

# SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product identifier**

Product name : N,N-Dimethylacetamide  
CAS No. : 127-19-5

**Manufacturer or supplier's details**

Company : Heynova (Shanghai) New Material Technology CO., Ltd  
Address : Building 3, No. 690 Bibo Road, Pudong New Area, Shanghai, China  
Telephone : +86-178-2110-2608  
E-mail address : info@heynovachem.com

## 2. HAZARDS IDENTIFICATION

**Emergency Overview**

**Appearance** : liquid  
**Color** : colorless

Combustible liquid. May be harmful if swallowed or in contact with skin. Causes eye irritation. Harmful if inhaled. May cause drowsiness or dizziness. May cause cancer. May damage fertility or the unborn child. Causes damage to organs (Central nervous system, Liver). Causes damage to organs (Liver, Respiratory system) through prolonged or repeated exposure.

**GHS Classification**

Flammable liquids : Category 4  
Acute toxicity (Oral) : Category 5  
Acute toxicity (Inhalation) : Category 4  
Acute toxicity (Dermal) : Category 5  
Serious eye damage/eye irritation : Category 2B  
Carcinogenicity : Category 1B  
Reproductive toxicity : Category 1B  
Specific target organ toxicity - single exposure : Category 1 (Central nervous system, Liver)  
Specific target organ toxicity - single exposure : Category 3 (Narcotic effects)  
Specific target organ toxicity - repeated exposure : Category 1 (Liver, Respiratory system)

**GHS label elements**

Hazard pictograms :



Signal Word :

Danger

|                          |   |
|--------------------------|---|
| Hazard Statements        | : H227 Combustible liquid.<br>H303 + H313 May be harmful if swallowed or in contact with skin.<br>H320 Causes eye irritation.<br>H332 Harmful if inhaled.<br>H336 May cause drowsiness or dizziness.<br>H350 May cause cancer.<br>H360 May damage fertility or the unborn child.<br>H370 Causes damage to organs (Central nervous system, Liver).<br>H372 Causes damage to organs (Liver, Respiratory system) through prolonged or repeated exposure.   |
| Precautionary Statements | : <b>Prevention:</b><br>P201 Obtain special instructions before use.<br>P202 Do not handle until all safety precautions have been read and understood.<br>P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.<br>P260 Do not breathe mist or vapors.<br>P264 Wash skin thoroughly after handling.<br>P270 Do not eat, drink or smoke when using this product.<br>P271 Use only outdoors or in a well-ventilated area.<br>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.<br><b>Response:</b><br>P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.<br>P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.<br>P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor.<br>P337 + P313 If eye irritation persists: Get medical advice/ attention.<br>P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.<br><b>Storage:</b><br>P403 + P233 Store in a well-ventilated place. Keep container tightly closed.<br>P403 + P235 Store in a well-ventilated place. Keep cool.<br>P405 Store locked up.<br><b>Disposal:</b><br>P501 Dispose of contents/ container to an approved waste disposal plant. |

**Physical and chemical hazards**

Combustible liquid.

**Health hazards**

May be harmful if swallowed. Harmful if inhaled. May be harmful in contact with skin. Causes eye irritation. May cause cancer. May damage fertility or the unborn child. Causes damage to organs. May cause drowsiness or dizziness. Causes damage to organs through prolonged or repeated exposure.

**Environmental hazards**

Not classified based on available information.

**Other hazards which do not result in classification**

None known.

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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Substance

**Components**

| Chemical name         | CAS RN   | Concentration (% w/w) |
|-----------------------|----------|-----------------------|
| N,N-Dimethylacetamide | 127-19-5 | >= 99 -<= 100         |

#### 4. FIRST AID MEASURES

|   |   |  |
|---|---|--|
| If inhaled  | : | Remove person to fresh air and keep comfortable for breathing.<br>Call a POISON CENTER or doctor/ physician.                             |
| In case of skin contact                                     | : | Take off all contaminated clothing immediately.<br>Wash off with soap and plenty of water.<br>Call a POISON CENTER or doctor/ physician. |
| In case of eye contact                                      | : | Rinse with plenty of water.<br>If easy to do, remove contact lens, if worn.<br>Call a POISON CENTER or doctor/ physician.                |
| If swallowed  | : | Call a POISON CENTER or doctor/ physician.<br>Rinse mouth.   |
| Most important symptoms and effects, both acute and delayed | : | None known.  |

#### 5. FIRE-FIGHTING MEASURES

|  |   |  |
|--|---|--|
| Suitable extinguishing media                   | : | Dry powder, Foam, Water spray, Carbon dioxide (CO2)  |
| Specific hazards during fire fighting          | : | Take care as it may decompose upon combustion or in high temperatures to generate poisonous fume.  |
| Specific extinguishing methods                 | : | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.<br>Immediately evacuate personnel to safe areas.<br>Remove undamaged containers from fire area if it is safe to do so. |
| Special protective equipment for fire-fighters | : | Use personal protective equipment.   |

