

# SAFETY DATA SHEET



This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard (29 CFR 1910.1200) and Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR)

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Revision Number 2

## 1. Identification

### Product identifier

Product Name 1-Methyl-2-pyrrolidinone

### Other means of identification

Product Code(s) PN000798

### Recommended use of the chemical and restrictions on use

Recommended use Laboratory reagent  
For professional use only

Restrictions on use No information available.

### Details of the supplier of the safety data sheet

#### Supplier Address

Associates of Cape Cod, Inc.  
124 Bernard E. Saint Jean Drive  
East Falmouth, MA 02536-4445  
508 540 3444

E-mail mbedford@acciusa.com

### Emergency telephone number

Emergency Telephone CHEMTREC: +1-703-527-3887 (INTERNATIONAL)  
1-800-424-9300 (NORTH AMERICA)

## 2. Hazard(s) identification

### Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Reproductive toxicity	Category 1B
Specific target organ toxicity (single exposure)	Category 3

### Label elements

#### Danger

#### Hazard statements

Causes skin irritation  
Causes serious eye irritation  
May damage fertility or the unborn child

May cause respiratory irritation



#### Precautionary Statements - Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Wash face, hands and any exposed skin thoroughly after handling. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area.

#### Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention. Specific treatment (see supplemental first aid instructions on this label).

#### Eyes

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.

#### Skin

IF ON SKIN: Wash with plenty of water and soap. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

#### Inhalation

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

#### Precautionary Statements - Storage

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

#### Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant.

#### Other information

No information available.

### 3. Composition/information on ingredients

#### Substance

Not applicable.

#### Mixture

Chemical name	CAS No	Weight-%	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
1-Methyl-2-pyrrolidone	872-50-4	17-19	-	-

### 4. First-aid measures

#### Description of first aid measures

#### General advice

Show this safety data sheet to the doctor in attendance.

#### Inhalation

Remove to fresh air. IF exposed or concerned: Get medical advice/attention. Get medical attention immediately if symptoms occur.

<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. Do not rub affected area.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.
<b>Self-protection of the first aider</b>	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

#### **Most important symptoms and effects, both acute and delayed**

**Symptoms** Burning sensation.

#### **Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

### **5. Fire-fighting measures**

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Unsuitable extinguishing media</b>	None known based on information supplied.
<b>Specific hazards arising from the chemical</b>	Thermal decomposition can lead to release of irritating gases and vapors.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	None.
<b>Sensitivity to static discharge</b>	None.
<b>Special protective equipment for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

### **6. Accidental release measures**

#### **Personal precautions, protective equipment and emergency procedures**

<b>Personal precautions</b>	Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing.
<b>Other information</b>	Refer to protective measures listed in Sections 7 and 8.

#### **Methods and material for containment and cleaning up**

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

## 7. Handling and storage

### Precautions for safe handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. Take off contaminated clothing and wash before reuse.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Store locked up. Keep containers tightly closed in a dry, cool and well-ventilated place.

## 8. Exposure controls/personal protection

### Control parameters

#### Exposure Limits

Chemical name	Alberta	British Columbia	Ontario	Quebec
1-Methyl-2-pyrrolidone 872-50-4			TWA: 400 mg/m <sup>3</sup>	

### Appropriate engineering controls

**Engineering controls** Showers  
Eyewash stations  
Ventilation systems.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** Goggles.

**Hand protection** Wear suitable gloves. Impervious gloves.

**Skin and body protection** Wear suitable protective clothing. Long sleeved clothing.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations** Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

#### Appearance

**Physical state** Liquid  
**Color** Colorless  
**Odor** No information available  
**Odor threshold** No information available

#### Property

**pH** No data available  
**Melting point / freezing point** No data available

#### Remarks • Method

None known  
None known

<b>Boiling point / boiling range</b>	No data available	None known
<b>Flash point</b>	No data available	None known
<b>Evaporation rate</b>	No data available	None known
<b>Flammability (solid, gas)</b>	No data available	None known
<b>Flammability Limit in Air</b>		None known
<b>Upper flammability or explosive limits</b>	No data available	
<b>Lower flammability or explosive limits</b>	No data available	
<b>Vapor pressure</b>	No data available	None known
<b>Vapor density</b>	No data available	None known
<b>Relative density</b>	No data available	None known
<b>Water solubility</b>	No data available	None known
<b>Solubility(ies)</b>	No data available	None known
<b>Partition coefficient</b>	No data available	None known
<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>	No data available	None known
<b>Kinematic viscosity</b>	No data available	None known
<b>Dynamic viscosity</b>	No data available	None known

**Other information**

<b>Explosive properties</b>	No information available.
<b>Oxidizing properties</b>	No information available.
<b>Softening point</b>	No information available.
<b>Molecular weight</b>	No information available.
<b>VOC Content (%)</b>	No information available.
<b>Liquid Density</b>	No information available.
<b>Bulk density</b>	No information available.

