

# Safety Data Sheet

河北广兴化工有限公司  
河北省邢台市新河县堂阳路

Hebei Guangxing Chemical Industry Co.,Ltd.

Tangyang Road,Xinhe County ,Xingtai City, Hebei province ,  
China



## N,N'-Dimethyl urea

### 1.1.Substance Name: N,N'-Dimethyl urea

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

Synonyms: 1,3-Dimethylharnstoff

1,3-Dimethylurea

Dimethylharnstoff

N,N'-Dimethylharnstoff

N,N'-Dimethylurea

IUPAC NAMES:

1,3-Dimethylurea

1,3-dimethylurea (DMU)

N,N'-Dimethylurea

Molecular formula: C<sub>3</sub>H<sub>8</sub>N<sub>2</sub>O

EC number: 202-498-7

CAS number: 96-31-1

PRODUCT CODE: 2014003

### 1.2. Relevant identified uses of the substance and uses advised against

This substance is used in the following products: pH regulators and water treatment

products and laboratory chemicals.

This substance is used in the following areas: health services and scientific research

and development and pharmaceutical industry and agrochemicals.

Uses advised against: NONE

### 1.3. Details of the Supplier of the Safety Data Sheet

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## N,N'-Dimethyl urea

Company Identification:

Hebei Guangxing Chemical Industry Co.,Ltd.

Tangyang Road,Xinhe County ,Xingtai City, Hebei province , China

ZIP CODE: 055650

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SDS No.: 140002-1

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**1.4 EMERGENCY:** COMPARTY: 0086-0319-4918188

### Section 2 – Hazards Identification

#### 2.1 Classification of the substance or mixture

Not Classified

**Classification according to EU Directives 1999/45/EC**

Not Classified

**Rules of Classification according to China GB30000.20-2013**

Not Classified

#### 2.2 Label elements

**Labelling according Regulation (EC) No 1272/2008 [CLP]**

None

**According to European Directive 1999/45/EC as amended.**

None

**According to China**

**GB30000.20-2013**

None

**2.3 Other hazards :**

None

**2.4 Additional information**

NONE.

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## N,N'-Dimethyl urea

### Section 3 - Composition, Information on Ingredients

Component	CAS-No.	Distribution Ratio of Impuritie, %	Classification according to Regulation (EC) No 1278/2008 (CLP).	Classification according to 67/548/EEC
N,N'-Dimethylurea	96-31-1	97.5 Min	NO	NO
Methylurea	598-50-5	0.7 Max	NO	NO
Trimethylurea	632-14-4	0.5 Max	NO	NO
Biruet	108-19-0	0.3 Max	 WARNING H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation.	 xi:irritant R36/37/38 S26 S36
Methylamine	74-89-5	0.3 Max	 DANGER Physical Hazards : Flam.Gas H220 Flam.Gas.1 H332 Acute Tox.4 H318 Eye Dam. 1 H315 Skin Irrit. 2	 R26 R27 R12 R10 S24 S25
Urea	57-13-6	0.2 Max	NO	NO

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Water	7732-18-5	0.5 Max	NO	NO
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### 3.1 Mixture

## Section 4 - First Aid Measures

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

#### If inhaled

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

#### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 4.2 Most important symptoms and effects, both acute and delayed

NA

### 4.3 Indication of immediate medical attention and special treatment needed

No data available

## Section 5 - Fire Fighting Measures

### 5.1 Extinguishing media

Suitable extinguishing media

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Use water spray, dry chemical or carbon dioxide. Sand or foam extinguishing agents.

Do not apply a direct water stream on material. Use water spray to cool containers.

### 5.2 Special hazards arising from the substance or mixture

None.

### 5.3 Precautions for fire-fighters

Wear self-contained breathing apparatus for fire fighting if necessary. Wear protective clothing to prevent contact with skin and eyes.

## Section 6 - Accidental Release Measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Ensure adequate ventilation.

Evacuate personnel to safe areas.

Notify the police and fire brigade immediately.

If outside keep by standers upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorized personnel.

Do not

attempt to take action without suitable protective clothing.

### 6.2 Environmental precautions

Do not let product enter drains, sewers or watercourses.

Turn leaking containers leak-side up to prevent the escape of liquid.

### 6.3 Methods and materials for containment and cleaning up

Transfer to a container for disposal or recovery. Soak up with inert absorbent material

and dispose of as hazardous waste. Transfer to a closable, labeled salvage container

for disposal by an appropriate method.

### 6.4 Reference to other sections

For disposal see section 13.

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### Section 7 - Handling and Storage

#### 7.1 Precautions for safe handling

Avoid contact with skin and eyes.

Normal measures for preventive fire protection.

#### 7.2 Conditions for safe storage, including any incompatibilities

Store at temperature -20-80°C.

Keep container tightly closed in a dry and well-ventilated place.

Avoid deposition of dust.

Segregate from nitrites.

Tends to cake.

Protect against moisture.

**Storage stability:** Storage duration: 24 Months

#### 7.3 Specific end use(s) NA

### Section 8 - Exposure Controls, Personal Protection

#### 8.1 Control parameters

**Exposure Limits:** None established

#### 8.2 Exposure controls

##### 8.2.1 Appropriate engineering controls

Ensure there is sufficient ventilation of the area.

Handle in accordance with good industrial hygiene and safety practice. Wash hands

before breaks and at the end of workday.

##### 8.2.2 Personal protective equipment

Self-contained breathing apparatus must be available in case of emergency

**Hand protection** Impermeable gloves must be worn.

**Eye/face protection** Tightly fitting safety goggles.

##### **Skin protection**

Handle with gloves. Gloves must be inspected prior to use.

