

# SAFETY DATA SHEET

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## SECTION 1) CHEMICAL PRODUCT AND SUPPLIER'S IDENTIFICATION

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**CAS Number:** 872-50-4  
**Product Name:** n-Methyl Pyrrolidone  
**Revision Date:** Apr 03, 2019 **Date Printed:** Apr 03, 2019  
**Version:** 1.0 **Supersedes Date:** N.A.  
**Manufacturer's Name:** Thames River Chemical Corp.  
**Address:** 5230 Harvester Road Burlington, ON, CA, L7L 4X4  
**Emergency Phone:** CHEMTREC (800) 424-9300  
**Information Phone Number:** 905-681-5353  
**Fax:** 905-681-5377  
**Product/Recommended Uses:** For laboratory or industrial use only.

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## SECTION 2) HAZARDS IDENTIFICATION

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### Classification

Eye Irritation - Category 2A  
Flammable Liquids - Category 4  
Reproductive Toxicity - Category 1  
Skin Irritation - Category 2  
Specific Target Organ Toxicity -Single Exposure (Narcotic Effects) - Category 3  
Specific Target Organ Toxicity -Single Exposure (Respiratory Tract Irritation) - Category 3

### Pictograms



### Signal Word

Danger

### Hazard Statements - Health

Causes serious eye irritation  
May damage fertility or the unborn child.  
Causes skin irritation  
May cause drowsiness or dizziness  
May cause respiratory irritation

### Hazard Statements - Physical

Combustible Liquid

### Precautionary Statements - General

If medical advice is needed, have product container or label at hand.  
Keep out of reach of children.

Read label before use.

#### Precautionary Statements - Prevention

Wash/Wash hands thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Avoid breathing dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Keep container tightly closed.

#### Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

In case of fire: Use carbon dioxide, alcohol foam, water spray or dry chemical to extinguish.

IF exposed or concerned: Get medical advice/attention.

IF ON SKIN: Wash with plenty of water and soap.

Specific treatment (see first-aid on the SDS).

If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing. And wash it before reuse.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER or doctor, if you feel unwell.

#### Precautionary Statements - Storage

Store in a well-ventilated place.

Store locked up.

Store in a well-ventilated place. Store locked up.

#### Precautionary Statements - Disposal

Dispose of contents/container in accordance with local/national/international regulation. Waste management should be in full compliance with national, regional and local laws.

#### Physical Hazards Not Otherwise Classified

No Data Available

#### Health Hazards Not Otherwise Classified

No Data Available

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### SECTION 3) COMPOSITION/INFORMATION ON INGREDIENTS

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CAS	Chemical Name	% By Weight
0000872-50-4	N-METHYL-2-PYRROLIDONE	98% - 100%

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality or to reflect batch to batch variation.

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### SECTION 4) FIRST-AID MEASURES

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#### Inhalation

Remove source of exposure or move person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

#### Eye Contact

Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for a duration of 15-20 minutes or until medical aid is available. If irritation occurs, seek medical attention.

**Skin Contact**

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Rinse/wash with lukewarm, gently flowing water and mild soap for 5 minutes or until product is removed. If skin irritation occurs or you feel unwell: Get medical advice/attention. Wash contaminated clothing before re-use or discard.

**Ingestion**

Rinse mouth. Do NOT induce vomiting. If vomiting occurs naturally, lie on your side, in the recovery position. Get medical advice/attention.

**Most Important Symptoms and Effects, Both Acute and Delayed**

No Data Available

**Indication of Any Immediate Medical Attention and Special Treatment Needed**

No Data Available

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**SECTION 5) FIRE-FIGHTING MEASURES**

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**Suitable Extinguishing Media**

SMALL FIRE: Use dry chemical, CO<sub>2</sub>, water spray or regular foam. LARGE FIRE: Use water spray, water fog or regular foam. Do not use straight streams.

**Unsuitable Extinguishing Media**

Do not use straight stream of water.

**Specific Hazards in Case of Fire**

Fire will produce irritating gases.

**Fire-fighting Procedures**

When heated above the flash point, releases flammable vapors. When mixed with air and exposed to ignition source, vapors can burn in open or explode if confined. Vapors may be heavier than air. May travel long distances along the ground before igniting and flashing back to vapor source. Fine sprays/mists may be combustible at temperatures below normal flash point. Move containers from fire area if you can do it without risk. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. Always stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

**Special Protective Actions**

Wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

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**SECTION 6) ACCIDENTAL RELEASE MEASURES**

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**Emergency Procedure**

Isolate hazard area and keep unauthorized personnel away. Stay uphill and/or upstream. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing. Ventilate closed spaces before entering.

**Recommended Equipment**

Wear chemical protective clothing.

**Personal Precautions**

Avoid breathing vapor or mist. Avoid contact with skin, eye or clothing.

**Environmental Precautions**

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers. Dike far ahead of liquid spill for later disposal.

**Methods and Materials for Containment and Cleaning up**

Absorb Liquids in vermiculite, dry sand, earth, or similar inert material and deposit in sealed containers for disposal.

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## SECTION 7) HANDLING AND STORAGE

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### General

Handle empty containers with care – residue may be combustible and burn if exposed to heat / sparks / open flame. In addition to the fire /explosion hazard, residual vapor and liquid may also be toxic. Keep container tightly closed when not in use. Keep away from heat, sparks, open flame, or any ignition source. Isolate, vent, drain, wash and purge systems or equipment before maintenance or repair. Wear recommended personal protective equipment. Observe precautions pertaining to confined space entry.

### Ventilation Requirements

Use only with adequate ventilation to control air contaminants to their exposure limits.

