

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Product identifier:

Product Name: N-METHYL PYRROLIDONE
Chemical Name: N-methyl-2-pyrrolidone;
Synonyms: 1-methyl-2-pyrrolidone
REACH Registration No.: 01-2119472430-46-XXXX
CAS No.: 872-50-4
EC No.: 212-828-1

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

- Use of the substance/mixture: Solvent. Cleaning solutions. Coatings. Laboratory chemicals. Processing aid. Agrochemicals. Functional fluids. Road and construction applications.

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2. HAZARDS IDENTIFICATION

Classification of the substance or mixture: Repr. 1B.

Eye Irrit. 2.
Skin Irrit. 2.
STOT SE 3.

Label elements:



Signal Word: Danger

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Hazard statements:	H315- Causes skin irritation. Causes serious eye irritation. May damage the unborn child. May cause respiratory irritation.
Precautionary statements:	Obtain special instructions before use. Avoid breathing dust/fume/gas/mist/vapours/spray. Wear protective gloves/protective clothing/eye protection/face protection. P305+P351+P338- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation occurs: Get medical advice/attention. IF ON SKIN: Wash with plenty of soap and water. IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Risk Phrases:	May cause harm to the unborn child. Irritating to eyes, respiratory system and skin.
Safety Phrases:	After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label. Do not breathe vapour.
Other hazards:	

3. COMPOSITION / INFORMATION ON INGREDIENTS

Mixtures:	N-methyl-2-pyrrolidone; 1-methyl-2-pyrrolidone
Concentration:	
CAS Number:	872-50-4
EC Number:	212-828-1
R/H Phrases:	H360D, H319, H335, H315, R61, R36/37/38.
Symbols:	GHS08, GHS07, T

4. FIRST AID MEASURES

Description of first aid measures:

If substance has got into eyes:	Immediately wash out with plenty of water for at least 15 minutes and get medical attention.
IF INHALED:	Remove person to fresh air and keep comfortable for breathing.
IF INHALED:	Call a POISON CENTER or doctor/physician if you feel unwell.
After contact with skin:	Take off immediately all contaminated clothing and wash immediately with plenty of water (S27/28).
If skin irritation occurs:	Get medical advice/attention.
If swallowed:	Rinse mouth with water (only if the person is conscious).
IF SWALLOWED:	Immediately call a POISON CENTER or doctor/physician.

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Most important symptoms and effects, both acute and delayed:

Causes irritation.
Causes dizziness, confusion, headache or stupor.
May damage the unborn child.

Indication of any immediate medical attention and special treatment needed:

Keep affected person warm and at rest. Get prompt medical attention.

5. FIRE-FIGHTING MEASURES

Extinguishing media: In case of fire use water spray or fog, alcohol resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media: High Volume Water Jet.

Special hazards arising from the substance or mixture: Vapours may ignite

Advice for firefighters: If exposed to fire toxic gasses may be formed.
Wear full protective clothing including chemical protection suit.
Wear Breathing Apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Vapours are heavier than air and may travel considerable distances to a source of ignition and flashback.
Ensure adequate ventilation.
Evacuate the area and keep personnel upwind.
Wear protective clothing.
Wear suitable respiratory protection.

Environmental precautions: Do not allow to enter public sewers and watercourses.

Methods and material for containment and cleaning up: Absorb spillage in earth or sand.

Collect as much as possible in clean container for reuse or disposal.
Wash thoroughly after dealing with spillage Absorb spillage in earth or sand.
Collect as much as possible in clean container for reuse or disposal.
Dispose of the collected material according to regulations.

Reference to other sections: See Section 7 for information on safe handling.
See Section 8 for information on personal protective equipment.

7. HANDLING AND STORAGE

Precautions for safe handling: The usual precautions for handling chemicals should be observed.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
No smoking.
Avoid contact with skin and eyes.
Avoid contact with acid.
Do not mix with oxidising substances.

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Conditions for safe storage, including any incompatibilities: Keep away from oxidising substances.

Keep away from acids and alkalis.

Keep only in the original container in a cool, well ventilated place.

Protect from light.

