

Material Safety Data Sheet

N-Methylformamide, 99.5%

Section 1 - Chemical Product and Company Identification

MSDS Name: N-Methylformamide, 99.5%

Synonyms: N-Methylformamide; Monomethylformamide.

Company Identification:

Taian Health Chemical Co., Ltd

Address: No.96 Great wall Road, Taian city, shandong province, China

Tel : 0086-538-8997076

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Emergency telephone:

Tel:0086-18653805733

Chemical emergency Advisory Hotline 0086-538-8997076

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
123-39-7	N-Methylformamide	>99	204-624-6

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

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 Fighting Measures

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

Physical State: Liquid

Appearance: clear, colorless

Odor: weak odor

pH: 6-8 (250 g/l aq soln)

Vapor Pressure: 0.25 mmHg @ 25 deg C

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: 1.9 mPa.s @ 20 deg C

Boiling Point: 199-201 deg C

Freezing/Melting Point: -3.2 deg C

Decomposition Temperature: Not available.

Solubility: Soluble.

Specific Gravity/Density: 1.003 g/cm³

Molecular Formula: C₂H₅NO

Molecular Weight: 59.06

Section 10 - Stability and Reactivity

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, oxides of nitrogen, 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

DOT (US)

Not Dangerous goods

IMDG

Not Dangerous goods

IATA Not dangerous goods

Section 15 - 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 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.

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 - Additional Information

References: United Nations Recommendations on the Transport of Dangerous Goods - Model Regulations, "

United Nations Global chemicals unified classification and labeling system

MSDS Creation Date: March 22, 2013

The above information is believed to be accurate and represents the best information we provide. However, we do not have a product of merchantability or any other warranties, express or implied, for this information, we do not accept any responsibility for the result from its use. Users should make their own investigations to determine PARTICULAR PURPOSE.