#### 6. ACCIDENTAL RELEASE MEASURES

|   |   |  |
|---|---|--|
| Personal precautions, protective equipment and emergency procedures | : | Wear suitable protective equipment.<br>Keep people away from and upwind of spill/leak.<br>Ensure adequate ventilation.<br>Entry to non-involved personnel should be controlled around the leakage area by roping off, etc. |
| Environmental precautions   | : | Prevent product from entering drains.  |
| Methods and materials for containment and cleaning up               | : | Collect as much of the spill as possible with a suitable absorbent material.   |

#### 7. HANDLING AND STORAGE

##### Handling

|                         |   |   |
|-------------------------|---|---|
| Technical measures      | : | Prevent generation of vapor or mist.<br>Take precautionary measures against static discharge.<br>Use explosion-proof equipment. |
| Local/Total ventilation | : | Ensure adequate ventilation.<br>Handle product only in closed system or provide appropriate exhaust                             |

ventilation at machinery.  
Use a local exhaust ventilation.

Advice on safe handling : Avoid contact with skin, eyes and clothing.  
Wear personal protective equipment.  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Wash hands and face thoroughly after handling.

Avoidance of contact : Oxidizing agents

### Storage

Conditions for safe storage : Keep container tightly closed.  
Store in a cool and shaded area.  
Keep in a well-ventilated place.  
Store locked up.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Ingredients with workplace control parameters

| Components                | CAS RN   | Value type<br>(Form of exposure) | Control parameters<br>/ Permissible concentration | Basis  |
|---------------------------|----------|----------------------------------|---|--------|
| N,N-Dimethylacetamide     | 127-19-5 | PC-TWA                           | 20 mg/m <sup>3</sup>                              | CN OEL |
| Further information: Skin |          |                                  |   |        |
|                           |          | TWA                              | 10 ppm  | ACGIH  |

Engineering measures : Install a closed system or local exhaust.  
Also install safety shower and eye bath.

### Personal protective equipment

Respiratory protection : Gas mask  
Self-contained breathing apparatus

Eye/face protection : Safety glasses  
Safety goggles  
Face-shield

Skin and body protection : Impervious protective clothing

Hand protection : Impervious gloves

\*Use personal protective equipment(PPE) approved under appropriate government standards and follow local and national regulations.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Color : colorless

Odor : No data available

Odor Threshold : 47 ppm

pH : No data available

Melting point/freezing point : -20 °C

Boiling point/boiling range : 165 °C

Flash point : 66 °C

|  |                       |
|--|-----------------------|
| Evaporation rate                                 | : No data available   |
| Flammability                                     | : No data available   |
| Upper explosion limit / Upper flammability limit | : 11.5 %(V)           |
| Lower explosion limit / Lower flammability limit | : 1.8 %(V)            |
| Vapor pressure                                   | : 0.33 kPa (20 °C)    |
| Relative vapor density                           | : 3.01                |
| Relative density                                 | : 0.94                |
| Solubility(ies)<br>Water solubility              | : completely miscible |
| Solubility in other solvents                     | : No data available   |
| Partition coefficient: n-octanol/water           | : -0.77               |
| Autoignition temperature                         | : 490 °C              |
| Decomposition temperature                        | : No data available   |
| Viscosity<br>Viscosity, dynamic                  | : 0.97 mPa.s ( 40 °C) |
| Viscosity, kinematic                             | : No data available   |
| Molecular weight                                 | : 87.12 g/mol         |

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## 10. STABILITY AND REACTIVITY

|                                    |  |
|------------------------------------|--|
| Reactivity                         | : No data available  |
| Chemical stability                 | : Stable under normal conditions.  |
| Possibility of hazardous reactions | : None under normal processing.  |
| Conditions to avoid                | : Electrical spark<br>Open flame   |
| Incompatible materials             | : Oxidizing agents   |
| Hazardous decomposition products   | : Carbon monoxide, Carbon dioxide (CO <sub>2</sub> ), Nitrogen oxides (NO <sub>x</sub> ) |

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## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

#### Product:

|                           |  |
|---------------------------|--|
| Acute oral toxicity       | : Assessment: The component/mixture is minimally toxic after single ingestion.       |
| Acute inhalation toxicity | : Assessment: The component/mixture is moderately toxic after short term inhalation. |

Acute dermal toxicity : Assessment: The component/mixture is minimally toxic after single contact with skin.

**Components:**

**N,N-Dimethylacetamide:**

Acute oral toxicity : LD50 (Rat): 4,300 mg/kg  
Assessment: The component/mixture is minimally toxic after single ingestion.

Acute inhalation toxicity : LC50 (Rat): 2475 ppm  
Exposure time: 1 h  
Test atmosphere: gas  
Assessment: The component/mixture is moderately toxic after short term inhalation.

