



Specialized in chemicals

Hefei TNJ Chemical Industry Co.,Ltd.

B911 Xincheng Business Center,  
Qianshan Rd. Hefei 230022 China

Tel : (0086) 551 5418695

Fax: (0086) 551 5418697

Email: [info@tnjchem.com](mailto:info@tnjchem.com)

Site: [www.tnjchem.com](http://www.tnjchem.com)

## Material Safety Data Sheet

### N-Methylformamide

#### Section 1: Chemical Product and Company Identification

MSDS Name: N-Methylformamide

Catalog Numbers: AC414330000, AC414330050, AC414331000

Synonyms: N-Methylformamide; Monomethylformamide.

Contact Information for Emergency: (0086) 551 5418696

Hefei TNJ Chemical Industry Co.,Ltd.

B911 Xincheng Business Center

Qianshan Road, Hefei

230004Anhui

China

Tel : (0086) 551 5418695

Fax: (0086) 551 5418697

Email: [info@tnjchem.com](mailto:info@tnjchem.com)

Site: [www.tnjchem.com](http://www.tnjchem.com)

#### Section 2: Composition and Information on Ingredients

Composition:

Name	CAS # %	By Weight
N-Methylformamide	123-39-7	≥ 99.0%

Toxicological Data on Ingredients: Not applicable.

#### Section 3: Hazards Identification

Appearance: clear, colorless liquid.

**Warning!** Causes respiratory tract irritation. May cause harm to the unborn child. Causes eye and skin irritation. May be harmful if swallowed, inhaled, or absorbed through the skin.

Target Organs: Liver, reproductive system.

### Potential Health Effects

**Eye:** Causes eye irritation. May cause chemical conjunctivitis.

**Skin:** Causes skin irritation. May be harmful if absorbed through the skin.

**Ingestion:** May cause gastrointestinal irritation with nausea, vomiting and diarrhea. As with other formamides, exposure to this agent is associated with liver toxicity.

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

**Chronic:** May cause reproductive and fetal effects.

### 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.

**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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool.

**Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or appropriate foam.

**Flash Point:** 111 deg C ( 231.80 deg F)

**Autoignition Temperature:** 425 deg C ( 797.00 deg F)

**Explosion Limits, Lower:**3.8%

Upper: 17.8%

NFPA Rating: (estimated) Health: 2; Flammability: 1; Instability: 0

### 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. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

### Section 7: Handling and Storage

#### Handling:

Wash thoroughly after handling.

Remove contaminated clothing and wash before reuse.

Avoid contact with eyes, skin, and clothing.

Keep container tightly closed.

Avoid ingestion and inhalation.

Use with adequate ventilation.

#### 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.

#### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
N-Methylformamide	none listed	none listed	none listed

**OSHA Vacated PELs:** N-Methylformamide: No OSHA Vacated PELs are listed for this chemical.

**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.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

**Section 9: Physical and Chemical Properties**

<b>Physical State:</b>	Liquid
<b>Appearance:</b>	clear, colorless
<b>Odor:</b>	weak odor
<b>pH:</b>	6-8 (250 g/l aq soln)
<b>Vapor Pressure:</b>	0.25 mm Hg @ 25 deg C
<b>Vapor Density:</b>	Not available.
<b>Evaporation Rate:</b>	Not available.
<b>Viscosity:</b>	1.9 mPa.s @ 20 deg C
<b>Boiling Point:</b>	180-185 deg C
<b>Freezing/Melting Point:</b>	-3.2 deg C
<b>Decomposition Temperature:</b>	Not available.
<b>Solubility:</b>	Soluble.
<b>Specific Gravity/Density:</b>	1.003 g/cm <sup>3</sup>
<b>Molecular Formula:</b>	C <sub>2</sub> H <sub>5</sub> NO
<b>Molecular Weight:</b>	59.06

**Section 10: Stability and Reactivity Data**

**Chemical Stability:** Stable at room temperature in closed containers under normal storage and handling conditions.

**Conditions to Avoid:** Excess heat.

**Incompatibilities with Other Materials:** Strong oxidizing agents, acids, bases, acid chlorides.

**Hazardous Decomposition Products:** Carbon monoxide, oxides of nitrogen, irritating and toxic fumes and gases, carbon dioxide.

**Hazardous Polymerization:** Has not been reported

## Section 11: Toxicological Information

**RTECS#:**

**CAS# 123-39-7:** LQ3000000

**LD50/LC50:**

**CAS# 123-39-7:**

Draize test, rabbit, eye: 100 mg;

Oral, mouse: LD50 = 2600 mg/kg;

Oral, rat: LD50 = 4 gm/kg;

**Carcinogenicity:**

**CAS# 123-39-7:** Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information available.

**Teratogenicity:** Teratogenic effects have occurred in experimental animals.

**Reproductive Effects:** Adverse reproductive effects have occurred in experimental animals.

**Mutagenicity:** See actual entry in RTECS for complete information.

**Neurotoxicity:** No information available.

**Other Studies:**

## Section 12: Ecological Information

**Ecotoxicity:**

No data available. No information available.

**Environmental:**

Terrestrial: May be subject to biodegradation based on its biodegradation by microorganisms obtained through soil enrichment and its structural similarities to dimethylformamide which biodegrades in river water. Aquatic: If released to water, its hydrolysis is expected to be slight based on hydrolysis data for dimethylformamide. Atmospheric: Expected to exist almost entirely in the vapor phase in the ambient atmosphere, half-life 1.7 hours. There is slight bioconcentration.

**Physical:** No information available.

**Other:** No information available.

**Section 13: Disposal Considerations**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3.

Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

**Section 14: Transport Information**

**US DOT**

Not regulated as a hazardous material

**Hazard Class:**

**UN Number:**

**Packing Group:**

**Canada TDG Shipping Name:**

No information available.

**Section 15: Other Regulatory Information**

**US FEDERAL**

**TSCA**

CAS# 123-39-7 is listed on the TSCA inventory.

**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.

**TSCA Significant New Use Rule**

None of the chemicals in this material have a SNUR under TSCA.

**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 # 123-39-7: immediate, delayed.

**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 depleters.

This material does not contain any Class 2 Ozone depleters.

**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.

**STATE**

CAS# 123-39-7 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

**California Prop 65**

California No Significant Risk Level: None of the chemicals in this product are listed.

## European/International Regulations

### European Labeling in Accordance with EC Directives

#### Hazard Symbols:

T

#### Risk Phrases:

R 21 Harmful in contact with skin.

R 61 May cause harm to the unborn child.

#### Safety Phrases:

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 53 Avoid exposure - obtain special instructions before use.

#### WGK (Water Danger/Protection)

CAS# 123-39-7: 1

#### Canada - DSL/NDSL

CAS# 123-39-7 is listed on Canada's DSL List.

#### Canada - WHMIS

This product has a WHMIS classification of D2A, D2B.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

#### Canadian Ingredient Disclosure List

## Section 16: Other Information

MSDS Creation Date: 7/19/1999

Reversion Date: June 01, 2011

Version No.: 20110601002

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the*



*information for their particular purposes. In no event shall we m be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if we have been advised of the possibility of such damages.*