



Specialized in chemicals

Hefei TNJ Chemical Industry Co.,Ltd.

D1508 Xincheng Business Center,
Qianshan Road, Hefei 230022 China

Tel : (0086) 551 65418678

Fax: (0086) 551 65418697

Email: info@tnjchem.com

Site: www.tnjchem.com

Material Safety Data Sheet

N-Vinyl-2-Pyrrolidone

Section 1: Chemical Product and Company Identification

Molecular formula: C₆H₉NO

CAS Nr: 88-12-0

EINECS: 201-800-4

Molecular weight: 111.14 g/mol

Chemical family: lactam

Synonyms: N-Vinylbutyrolactam; 1-Vinyl-2-pyrrolidone; 1-Vinyl-2-pyrrolidinone;
1-Ethenyl-2-pyrrolidinone; N-Vinyl-2-pyrrolidinone; N-Vinyl-2-pyrrolidone.

Contact Information for Emergency: (0086) 551 65418678

Hefei TNJ Chemical Industry Co.,Ltd.

B911 Xincheng Business Center

Qianshan Road, Hefei

230004Anhui

China

Tel : (0086) 551 65418678

Fax: (0086) 551 65418697

Email: info@tnjchem.com

Site: www.tnjchem.com

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% By Weight
N-Vinyl-2-Pyrrolidone	88-12-0	100

Toxicological Data on Ingredients: Not applicable.

Section 3: Hazards Identification

Appearance: yellow clear liquid.

Warning! Causes severe eye irritation and possible eye injury. Harmful if absorbed through the skin. Causes respiratory tract irritation. May be harmful if inhaled. May be harmful if swallowed.

Target Organs: Liver, eyes.

Potential Health Effects

Eye: Causes severe eye irritation. Causes redness and pain.

Skin: May cause skin irritation. Harmful if absorbed through the skin.

Ingestion: May cause irritation of the digestive tract. May cause nausea and vomiting. May be harmful if swallowed.

Inhalation: Causes respiratory tract irritation. May be harmful if inhaled. May cause headache.

Inhalation of vapors will cause coughing or breathing difficulty.

Section 4: First Aid Measures

Eyes:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid immediately.

Skin:

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

Ingestion:

If swallowed, do not induce vomiting unless directed to do so by medical personnel.

Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation:

If inhaled: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5: Fire and Explosion Data

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Will burn if involved in a fire. Polymerizes readily if not inhibited; heat can initiate reaction.

Extinguishing Media:

Use water spray, dry chemical, carbon dioxide, or chemical foam.

Flash Point: 95 deg C (203.00 deg F)

Autoignition Temperature: Not available.

Explosion Limits, Lower:Not available.

Upper: Not available.

Section 6: Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container.

Provide ventilation.

Section 7: Handling and Storage

Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid breathing vapor or mist. Do not get in eyes. Avoid contact with skin and clothing.

Storage:

Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8: Exposure Controls/Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Personal Protective Equipment

Eyes: Wear chemical splash goggles.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Section 9: Physical and Chemical Properties

Physical State:	Clear liquid
Appearance:	colorless - yellow
Odor:	Characteristic odor
pH:	9-10(100g/l aq.sol.)
Vapor Pressure:	0.114 mm Hg @ 25 deg C
Vapor Density:	3.8 (air=1)
Evaporation Rate:	Not available.
Viscosity:	2.4 mPa.s@ 20 deg C
Boiling Point:	90-92 deg C @ 13 mm Hg
Freezing/Melting Point:	13-14 deg C
Decomposition Temperature:	Not available.
Solubility:	Soluble.
Specific Gravity/Density:	1.0430g/cm3
Molecular Formula:	C6H9NO
Molecular Weight:	111.14

Section 10: Stability and Reactivity Data

Chemical Stability:

Becomes yellow over time.

This material is a monomer and may polymerize under certain conditions if the stabilizer is lost.

Conditions to Avoid: Excess heat.

Incompatibilities with Other Materials: Strong oxidizing agents, acids, polymerizing initiators.

Hazardous Decomposition Products: Nitrogen oxides, carbon monoxide, carbon dioxide.

Hazardous Polymerization: May occur.

Section 11: Toxicological Information

CAS# 88-12-0:

Draize test, rabbit, eye: 100 mg Severe;

Inhalation, rat: LC50 = 3200 mg/m³/4H;

Oral, rat: LD50 = 1470 mg/kg;

Skin, rabbit: LD50 = 560 mg/kg;

Epidemiology: No data available.

Teratogenicity: No data available.

Reproductive Effects: No data available.

Mutagenicity: No data available.

Neurotoxicity: No data available.

Other Studies:

Section 12: Ecological Information

Ecotoxicity: No data available. Log Pow 0.4

Environmental: No information available.

Physical: No information available.

Other: Biodegradable.

Section 13: Disposal Considerations

Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

Toxic liquids

UN number: UN2810

Packing Group: III

Section 15: Other Regulatory Information

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 88-12-0: immediate, reactive.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA. Created:

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

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