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: C3H8N2O

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:

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SDS No.: 140002-1

ISSUE DATE: 05 May., 2014

REVISED DATE: 05 May., 2022

UPDATA DATE: 05 May., 2024

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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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	97.5Min	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 seriou eye irritation. H335 May s 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

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℃.
Keep container tightly closed in a dry and ell-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

8.2.1Appropriate 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/cm3	(20 °C)
i) Bulk density:	500 kg/m3	
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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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

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