



**Silver Fern Chemical, Inc.
Safety Data Sheet
N-Methylpyrrolidone**

**Revision Date:
10 September, 2026**

Section 1. Identification

Product Identity N-Methylpyrrolidone
Other means of identification NMP; 1-Methyl-2-pyrrolidone; N-Methyl-2-pyrrolidone; NMP Reclaim

Relevant identified uses of the substance or mixture and uses advised against

Industrial and laboratory applications

Details of the supplier of the safety data sheet

Company Name Silver Fern Chemical, Inc.
121 W. De La Guerra Street, Suite B
Santa Barbara, CA 93101 USA
info@silverfernchemical.com
Website - www.silverfernchemical.com

24 hour Emergency Telephone No. **Emergency telephone number:**
Infotrac: 1-800-535-5053
Outside USA & Canada +1-352-323-3500

Customer Service: Customer Service: 1-866-282-3384

Section 2. Hazard(s) identification

Classification of the substance or mixture under OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7)



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Flammable Liquid 4;H227
Skin corrosion/irritation category 2;H315

Serious eye damage / eye irritation, category 2A;H319
Reproductive toxicity, category 1B;H360D

Specific target organ toxicity, Single exposure category 3;H335

Combustible Liquid.
Causes skin irritation.

Causes serious eye irritation.
May damage the unborn child.

May cause respiratory irritation.

Label elements



Danger

H227 Combustible liquid.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H360D May damage the unborn child.

[Prevention]

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No Smoking.



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P261 Avoid breathing dust, fume, gas, mist, vapors, spray.
P264 Wash thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves, eye protection, and face protection.

[Response]

P302+352 IF ON SKIN: Wash with plenty of soap and water.
P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+313 IF exposed or concerned: Get medical advice or attention.
P312 Call a POISON CENTER, doctor or physician if you feel unwell.
P332+313 If skin irritation occurs: Get medical attention.
P337+313 If eye irritation persists: Get medical advice or attention.
P362+364 Take off contaminated clothing and wash it before reuse.
P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.

[Storage]

P403+233 Store in a well ventilated place. Keep container tightly closed.
P403 Store in a well ventilated place.
P405 Store locked up.

[Disposal]

P501 Dispose of contents or container in accordance with local and national regulations.

Other hazards

This product contains no PBT/vPvB/vPvM chemicals.
This product contains no endocrine disrupting chemicals.

Does NOT contain component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS) per the US EPA PFASMASTER combined list of PFAS chemicals.

Section 3. Composition/information on ingredients

This product contains the following substances that present a hazard within the



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meaning of the OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7).

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
1-methyl-2-pyrrolidone CAS Number: 872-50-4 Synonyms: NMP; 1-Methyl-2-pyrrolidone; N-Methyl-2-pyrrolidone; NMP Reclaim	99.5%min	Reproductive toxicity, category 1B; H360D Serious eye damage / eye irritation, category 2; H319 Specific target organ toxicity, Single exposure category 3; H335 C ≥ 10 % Skin corrosion/irritation category 2; H315	No data available

The actual concentration or concentration range is withheld as a trade secret.

*PBT/vPvB - PBT, vPvM or vPvB-substance.

The full texts of the phrases are shown in Section 16.

Section 4. First aid measures

Description of first aid measures

General In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Eyes Rinse with plenty of clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

Skin Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

Ingestion If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed

Overview No specific symptom data available.
Reproductive or genetic defect hazard. Treat symptomatically. See section 2 for further details.

Inhalation May cause respiratory irritation.

Eyes Causes serious eye irritation.

Skin Causes skin irritation.



Section 5. Fire-fighting measures

Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO₂, powder, water spray.
Unsuitable extinguishing media: Do not use; water jet.

Special hazards arising from the substance or mixture

Hazardous decomposition: No hazardous decomposition data available.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No Smoking.
Avoid breathing dust, fume, gas, mist, vapors, spray.

Advice for fire-fighters

As with all fires, wear positive pressure, self-contained breathing apparatus, (SCBA) with a full face piece and protective clothing. Persons without respiratory protection should leave area. Wear SCBA during clean-up immediately after fire. No smoking.

ERG Guide No.

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Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).
Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

Environmental precautions

Do not allow spills to enter drains or waterways.



