1. IDENTIFICATION

Product Name: 1-METHYL-2-PYRROLIDINONE
Synonyms: N-Methylpyrrolidinone; N-Methyl-2-pyrrolidinone; NMP
Formula and Formula Weight: C5H9NO  99.13
Integra numbers beginning with: M757.19; M757.50; M757.10
Recommended Use: Commercial/industrial use
Restrictions on Use: No information available

INTEGRA Chemical Company
24 Hour Emergency Response: CHEMTREC 800-424-9300 (Outside USA 703-527-3887)
1216 6th Ave N
Kent WA 98032
Phone: 253-479-7000

2. HAZARDS IDENTIFICATION

OSHA Classification: Hazard Category: Hazard Statement:
Skin Corrosion/Irritation 2 Causes skin irritation.
Eye Damage/Irritation 2A Causes serious eye irritation.
Toxic to Reproduction 1B May damage fertility or the unborn child.
Specific Target Organ Toxicity (single exposure) 3 May cause respiratory irritation.
Flammable Liquids 4 Combustible liquid.

Signal Word: DANGER

Precautionary Statements

Prevention:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from flames and hot surfaces. – No smoking.
Avoid breathing dust, fume, gas, mist, vapors, spray.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves, protective clothing, eye protection, face protection.

Response
If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice, attention.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
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.
If exposed or concerned: Get medical advice, attention.
Specific treatment (see first aid section on this label)
Take off contaminated clothing and wash it before reuse.
In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide to extinguish.

Storage
Store locked up in a well ventilated place. Keep container tightly closed. Keep cool.

Disposal
Dispose of contents, container in accordance with all governmental regulations.

Hazards Not Otherwise Classified: No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>Synonyms</th>
<th>CAS #</th>
<th>% Weight</th>
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</thead>
<tbody>
<tr>
<td>1-Methyl-2-pyrrolidinone</td>
<td>N-Methylpyrrolidinone; N-Methyl-2-pyrrolidinone; NMP</td>
<td>00872-50-4</td>
<td>100</td>
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4. FIRST AID MEASURES

Inhalation: Remove person to fresh air and keep comfortable for breathing.
Eye Contact: Flush eyes with plenty of water. Remove contact lenses, if present and easy to do. If irritation persists, seek medical attention.
Skin Contact: Wash with soap and water. Seek medical attention if irritation develops.
Ingestion: Rinse mouth and give victim large quantities of water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.
5. PHYSICAL AND CHEMICAL PROPERTIES

- Vapor Pressure: 0.3 mm Hg @20°C
- Odor: Amine-like odor
- Odor Threshold: Not available
- pH: 7.7
- Melting/Freezing Point: -24 °C
- Initial Boiling Point and Boiling Range: 202 °C
- Flash Point: 96 °C
- Evaporation Rate: Lower: 1.3
- Flammable or Explosive
  - Limits (% by volume in air)
    - Upper: 9.5
    - Lower: 1.3
- Vapor Pressure: 0.3 mm Hg @20°C
- Vapor Density: 3.4
- Relative Density: 1.03 Water=1
- Solubility: Miscible with water
- Partition Coefficient: n-octanol/water Not available
- Auto-Ignition Temperature: 518 °F
- Decomposition Temperature: Not available
- Viscosity: Not available

5. FIRE-FIGHTING MEASURES

- Extinguishing Media: Use dry chemicals, carbon dioxide, water spray or alcohol-resistant foam.
- Special Equipment and Precautions: Use water to cool nearby containers and structures. Wear full protective equipment, including suitable respiratory protection.
- Specific Hazards: Vapors may flow along surfaces to distant ignition sources and flash back.

6. ACCIDENTAL RELEASE MEASURES

- Spill Procedures: Remove all potential ignition sources. Prevent spread of spill. Wear full protective equipment including suitable respiratory protection. Absorb with sand or inert material. Place into suitable container for disposal.

7. HANDLING AND STORAGE

- Storage and Handling: Store locked up in a cool, dry, well-ventilated area away from incompatible materials. Keep containers tightly closed and protect them from physical damage. Protect from direct light and minimize contact with air.
  - Obtain special instructions before use.
  - Do not handle until all safety precautions have been read and understood.
  - Keep away from flames and hot surfaces. – No smoking.
  - Avoid breathing dust, fume, gas, mist, vapors, spray.
  - Wash thoroughly after handling.
  - Use only outdoors or in a well-ventilated area.
  - Wear protective gloves, protective clothing, eye protection, face protection.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

- OSHA & ACGIH Exposure Limits: None identified
- Engineering Controls: Use adequate general or local exhaust ventilation to keep fume and/or dust levels as low as possible.
- Respiratory Protection: None required where adequate ventilation conditions exist. If airborne concentrations are high a NIOSH approved chemical cartridge respirator with an organic vapor cartridge is recommended.
- Skin/Eye Protective Equipment: Safety goggles, protective clothing and gloves appropriate for the risk of exposure.
- Facilities storing or utilizing this material should have readily accessible eyewash stations and safety showers.
- Select respirators and other safety equipment in accordance with regulations and based upon the particular conditions of use and risk of exposure. Always use safe chemical-handling and good industrial hygiene practices.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Apearance: Clear liquid
- Odor: Amine-like odor
- Odor Threshold: Not available
- pH: 7.7
- Melting/Freezing Point: -24 °C
- Initial Boiling Point and Boiling Range: 202 °C
- Flash Point: 96 °C
- Evaporation Rate: Not available
- Flammability: Combustible liquid
- Flammable or Explosive
  - Limits (% by volume in air)
    - Upper: 9.5
    - Lower: 1.3
- Vapor Pressure: 0.3 mm Hg @20°C
- Vapor Density: 3.4
- Relative Density: 1.03 Water=1
- Solubility: Miscible with water
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10. STABILITY AND REACTIVITY

- Reactivity: No information available
- Stability: Stable
- Possibility of Hazardous Reactions: Hazardous polymerization will not occur
- Conditions to Avoid: Heat, sparks and open flame.
- Incompatibles: Incompatible with strong acids and strong oxidizers. Reducing agents.
- Decomposition Products: Oxides of carbon.

11. TOXICOLOGICAL INFORMATION

- Effects of Over Exposure:
  - Inhalation: Inhalation may irritate the nose, throat and upper respiratory tract.
15. REGULATORY INFORMATION

1-Methyl-2-pyrrolidinone is listed in the TSCA inventory and in SARA 313.

16. OTHER INFORMATION

OSHA SDS #: 25948 rev 101 3/27/2015

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***** END OF SDS *****