Acute dermal toxicity : LD50 (Rabbit): 2,240 mg/kg  
Assessment: The component/mixture is minimally toxic after single contact with skin.

Acute toxicity (other routes of administration) : LD50 (Rat): 2,750 mg/kg  
Application Route: Intraperitoneal injection

**Skin corrosion/irritation**

**Product:**

Result : No skin irritation

**Components:**

**N,N-Dimethylacetamide:**

Result : No skin irritation

**Serious eye damage/eye irritation**

**Product:**

Result : Mild eye irritation

**Components:**

**N,N-Dimethylacetamide:**

Result : Mild eye irritation

**Respiratory or skin sensitization** : No information available.

**Germ cell mutagenicity** : No information available.

**Carcinogenicity**

**Product:**

Carcinogenicity - Assessment : Presumed to have carcinogenic potential for humans

**Components:**

**N,N-Dimethylacetamide:**

Carcinogenicity - Assessment : Presumed to have carcinogenic potential for humans

**Reproductive toxicity**

**Product:**

Reproductive toxicity - Assessment : Presumed human reproductive toxicant

**Components:**
**N,N-Dimethylacetamide:**

Reproductive toxicity - Assessment : Presumed human reproductive toxicant

**STOT-single exposure**
**Product:**

Assessment : May cause drowsiness or dizziness.

Target Organs : Central nervous system, Liver  
 Assessment : Causes damage to organs.

**Components:**
**N,N-Dimethylacetamide:**

Assessment : May cause drowsiness or dizziness.

Target Organs : Central nervous system, Liver  
 Assessment : Causes damage to organs.

**STOT-repeated exposure**
**Product:**

Target Organs : Liver, Respiratory system  
 Assessment : Causes damage to organs through prolonged or repeated exposure.

**Components:**
**N,N-Dimethylacetamide:**

Target Organs : Liver, Respiratory system  
 Assessment : Causes damage to organs through prolonged or repeated exposure.

**Repeated dose toxicity** : No information available.

**Aspiration toxicity** : No information available.

**RTECS No.** : AB7700000 (N,N-Dimethylacetamide)

**12. ECOLOGICAL INFORMATION**
**Ecotoxicity**

No data available

**Persistence and degradability**
**Components:**
**N,N-Dimethylacetamide:**

Biodegradability : Biochemical oxygen demand  
 Biodegradation: 80 %

**Bioaccumulative potential**
**Components:**
**N,N-Dimethylacetamide:**

Bioaccumulation : Bioconcentration factor (BCF): 3

Partition coefficient: n-octanol/water : -0.77

**Mobility in soil****Components:****N,N-Dimethylacetamide:**

Distribution among environmental compartments : Koc: 9

**Other adverse effects**

No data available

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**13. DISPOSAL CONSIDERATIONS****Disposal methods**

Waste from residues : Disposal in accordance with local and national regulations.  
Take precautions against ignition or explode.  
Entrust disposal to a licensed waste disposal company.

Contaminated packaging : Disposal in accordance with local and national regulations.  
Before disposal of used container, remove contents completely.

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**14. TRANSPORT INFORMATION****International Regulations****IATA-DGR**

UN/ID No. : Not applicable  
Proper shipping name : Not applicable  
Class : Not applicable  
Subsidiary risk : Not applicable  
Packing group : Not applicable

**IMDG-Code**

UN number : Not applicable  
Proper shipping name : Not applicable  
Class : Not applicable  
Subsidiary risk : Not applicable  
Packing group : Not applicable  
EmS Code : Not applicable

**Domestic regulation****GB 6944/12268**

UN number : Not applicable  
Proper shipping name : Not applicable  
Class : Not applicable  
Subsidiary risk : Not applicable  
Packing group : Not applicable

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**15. REGULATORY INFORMATION****The ingredients of this product are reported in the following inventories:**

TCSI : On the inventory, or in compliance with the inventory

TSCA : All substances listed as active on the TSCA inventory

AIIC : On the inventory, or in compliance with the inventory



|       |   |  |
|-------|---|--|
| DSL   | : | All components of this product are on the Canadian DSL |
| ENCS  | : | On the inventory, or in compliance with the inventory  |
| ISHL  | : | On the inventory, or in compliance with the inventory  |
| KECI  | : | On the inventory, or in compliance with the inventory  |
| PICCS | : | On the inventory, or in compliance with the inventory  |
| IECSC | : | On the inventory, or in compliance with the inventory  |
| NZIoC | : | Not in compliance with the inventory                   |
| TECI  | : | On the inventory, or in compliance with the inventory  |

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## 16. OTHER INFORMATION

|               |   |            |
|---------------|---|------------|
| Revision Date | : | 2024/09/22 |
| Date format   | : | yyyy/mm/dd |

### Disclaimer

This SDS was prepared sincerely based on the information obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. The products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling operations, sufficient care should be taken, in addition to the safety measures suitable for the given situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.