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**Body Protection** Complete suit protecting against chemicals .

**Respiratory protection:** Breathing protection if dusts are formed. Wear a protective clothing. Avoid inhalation of dust.

### 8.2.3 Environmental exposure controls:

Avoid the substance into the water.

## Section 9 - Physical and Chemical Properties

### Information on basic physical and chemical properties

a) Form:	flaky crystals	
b) Odour:	amine-like	
c) Colour:	colorless to white	
d) pH value:	6.5 - 9.5	( 100 g/l, 20 °C)
e) melting point(decomposition):	102-106 °C	
f) Boiling point:	approx. 260 °C	( 1.013 bar)
g) Vapour pressure:	6 mbar	( 115 °C)
h) Density:	1.14 g/cm <sup>3</sup>	( 20 °C)
i) Bulk density:	500 kg/m <sup>3</sup>	
j) Partitioning coefficient noctanol/water (log Pow):	0.783	

## Section 10 - Stability and Reactivity

### 10.1 Reactivity

Stable under normal conditions.

### 10.2 Chemical stability

Chemical Stable.

### 10.3 Possibility of hazardous reactions

no data available

### 10.4 Conditions to avoid

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## N,N'-Dimethyl urea

Mineral acids and mineral alkali

### 10.5 Incompatible materials

Strong oxidizing agents

### 10.6 Hazardous decomposition products

Methylamine

## Section 11 - Toxicological Information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 4 000 mg/kg bw (rat)

Demal:

no data available

Inhalation:

no data available

Skin corrosion/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

#### Reproductive toxicity

no data available

#### Potential health effects

no data available

### 11.2 Additional Information

NA

## Section 12 - Ecological Information

### 12.1 Toxicity

#### Short term

DIN 38412 Part 15 static

**Acute and prolonged toxicity to fish:** LC50(96 hour): > 10000mg/L ( golden orfe )

**Acute toxicity to aquatic invertebrates** EC50(48 hour): 500mg/L

(Directive 84/449/EEC, C.2 Daphnia magna )

EC50(96 hour): >230mg/L

(Pseudokirchnerella subcapitata)

#### Long term

Scientifically unjustified

**Chemical oxygen demand (COD):** 1,100 mg/g

**Biochemical oxygen demand (BOD):** Incubation period 5 d: < 5 mg/g



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### 12.2 Persistence and degradability Biodegradation:

Test method: OECD 301 A (new version) (aerobic), activated sludge, domestic

Method of analysis: DOC reduction

**Degree of elimination:** approx. 90 - 100 % (21 d)

**Evaluation:** Readily biodegradable (according to OECD criteria).

**12.3 Bioaccumulative potential** Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

**12.4 Mobility in soil** no data available

**12.5 Results of PBT and vPvB assessment** no data available

**12.6 Other adverse effects**

**Toxicity to aquatic plants:**

DIN 38412 Part 9 green algae/EC50 (72 h): > 500 mg/l

**Toxicity to microorganisms:**

DIN 38412 Part 8 bacterium/EC50 (17 h): > 10,000 mg/l

**Other ecotoxicological advice:**

Do not release untreated into natural waters.

## Section 13 - Disposal Considerations

**13.1 Product :** Dispose of in accordance with local regulations.

**13.2 Contaminated packaging:** Uncleaned empties should be disposed of in the same manner as the contents.

## Section 14 - Transport Information

### 14.1 UN-Number

ADR/RID: - IMDG: - IATA: -

### 14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

### 14.3 Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

### 14.4 Packaging group

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ADR/RID: - IMDG: - IATA: -

### 14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

### 14.6 Special precautions for users

No data available

**14.7 Shipping Description:** Non-Regulated

**Hazard Class:** NA

**ID No.:** NA

**PG:** NA

**Labels:** None

## Section 15 - Regulatory Information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006/ No.1272/2008

This safety datasheet complies with the requirements of Regulation (CHI NA) GB30000.18-2013; GB30000.20-2013

### APPLICABLE LAWS AND REGULATIONS

The occupational disease prevention law of the People's Republic of China NA

The catalog of occupational-disease-inductive factors classification: NA

The catalog of occupational disease: NA

### HAZARDOUS CHEMICAL MATERIALS SAFETY MANGEMENT REGULATIONS

The catalog of dangerous chemicals: NA

The dangerous chemicals of major hazard identification: NA

The list of the first batch of key supervision of dangerous chemicals: NA

The environmental management measures of dangerous chemicals (trial): NA

### THE REGULATIONS OF LABOUR PROTECTION IN THE WORKPLACES WHERE TOXIC SUBSTANCES ARE USED

The catalog of high toxic substances: NA

Chemicals import and toxic chemicals import and export environment management regulations for the first time NA

The catalog of China's strict limits on import and export of toxic chemicals 2012: NA

Measures for the administration of new chemical substance environment

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### OTHER INTERNATIONAL REGULATIONS

Product ingredient list column names in the information below:

TSCA:	YES
DSL:	YES
NDSL:	YES
AICS:	YES
NZIoC:	YES



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KECI:	YES
PICCS:	YES
IECSC:	YES

### 15.2 Chemical Safety Assessment

no data available

## Section 16 - Additional Information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide.

THE PRODUCT WHEN USED TOGETHER WITH OTHER SUBSTANCE, THE HARMFULNESS, TOXICITY AND CHEMICAL PROPERTIES VARY, AND DEPEND ON THE MANUFACTURING OR OTHER PROCESSES. THE USER SHOULD MEASURE THE DAMAGE AND INFORM THE OPERATIONS AND PROCESSING PEOPLE.

EFFECTIVE DATE: 05 Mar., 2026  
UPDATA DATE: 05 May., 2024