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Methods and material for containment and cleaning up

Ventilate the area and avoid breathing vapors. Take the personal protective measures listed in section 8.

Contain and absorb spillage with non-combustible materials e.g. sand, earth, and vermiculite. Place in closed containers outside buildings and dispose of according to the Waste Regulations.

Section 7. Handling and storage

Precautions for safe handling

Handle containers carefully to prevent damage and spillage.

Store in accordance with the National Fire Protection Association's publication NFPA 30, Flammable and Combustible Liquids Code. 29 CFR 1910.106 applies to the handling, storage, and use of flammable and combustible liquids.

See section 2 for further details. - [Prevention]

Conditions for safe storage, including any incompatibilities

Store in a cool dry area, away from heat, sparks and open flame.

Keep containers sealed when not in use.

Store out of direct sunlight.

Incompatible materials: No available information

See section 2 for further details. - [Storage]

Specific end use(s)

No available information

Section 8. Exposure controls / personal protection

Control parameters

Exposure Limits

CAS No.	Ingredient	Source	Value
872-50-4	1-methyl-2-pyrrolidone	OSHA	No Established Limit
		ACGIH	No Established Limit



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CAS No.	Ingredient	Source	Value
		NIOSH	No Established Limit

**Exposure
controls**

Respiratory If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.

Eyes Protective safety glasses recommended

Skin Avoid skin contact. Protective gloves recommended.

Engineering Controls Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

Other Work Practices Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details.

Section 9. Physical and chemical properties

Information on basic physical and chemical properties

Physical State	Liquid
Color	Clear, Colorless
Odor	Ammoniacal
Odor threshold	No available information
Melting point / freezing point	- 24 °C (-11.2 °F)
Initial boiling point and boiling range	202 °C (395.6 °F)
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: 1.0% (v) Upper Explosive Limit: 9.5% (v)
Flash Point	88 °C (190 °F), closed cup
Auto-ignition temperature	No available information
Decomposition temperature	No available information



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pH	8.5 - 10.0 (10% aqueous solution @ 20 °C)
Kinematic viscosity	No available information
Solubility in Water	Miscible
Partition coefficient n-octanol/water (Log Kow)	log POW = -0.46 @ 20 °C
Vapor pressure (Pa)	> 1.33 hPa @ 20 °C
Relative Density	1.0304 g/cc (8.60 lb/gal) @ 20 °C
Vapor Density	3.4 [Air = 1]
Evaporation rate (Ether = 1)	No available information
Oxidising properties	No available information
Explosive properties	No available information
Molecular Weight	99.15 g/mol

Other information

No other relevant information.

Section 10. Stability and reactivity

Reactivity

Hazardous Polymerization will not occur.

Chemical stability

Stable under normal circumstances. Hygroscopic material (absorbs moisture from the air). Light sensitive.

Possibility of hazardous reactions

Hazardous polymerization will not occur.

Conditions to avoid

High temperatures, sources of ignition, hot surfaces, contact with incompatible materials, moisture, light exposure.

Incompatible materials

Strong oxidizing agents, strong acids, acid anhydrides, aldehydes, isocyanates, halogenated compounds, various rubbers and plastics.

Hazardous decomposition products

Thermal decomposition products include oxides of carbon, nitrogen oxides (NO_x), toxic fumes, dense black smoke and gases.



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Section 11. Toxicological information

Acute toxicity

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
1-methyl-2-pyrrolidone - (872-50-4)	4,150.00, Rat - Category: 5	> 5,000.00, Rat - Category: NA	No data available.	No data available.	5,100.00, Rat - Category: 4

Carcinogen Data

CAS No.	Ingredient	Source	Value
872-50-4	1-methyl-2-pyrrolidone	OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;
		IARC	No
		ACGIH	No Established Limit

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	2	Causes skin irritation.
Serious eye damage/irritation	2A	Causes serious eye irritation.
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	1B	May damage the unborn child.
STOT-single exposure	---	Not Applicable
STOT-single exposure (3)	3	May cause respiratory irritation.
STOT-repeated exposure	---	Not Applicable



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Aspiration hazard	---	Not Applicable
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Possible routes of entry:

Inhalation, ingestion, skin contact, and skin absorption.

Symptoms and effects, both acute and delayed:

No specific symptom data available.