Specific end use(s): See Section 1.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters: OES / STEL: 20 ppm

Exposure controls: Appropriate respiratory protection should be worn for short periods if no extraction available.
Chemical gloves, goggles and appropriate skin protection should be worn when handling.
Engineering controls should be provided which maintain airborne concentrations as low as practicable

Occupational exposure controls: Wear suitable protective clothing.
Wear goggles giving complete eye protection.
Wear plastic gloves specified as compatible by the manufacturer.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Odour: Characteristic odour

Appearance: Clear Liquid

Boiling point: 204°C

Vapour pressure: 0.32 hPa at 20°C

Vapour density (air = 1):

Melting point: minus 24°C

Solubility: Completely soluble in water

Relative Density: 1.03 at 20°C

Flash point: 91°C

Lower flammability limit: 1.3% (in air)

Upper flammability limit: 9.5% (in air)

Auto-ignition temperature: 245°C

Viscosity: 1.6 mPa.s at 25°C

Other information:

10. STABILITY AND REACTIVITY

Reactivity: Stable under normal temperature conditions and recommended use

Chemical stability: Stable at normal temperature conditions and recommended use. - Hygroscopic

Possibility of hazardous reactions: Vapours may ignite

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Conditions to avoid: Avoid contact with oxidising substances.
Avoid contact with alkalis (strong bases).
Avoid contact with strong acids.
Avoid contact with reducing agents.
Avoid contact with moisture.
Keep away from heat and light.
Avoid contact with aluminium.

Incompatible materials: Incompatible with strong oxidizing substances.
Incompatible with alkalis (strong bases).
Incompatible with reducing agents.
Incompatible with strong acids.

Hazardous decomposition products: Decomposition products may include toxic gas.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects: LD50 (oral, rat): 4200 mg/kg

LD50 (skin, rat): 5000 mg/kg

LC50 (inhalation): >5.1 mg/l

Inhalation: May cause irritation.
Contact with skin: Causes irritation.
Contact with eyes: Causes irritation.
Ingestion: Possible risk of harm to the unborn child.
Carcinogenicity: No evidence of carcinogenic effects.
Teratogenicity: Pregnant women should not be exposed to this product.
Mutagenicity: No evidence of mutagenic effects.

12. ECOLOGICAL INFORMATION

Toxicity: LC50 (fish): >500 mg/l (96 hr)
EC50 (daphnia): >1000 mg/l (48 hr)
IC50 (algae): >500 mg/l (72 hr)

Persistence and degradability: Readily biodegradable.

Bioaccumulative potential: Bioaccumulation is insignificant.

Mobility in soil: Completely soluble in water.

Results of PBT and vPvB assessment: Not a PBT according to REACH Annex XIII.

Other adverse effects: On available data, substance is not harmful to the environment.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods: Incineration by an approved method could be considered.
Disposal should be in accordance with local, state or national legislation.

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14. TRANSPORT INFORMATION

UN number:

UN proper shipping name:

Transport hazard class(es):

Packing group:

Environmental hazards:

Special precautions for user:

Transport in bulk according to Annex II of Marpol and the IBC Code:

Emergency Action Code:

Proper Shipping Name:

EAC:

Road/Rail (ADR/RID):

Proper Shipping Name:

ADR UN No.:

ADR Hazard Class:

ADR Item No.:

ADR/RID No.:

Tremcard:

Tunnel Code:

Sea (IMDG):

Proper Shipping Name:

IMDG UN No.:

IMDG Hazard Class:

IMDG Page No.:

IMDG Pack Group.:

IMDG EmS:

IMDG MFAG:

Air (ICAO/IATA):

Proper Shipping Name:

ICAO UN No.:

ICAO Hazard Class:

ICAO Packing Group:

DOT / CFR (US Department of Transportation):

DOT Proper Shipping Name:

Hazardous Material:

Hazard Class:

Identification Number:

Product RQ (lbs):

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15. REGULATORY INFORMATION

Chemical safety assessment: No Chemical Safety Assessment has been carried out.

Note: The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16. OTHER INFORMATION

Text not given with phrase codes where they are used elsewhere in this safety data sheet:

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

H360D: May damage the unborn child.

R36/37/38: Irritating to eyes, respiratory system and skin.

Legal disclaimer: The information contained in this SDS does not constitute a risk assessment, and should not replace the user's own assessment of risks as required by other health and safety legislation. This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.