

Date: Jul.5th, 2025

Chemical Safety Data Sheet

Section 1 IDENTIFICATION

GHS Product identifier: N-Methyl Pyrrolidone.

Other means of identification: 1-Methyl-2-pyrrolidinone.

Recommended use of the chemical and restrictions on use: /

Supplier's details:

HEBEI JRAIN TECHNOLOGY CO.,LTD.

Address: No. 66 XIANGTAI ROAD, YUHUA DISTRICT, SHIJIAZHUANG CITY,
HEBEI PROVINCE,CHINA

Post Code:050000

Tel: 86-311-80680379

Fax: 86-311-80680380

Emergency Tel: 86-311-80680379

Emergency phone number: /

Section 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture:

Skin corrosion/irritation Category 2

Serious eye damage/eye irritation Category 2A

Reproductive toxicity Category 1B

Specific target organ toxicity, single exposure Category 3 (Respiratory tract irritation)

GHS Label elements, including precautionary statements:

Symbol:



Signal word: Danger

Hazard statement(s): Causes skin irritation. Causes serious eye irritation. May damage fertility or the unborn child. May cause respiratory irritation. Precautionary statement(s):

Prevention:

Wash ...thoroughly after handling. 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/hearing protection. Avoid breathing dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Response:

If on skin: Wash with plenty water/...Specific treatment (see under for further information). If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before

河北捷润科技有限公司

Hebei JRain Technology Co., Ltd.

reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison

center/doctor if you feel unwell. 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.

Storage:

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

Disposal:

Dispose of contents/container in accordance with local/regional/national/international regulations. **Other hazards which do not result in classification:**

Section 3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS NO.	Concentration
N-Methyl Pyrrolidone	872-50-4	99.9020%

Section 4 FIRST AID MEASURES

Description of necessary first aid measures

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact: Remove contaminated clothing and rinse with plenty of running water. **In case of eye contact:** Rinse thoroughly with plenty of running water for at least 15 minutes and consult a physician.

If ingestion: Rinse mouth with water. Consult a physician.

Most important symptoms/effects, acute and delayed: /

Indication of immediate medical attention and special treatment needed, if necessary: /

Section 5 FIREFIGHTING MEASURES

Suitable extinguishing media: Use foam, dry powder, carbon dioxide, etc.

Special hazards arising from the chemical: Combustible liquid. This material may decompose and burn at high temperature and fire and release toxic fumes.

Special protective actions for fire-fighters: Firefighters must wear air breathing apparatus, fire-fighting suits and protective gloves to extinguish in the upwind direction. Whenever possible, remove the container from the fire to open space and use spray water to cool unopened containers.

Section 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: It is recommended that emergency personnel wear protective masks and fire protective overalls. Do not touch the spill directly.

Environmental precautions: Isolate contaminated areas and restrict access.

Methods and materials for containment and cleaning up: Small amount of leakage: adsorption with sand or other inert materials. Do not allow products to enter restricted areas such as sewers. A large amount of leakage: building a dike or digging a pit to contain. Transfer to a tank truck or special collector with a pump and transport to a waste disposal site for disposal.

Section 7 HANDLING AND STORAGE

河北捷润科技有限公司

Hebei JRain Technology Co., Ltd.

Precautions for safe handling: There should be sufficient local exhaust in workplace.

Operators should be trained and strictly follow the operating procedures. Operators are advised to wear

protective masks, normal protective clothing and rubber gloves. Operators should load and unload lightly during handling to prevent damage to the package. There should be leakage treatment equipment in workplace. There may be harmful residues in empty containers.

Conditions for safe storage, including any incompatibilities: Store in a cool, dry, well-ventilated warehouse. Keep away from fire and heat. Protect from direct sunlight. The package should be sealed and not exposed to moisture. It should be stored separately from oxidants, flammable materials, etc., and should not be mixed. The storage area should be provided with suitable materials to contain spills.

Section 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters: /

Appropriate engineering controls: Close strictly and provide sufficient local exhaust.

Individual protection measures

Eye/face protection: Wear a protective mask.

Skin protection: Wear normal protective clothing.

Respiratory protection: Air respirators should be worn during emergency rescue or evacuation.