Reproductive or genetic defect hazard. Treat symptomatically.

Inhalation	May cause respiratory irritation.
Eyes	Causes serious eye irritation.
Skin	Causes skin irritation.

Section 12. Ecological information

Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/L	48 hr EC50 crustacea, mg/L	ErC50 algae, mg/L
1-methyl-2-pyrrolidone - (872-50-4)	> 600.00, Oncorhynchus mykiss	No data available.	600.50, Desmodesmus subspicatus

Persistence and degradability

There is no data available on the preparation itself.

Bioaccumulative potential

No available information

Mobility in soil

No available information

Results of PBT and vPvB assessment

This product contains no PBT/vPvB/vPvM chemicals.

Other adverse effects

No available information

Section 13. Disposal considerations



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Waste treatment methods

Observe all federal, provincial and local regulations when disposing of this substance.

Section 14. Transport information

A flammable liquid with a flash point at or above 38 °C (100 °F) that does not meet the definition of any other hazard class may be reclassified as a combustible liquid. This provision does not apply to transportation by vessel or aircraft, except where other means of transportation are impracticable. May be reclassified as not regulated for transport in non-bulk packages having a maximum capacity less than or equal to 450 liters (119 gallons).



	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
UN number	NA1993	Not Regulated	Not Regulated
UN proper shipping name	Combustible liquid, n.o.s. (N-Methylpyrrolidone)	Not Regulated	Not Regulated
Transport hazard class(es)	Class: Combustible liquid Sub Class: Not Applicable	Class: Not Applicable Sub Class: Not Applicable	Class: Not Applicable Sub Class: Not Applicable
Packing group	III	Not Applicable	Not Applicable

Environmental hazards



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IMDG Marine Pollutant: No;
Special precautions for user

No available information

Section 15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Classification of the substance or mixture under OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7)

Toxic Substance Control Act (TSCA)

CAS Number	Ingredient	Toxic Substance Control Act (TSCA)	Comments	Status
0000872-50-4	1-methyl-2-pyrrolidone	Yes	R	ACTIVE

The following flags are used:

- Active - indicates commercial status designation of active
- E - indicates a substance that is the subject of a Section 5(e) Consent Order under TSCA.
- F - indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
- N - indicates a polymeric substance containing no free-radical initiator in its Inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
- P - indicates a commenced Premanufacture Notice (PMN) substance.
- R - indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
- S - indicates a substance that is identified in a final Significant New Uses Rule.
- SP - indicates a substance that is identified in a proposed Significant New Uses Rule.
- T - indicates a substance that is the subject of a final Section 4 test rule under TSCA.
- UVCB Chemical Substances of Unknown or Variable Composition, Complex Reaction Products and Biological Materials •XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
- Y1 - indicates a polymer that has a number-average molecular weight greater than 1,000 and that was exempt under the 1984 polymer exemption rule.
- Y2 - indicates a polymer that is a polyester and that was exempt under the 1984 polymer exemption rule.

EPCRA 302 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:



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Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):

1-methyl-2-pyrrolidone

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 Label Warning:



WARNING: This product can expose you to chemicals including [1-methyl-2-pyrrolidone], which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Mass RTK Substances (>1%) :

1-methyl-2-pyrrolidone

New Jersey RTK Substances (>1%):

1-methyl-2-pyrrolidone

Pennsylvania RTK Substances (>1%):

1-methyl-2-pyrrolidone

OSHA Process Safety Management Standard Highly Hazardous Chemicals, Toxics and Reactives:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.



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US EPA List of Regulated Substances under the Risk Management Plan (RMP) Program:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

US EPA Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) under the Minimum Risk Exemption:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

U.S. - DEA List II or Essential Chemicals:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

U.S. - DEA - Exempt Chemical Mixtures - List 1 and 2:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

US DHS Chemical Facility Anti-Terrorism Standards (CFATS):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

CERCLA Chemicals and RQs:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Section 16. Other information

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DISCLAIMER OF RESPONSIBILITY

The information on this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or



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methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume damage or expense arising out of or in any way responsibility and expressly disclaim liability for loss, connected with handling, storage, use, or disposal of this product. If the product is used as a component in another product, this SDS information may not be applicable.

The full text of the phrases appearing in section 3 is:

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H360 May damage fertility or the unborn child.

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