**10. Stability and reactivity**

<b>Reactivity</b>	None under normal use conditions.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	None under normal processing.
<b>Conditions to avoid</b>	None known based on information supplied.
<b>Incompatible materials</b>	Strong acids. Strong bases. Strong oxidizing agents.
<b>Hazardous decomposition products</b>	None known based on information supplied.

**11. Toxicological information****Information on likely routes of exposure****Product Information**

<b>Inhalation</b>	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available. Irritating to eyes. (based on components). Causes serious eye irritation.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available. Causes skin irritation.

(based on components).

**Ingestion**

Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

**Symptoms related to the physical, chemical and toxicological characteristics****Symptoms**

Redness. May cause redness and tearing of the eyes. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

**Acute toxicity****Numerical measures of toxicity**

No information available

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
1-Methyl-2-pyrrolidone	= 3914 mg/kg ( Rat )	= 8 g/kg ( Rabbit )	> 5.1 mg/L ( Rat ) 4 h

**Delayed and immediate effects as well as chronic effects from short and long-term exposure****Skin corrosion/irritation**

Classification based on data available for ingredients. Irritating to skin.

**Serious eye damage/eye irritation**

Classification based on data available for ingredients. Causes serious eye irritation.

**Respiratory or skin sensitization**

No information available.

**Germ cell mutagenicity**

No information available.

**Carcinogenicity**

No information available.

**Reproductive toxicity**

Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. May damage fertility or the unborn child.

**STOT - single exposure**

No information available.

**STOT - repeated exposure**

No information available.

**Aspiration hazard**

No information available.

**12. Ecological information****Ecotoxicity**

The environmental impact of this product has not been fully investigated.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
1-Methyl-2-pyrrolidone 872-50-4	EC50: >500mg/L (72h, Desmodesmus subspicatus)	LC50: =832mg/L (96h, Lepomis macrochirus) LC50: =1400mg/L (96h, Poecilia reticulata) LC50: =1072mg/L (96h, Pimephales promelas)	-	EC50: =4897mg/L (48h, Daphnia magna)

**Persistence and degradability**

No information available.

**Bioaccumulation** There is no data for this product.

#### Component Information

Chemical name	Partition coefficient
1-Methyl-2-pyrrolidone 872-50-4	-0.46

**Mobility in soil** No information available.

**Other adverse effects** No information available.

### 13. Disposal considerations

#### Waste treatment methods

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

### 14. Transport information

**DOT** Not regulated

**TDG** Not regulated

**MEX** Not regulated

**IATA** Not regulated

**IMDG** Not regulated

### 15. Regulatory information

#### Safety, health and environmental regulations/legislation specific for the substance or mixture

#### International Regulations

**The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable

**The Stockholm Convention on Persistent Organic Pollutants** Not applicable

**The Rotterdam Convention** Not applicable

#### International Inventories

**TSCA** Contact supplier for inventory compliance status.

**DSL/NDSL** Contact supplier for inventory compliance status.

#### **Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**US Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %
1-Methyl-2-pyrrolidone - 872-50-4	1.0

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**US State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals:

Chemical name	California Proposition 65
1-Methyl-2-pyrrolidone - 872-50-4	Developmental

**U.S. State Right-to-Know Regulations****US State Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
1-Methyl-2-pyrrolidone 872-50-4	X	X	X

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. Other information**

<b><u>NFPA</u></b>	Health hazards 2	Flammability 0	Instability 0	Physical and chemical properties -
<b><u>HMIS</u></b>	Health hazards 2 *	Flammability 0	Physical hazards 0	Personal protection X

**Key or legend to abbreviations and acronyms used in the safety data sheet****Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

**Key literature references and sources for data used to compile the SDS**



U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
EPA (Environmental Protection Agency)  
Acute Exposure Guideline Level(s) (AEGL(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
Japan GHS Classification  
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

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**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**