



MATERIAL SAFETY DATA SHEET

SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: N-METHYLPYRROLIDONE

Company: Recochem Inc. ABN: 69 010 485 999
Address : 1809 Lytton Road, Lytton, Queensland 4178
Phone: (07) 3308 5200 Fax: (07) 3308 5201
Emergency Telephone Number: (07) 3308 5200 Day, After Hours 1300 131 001

Other Names: NMP, N-Methyl-2-Pyrrolidone
Manufacturer's Product Code: 16893
Recommended Use: Solvent, raw material for chemical industry

SECTION 2 HAZARDS IDENTIFICATION

**CLASSIFIED AS HAZARDOUS ACCORDING TO CRITERIA OF WORKSAFE AUSTRALIA
NOT A DANGEROUS GOODS ACCORDING TO THE CRITERIA OF THE ADG CODE**

Symbols: Xi - Irritant
T - Toxic
Risk Phrases: R36/37/38 - Irritating to eyes, respiratory system and skin
R61 - May cause harm to the unborn child
Safety Phrases: S2 - Keep out of the reach of children
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show label where possible)
S53 - Avoid exposure-obtain special instructions before use

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients

<i>Chemical Entity</i>	<i>CAS Number</i>	<i>Proportion (%)</i>
N-Methylpyrrolidone	872-50-4	> 99

SECTION 4 FIRST AID MEASURES

FIRST AID TREATMENT

Swallowed: If swallowed, do NOT induce vomiting. Transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.
Eye: If in eyes, hold eyes open, flood with water for at least 15 minutes. Seek immediate medical assistance.
Skin: If skin contact occurs, remove contaminated clothing and wash skin thoroughly with water and follow by washing with soap if available. If redness, swelling, pain and/or blisters occur, transport to the nearest medical facility for treatment.
Inhaled: Keep victim calm and remove to fresh air if safe to do so. Obtain medical treatment immediately. Remove any contaminated clothing.

First Aid facilities: Potable water should be available to rinse eyes or skin. Provide eye baths and safety showers.

Advice to Doctor: Treat symptomatically.

Additional Information: None available.

SECTION 5 FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Foam, water spray or fog. Dry chemical powder, carbon dioxide. Do not use water in a jet.

Hazards from combustion products: Oxides of carbon and nitrogen may be evolved if incomplete combustion occurs.

Product: N-METHYLPYRROLIDONE

Precautions for Fire Fighters and Special Protective Equipment: Wear full protective clothing and self-contained breathing apparatus.

Additional Information: Combustible liquid.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Observe all local and national regulations.

Spills and Disposal: Avoid contact with spilled or released material. Shut off leaks, if possible without personal risks. Remove all sources of ignition in the surrounding area. Increase ventilation. Clear area of all unprotected personnel. Use appropriate containment to avoid environmental contamination. Prevent from spreading and entering waterway using sand, earth or other appropriate barriers. Take precautionary measure against static discharge. Ensure electrical continuity by bonding and earthing all equipment.

Methods and Materials for Containment and Clean Up Procedures: For small spills (<1 drum), transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal. Allow any residues to evaporate or use an appropriate absorbent material and dispose of safely. For larger spills (> 1 drum), transfer by means such as a vacuum truck to a salvage tank for recovery or disposal. Do not flush residues with water. Retain as contaminated waste. Allow any residues to evaporate or use an appropriate absorbent material and dispose of safely.

SECTION 7 HANDLING AND STORAGE

Precautions for Safe Handling and Storage: Avoid breathing of or contact with material. Use in well ventilated areas. Wash thoroughly after handling. Avoid contact with skin and eyes and clothing. Handle open containers in well ventilated area. Ensure that the workplace is ventilated such that the Occupational Exposure limit is not exceeded. Avoid contact with skin, eyes, and clothing. Do not empty into drains. Do not eat, drink or smoke in contaminated areas. Before eating, drinking or smoking, remove contaminated clothing and wash hands. Do not store near strong oxidants.

