sub>** : LD50 Oral - rat - 2,460 mg/kg

**Inhalation LC<sub>50</sub>** : LC50 Inhalation - rat - 8 h - 7551 ppm

Remarks: Behavioral: Altered sleep time (including change in righting reflex). Behavioral: Convulsions or effect on seizure threshold. Blood: Hemorrhage.

**Dermal LD<sub>50</sub>** : LD50 Dermal - rabbit - 2,000 mg/kg

**Other Information** : No data available

### Skin Corrosion/Irritation

Skin - rabbit - Mild skin irritation

### Serious Eye Damage/Eye Irritation

Eyes - rabbit - Irritating to eyes.

### Respiratory or Skin Sensitisation

Did not cause sensitization on laboratory animals.

### Germ Cell Mutagenicity

No data available

### Carcinogenicity

**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

**ACGIH** : No data available

### Reproductive Toxicity

No data available

### Teratogenicity

No data available

### Specific Target Organ Toxicity (Single Exposure)

No data available

### Specific target Organ Toxicity (Repeated Exposure)

No data available

### Aspiration Hazard

No data available

### Signs and Symptoms of Exposure

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

### Synergistic Effects

No data available

### Additional Information

No data available

## 12. ECOLOGICAL INFORMATION

### Toxicity

**Toxicity to Fish** : LC50 - Pimephales promelas (fathead minnow) - 1,640.00 mg/L - 96 h

**Toxicity to Daphnia and other Aquatic Invertebrates** : EC50 - Daphnia magna (Water flea) - 3,600.00 mg/lL- 48 h

NOEC - Daphnia magna (Water flea) - 640 mg/l - 14 d

**Toxicity to Algae** : No data available

### Persistence and Degradability

**Biodegradability** : No data available

### Bioaccumulative Potential

No data available

### Mobility in Soil

No data available

### PBT and vPvB Assessment

No data available

### Other Adverse Effects

No data available

## 13. DISPOSAL CONSIDERATIONS

### 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. Contact a licensed professional waste disposal service to dispose of this material.

### Contaminated Packaging

Dispose of as unused product.

## 14. TRANSPORT INFORMATION

### DOT (US)

UN number: 1648 Class: 3 Packing group: II

Proper shipping name: Acetonitrile Reportable Quantity (RQ): 5000 lbs Marine pollutant: No

Poison Inhalation Hazard: No

### IMDG

UN number: 1648 Class: 3 Packing group: II EMS-No: F-E, S-D

Proper shipping name: ACETONITRILE Marine pollutant: No

### IATA

UN number: 1648 Class: 3 Packing group: II

Proper shipping name: Acetonitrile

## 15. REGULATORY INFORMATION

### WHMIS Classification



**B2**  
**D2B**

Flammable liquid  
Toxic Material Causing Other Toxic Effects

Flammable liquid  
Moderate eye irritant

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

## 16. OTHER INFORMATION

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