### Storage Room Requirements

Mild or stainless steel. Store away from heat, sparks, open flames, strong oxidizing agents and direct sunlight.

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## SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

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### Eye protection

Wear indirect-vent, impact and splash resistant goggles when working with liquids

### Skin Protection

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Respiratory Protection

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 should be followed. Check with respiratory protective equipment suppliers.

### Appropriate Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Chemical Name	CANsmg	CANsppm	CANtmg	CANtppm	OSHA STEL (mg/m3)	OSHA STEL (ppm)	OSHA TWA (mg/m3)	OSHA TWA (ppm)
No applicable chemical	-	-	-	-	-	-	-	-

Chemical Name	OSHA Carcinogen	OSHA Tables (Z1, Z2, Z3)	OSHA Skin designation	ACGIH STEL (mg/m3)	ACGIH STEL (ppm)	ACGIH TWA (mg/m3)	ACGIH TWA (ppm)	ACGIH TLV Basis
No applicable chemical	-	-	-	-	-	-	-	-

Chemical Name	ACGIH Carcinogen	ACGIH Notations
No applicable chemical	-	-

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## SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

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### Physical and Chemical Properties

Density

8.60 lb/gal

Specific Gravity	1.03
Appearance	liquid, clear, colourless to slightly yellow
Odor Description	amine-like
Odor Threshold	N/A
pH	7 - 8
Melting/Freezing Point	-25 °C
Low Boiling Point	202 °C
High Boiling Point	N/A
Flash Point	86 °C
Vapor Pressure	<0.3 mmHg
Vapor Density	3.4 (air = 1)
Evaporation Rate	0.03 (butyl acetate = 1)
Upper Explosion Level	N/A
Lower Explosion Level	N/A
Water Solubility	complete
Coefficient Water/Oil	N/A
Viscosity	No Data Available

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## SECTION 10) STABILITY AND REACTIVITY

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### Reactivity

No Data Available

### Stability

Stable under normal storage and handling conditions.

### Conditions to Avoid

Severe reducing conditions. Contact with moisture, this is hygroscopic (ie absorbs water from the air). Heat, sparks, open flame, other ignition sources, and oxidizing conditions.

### Hazardous Reactions/Polymerization

Hazardous polymerization will not occur.

### Incompatible Materials

Strong bases, acids, oxidizing and reducing agents.

### Hazardous Decomposition Products

Carbon monoxide and nitrogen oxide fumes emitted when heated to decomposition.

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## SECTION 11) TOXICOLOGICAL INFORMATION

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### Likely Route of Exposure

Inhalation, ingestion, skin absorption

### Acute Toxicity

No Data Available

ACUTE TOXICITY – Lethal Doses:

LC50 (Inhl) rat: >5.1 MG/L 4 Hours (Aerosol)

LD50 (Oral) rat: >4150 MG/KG BWT

LD50 (Skin) rat: >5,000 MG/KG, <10,000 MG/KG

### Aspiration Hazard

No Data Available

**Carcinogenicity**

No Data Available

**Germ Cell Mutagenicity**

No Data Available

**Reproductive Toxicity**

May damage fertility or the unborn child.

**Respiratory/Skin Sensitization**

No Data Available

**Serious Eye Damage/Irritation**

Causes serious eye irritation

0000872-50-4 N-METHYL-2-PYRROLIDONE

Moderately irritating.

**Skin Corrosion/Irritation**

Causes skin irritation

0000872-50-4 N-METHYL-2-PYRROLIDONE

Slightly irritating.

**Specific Target Organ Toxicity - Repeated Exposure**

No Data Available

**Specific Target Organ Toxicity - Single Exposure**

May cause drowsiness or dizziness

May cause respiratory irritation

0000872-50-4 N-METHYL-2-PYRROLIDONE

The substance is irritating to the eyes and respiratory tract.

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**SECTION 12) ECOLOGICAL INFORMATION**

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**Toxicity**

No Data Available

**Mobility in Soil**

No Data Available

**Bio-accumulative Potential**

No Data Available

**Persistence and Degradability**

No Data Available

**Other Adverse Effects**

No Data Available

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**SECTION 13) DISPOSAL CONSIDERATIONS**

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**Waste Disposal**

Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. It is the responsibility of the user of the product to determine at the time of disposal whether the product meets local criteria for hazardous waste. Waste management should be in full compliance with national, provincial and local laws.

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## SECTION 14) TRANSPORT INFORMATION

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### Transport Canada Information

UN number: Not Regulated

Hazard class: N/A

Proper shipping name: N/A

Packaging group: N/A

### U.S. DOT Information

Not regulated by U.S. Department of Transportation (USDOT) when shipped in packages of 119 gallons or less

UN number: NA1993

Hazard class: 8

Proper shipping name: Combustible liquid, N.O.S. (N-Methyl Pyrrolidinone)

Packaging group: III

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## SECTION 15) REGULATORY INFORMATION

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CAS	Chemical Name	% By Weight	Regulation List
0000872-50-4	N-METHYL-2-PYRROLIDONE	98% - 100%	DSL,TSCA,REACH_SVHC - REACH_Substances of Very High Concern,CA_Prop65 - California Proposition 65,EU_EC_Inventory

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## SECTION 16) OTHER INFORMATION

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### Glossary

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG- Canadian Transportation of Dangerous Goods; CANsmg or CANspmm - Canadian Short Term Exposure Level in mg/L or in ppm; CANtmg or CANtppm - Canadian Time Weighted Average in mg/L or in ppm; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center(US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self Contained Breathing Apparatus; STEL-Short Term Exposure Limit; TCEQ Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

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First Edition.

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