Flammability: Combustible liquid.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Standards: Worksafe Australia has set an exposure standard for N-Methylpyrrolidone of 103mg/ m³ (25ppm) TWA (8hr), 309mg/ m³ (75ppm) STEL.

Biological Limit Values: No biological limit allocated.

Personal Protective Equipment:

Respiratory Protection: If work practices do not maintain airborne level below the exposure standard, use appropriate respiratory protection equipment. When using respirators, select an appropriate combination of mask and filter and select a filter for organic gases and vapours (boiling point > 65 Deg C). Respirators should comply with AS1716 or an equivalent approved by a state/territory authority.

Hand Protection: Use solvent resistant gloves (nitrile for longer term protection or PVC and neoprene for incidental splashes).

Eye Protection: Wear safety goggles.

Protective Clothing: Use chemical resistant glove/gauntlets, boots and apron.

Engineering Controls: Ensure that adequate ventilation is provided. Maintain air concentrations below recommended exposure standards. Avoid generating and inhaling mists. Keep containers closed when not in use.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DESCRIPTION / CHEMICAL PROPERTIES

Appearance	Colourless Liquid
Odour	Mild amine aroma
pH:	8.5 – 10 (10% solution in water)
Vapour Pressure (mmHg @ 20°C):	0.27
Vapour Density (air = 1)	N/A
Boiling Point (°C):	204
Freezing/Melting Point (°C):	-24
Solubility in Water	Miscible in water
Specific Gravity (g/ml @ 15°C):	1.027
Flashpoint (°C):	91 (Closed cup)
Flammability Limits (%):	1.3 – 9.5
Auto Ignition Temperature (°C):	Typical 245

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Percent Volatiles

N/A

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: Stable under normal conditions of use.

Conditions to Avoid: Avoid heat, sparks, open flames and other ignition sources.

Incompatible Materials: Strong oxidising agents, strong reducing agents.

Hazardous Decomposition Products: Thermal decomposition is highly dependant on conditions. A complex mixture of airborne solids, liquids, gases, including carbon monoxide, carbon dioxide and other organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

SECTION 11 TOXICOLOGICAL INFORMATION

HEALTH EFFECTS

Acute:

Swallowed: Expected to be of low toxicity: LD50>3600mg/kg, Rat.

Eye: Irritating to eyes.

Skin: Irritating to skin. Can be absorbed through skin.

Inhaled: Low toxicity: inhalation of vapours or mists may cause irritation to the respiratory system.

Chronic: None.

SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity:

Bluegill: LC50 = 832mg/l

Fathead Minnow: LC50 = 1072mg/l

Trout: LC50 = 3048mg/l

Mobility: Soluble in water, highly mobile and may contaminate groundwater.

Persistence/degradability: Biodegradable (Warburg Respirometry method).

Bioaccumulation: No information available.

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal Methods: Ensure waste disposal conforms to local waste disposal regulations.

SECTION 14 TRANSPORT INFORMATION

UN Number:	N/A	Proper Shipping Name:	N/A
Class:	C1	Subsidiary Risk:	N/A
Packing Group:	N/A	Hazchem Code:	N/A
Special Precautions for User:	None		

SECTION 15 REGULATORY INFORMATION

Poisons Schedule : 6

AICS : Listed

Dangerous Goods Initial Emergency Response Guide (SAA/SNZ HB76:2010) : 14

SECTION 16 OTHER INFORMATION

Further Information may be obtained by contacting Recochem on (07) 3308 5200

The information sourced for the preparation of this document was correct and complete at the time of writing to the best of the writer's knowledge. The document represents the commitment to the company's responsibilities surrounding the supply of this product, undertaken in good faith. This document should be taken as a safety guide for the product and its recommended uses but is in no way an absolute authority. Please consult the relevant legislation and regulations governing the use and storage of this type of product.