Thermal hazards: /

Section 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, colour etc)	Colorless transparent liquid.
Odour	/
Odour Threshold	/
pH	7.74.
Melting point/freezing point	-24°C.
Initial boiling point and boiling range	202~204°C.
Flash point	95°C.
Evaporation rate	/
Flammability (solid, gas)	/
Upper/lower flammability or explosive limits	1.3%-9.5%.
Vapour pressure	/
Vapour density	/
Relative density	1.028~1.035.
Solubility(ies)	Soluble in water.
Partition coefficient: n-octanol/water	/
Auto-ignition temperature	/
Decomposition temperature	/
Viscosity	/

Section 10 STABILITY AND REACTIVITY

Reactivity: /

Chemical stability: This material is stable in normal temperature.

河北捷润科技有限公司

Hebei JRain Technology Co., Ltd.

Possibility of hazardous reactions: Decomposes on heating and on burning. This produces toxic fumes including nitrogen oxides. It reacts violently with strong acids and strong bases. Attacks copper and its alloys.

Conditions to avoid: Spark, static electricity and high temperature.

Incompatible materials: Flammable materials, acids, alkalis and oxidizers.

Hazardous decomposition products: Carbon oxides and nitrogen oxides.

Section 11 TOXICOLOGICAL INFORMATION

Information on the likely routes of exposure: Ingestion (swallowing), skin/eye exposure and inhalation.

Symptoms related to the physical, chemical and toxicological characteristics: /

Acute health effects:

Ingestion can cause symptoms such as nausea, vomiting and abdominal pain.

Skin contact can cause redness and irritation.

Inhalation can cause cough, throat irritation.

Eyes contact can cause redness and irritation.

Chronic health effects: Repeated or prolonged contact with skin may cause dermatitis.

Animal tests show that this substance possibly causes toxic effects upon human reproduction.

Numerical measures of toxicity(such as acute toxicity estimates):

LD50(oral, rat): 3914 mg/kg

LD50(dermal, rat): 2500-5000 mg/kg

LC50(inhalation, rat): 8290.5297 mg/l/4H

Section 12 ECOLOGICAL INFORMATION

Toxicity:

Endpoint	Test Duration (hr)	Species	Value
LC50	96	Fish	464mg/L 4897mg/L
EC50	48	Crustacea	L
EC50	72	Algae or other aquatic plants	>500mg/L
EC0	24	Crustacea	>1-mg/L
NOEC	504	Crustacea	12.5mg/L

Persistence and degradability: Low.

Bioaccumulative potential: Low (BCF = 0.16).

Mobility in soil: Low (KOC = 20.94).

Other adverse effects: /

Section 13 DISPOSAL CONSIDERATIONS

Disposal methods: Dispose this product by safe burial. Damaged containers are prohibited from being reused and should be buried in the prescribed place.

Section 14 TRANSPORT INFORMATION

UN number: /

UN proper shipping name: /

Transport hazard class(es) : /

Packing group, if applicable: /

Environmental hazards: /

Special precautions for user: /

Section 15 REGULATORY INFORMATION

Regulations: This safety data sheet is in compliance with the following national standards: GB/T 16483-2008, GB 13690-2009, GB 18218-2009, GB 15258-2009, GB 6944-2012, GB 190-2009, GB/T 191-2008, GB 12268-2012, GA 57-1993, GB/T 15098-2008, GBZ 2.1-2007, GBZ 2.2-2007 as well as the following national regulations: Dangerous Goods Transport Administrative Regulation [Published by the Ministry of Railways, 2008], Dangerous Chemicals Safety Administrative Regulation [Published by the State Council, 2011].

Section 16 OTHER INFORMATION

References	Recommendations on the Transport of Dangerous Goods UN Model Regulations UN Globally Harmonized System of Classification and Labelling of Chemicals
Form Date	06-Sep-2023

Note 1: When products contain two or more hazardous substances, Safety Data Sheets should be prepared based on the risk of the mixture.

Note 2: Manufacturer/supplier should ensure the correctness of the information contained in the safety data sheets, and updated in a timely manner.

Note 3: As a result of product features without the existence of certain information or no data available (such as boiling point does not exist for the solid) in the table with "/" logo.