

SAFETY DATA SHEET

Version: v1
Revision Date: 2024-01-26
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name : 1,3-Dimethyl-2-imidazolidinone
Product Number : D109180
Brand : aladdin
CAS-No. : 80-73-9

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances.

1.3 Details of the supplier of the safety data sheet

Company : Shanghai Aladdin Biochemical Tech Co.,Ltd
Address : 36 Xinjinqiao Road, Shanghai
Telephone : 400-620-6333
Fax : no data available

1.4 Emergency telephone number

Emergency Phone : 0532-83889090

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Acute toxicity, oral (Category 4), H302

Severe eye damage / eye irritation (Category 1), h318

Reproductive toxicity (Category 2), h361

Acute (short-term) aquatic hazard (Category 3), H402

2.2 GHS Label elements, including precautionary statements

Pictogram



Danger

Signal word

Hazard statement(s)

H302

Harmful if swallowed

H318

Causes serious eye damage

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H361	Suspected of damaging fertility or the unborn child
H402	Harmful to aquatic life
Precautionary statement(s)	
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P264	Wash hands [and ...] thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P310	Immediately call a POISON CENTER or doctor/physician.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container to an approved waste disposal plant.
P301+P312+P330	IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: N,N'-Dimethyleneurea DMEU DMI
Formula	: C5H10N2O
Molecular weight	: 114.15
CAS No.	: 80-73-9
EC-NO.	: 201-304-8

Component	Classification	Concentration
1,3-Dimethyl-2-imidazolidinone	no data available	GC-Headspace tested, ≥99.8% (GC)

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air.
In case of skin contact
Wash off with soap and plenty of water. Consult a physician.
In case of eye contact
Flush eyes with water as a precaution.
If swallowed
Do NOT induce vomiting. 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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

no data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
Water,Foam,Carbon dioxide (CO₂),Dry powder
Unsuitable extinguishing media
no data available

5.2 Special hazards arising from the substance or mixture

Carbon oxide, nitrogen oxide Flammable Vapor is heavier than air, so it can spread over the ground. It forms an explosive mixture with air under rapid heating A fire may cause the generation of hazardous gases or vapors

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

no data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool place. Keep the container closed and store in a dry and ventilated place. Open containers must be carefully resealed and kept in an upright position to prevent leakage. Hygroscopic aerated storage

7.3 Specific end use(s)

no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as

NIOSH (US) or EN166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be

selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a fullface respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Control of environmental exposure
If safety requires, prevent further leakage or spillage. Do not let the product enter the sewer.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance	no data available
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	8.2°C
f) Initial boiling point and boiling range	224-226 °C
g) Flash point	120 °C
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or explosive limits	no data available
k) Vapour pressure	no data available
l) Vapour density	no data available
m) Relative density	no data available
n) Water solubility	no data available
o) Partition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties N	no data available
t) Oxidizing properties N	no data available

9.2 Other safety information

no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

Strong heating

10.5 Incompatible materials

Strong oxidant, acyl chloride, phosphorous halide

10.6 Hazardous decomposition products

In case of fire, it will decompose into harmful substances- Carbon oxide, nitrogen oxide and other decomposition products

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 oral - rat - female - 300 - 2000 mg/kg

(OECD Test Guideline 423)

LD50 percutaneous rabbit male > 2000 mg/kg

(OECD Test Guideline 434)

Skin corrosion/irritation

Skin rabbit Results: mild irritation - 4 h (OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes rabbit Results: serious eye injury was caused. (OECD Test Guideline 405)

Respiratory or skin sensitisation

Local lymph node assay (LLNA) - mouse result: negative (OECD Test Guideline 429)

Germ cell mutagenicity

Ames test Escherichia coli / Salmonella typhimurium result: negative (ECHA) Mutagenicity (mammalian cell test): negative chromosome variation Chinese hamster lung cells Result: negative Mouse lymphoma test in mammalian cells in vitro Result: negative

Carcinogenicity

Iarc: all components in this product with a content greater than or equal to 0.1% have not been identified as known or possible carcinogens by IARC.

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Additional Information

Repeated toxicity - rat - male - oral - 28 days - level of no harmful effect observed - 30 mg/kg toxic effect registration of chemical substances: nj0660000

Unconsciousness, nausea, vomiting, diarrhea, spasm

To our knowledge, this chemical, physical and toxic property has not been fully studied.

SECTION 12: Ecological information

12.1 Toxicity

Semi static toxicity test on fish LC50 - *Oryzias latipes* (Japanese medaka) - > 100 mg/l - 96 h

(OECD Test Guideline 203)

Static test on *Daphnia magna* and other aquatic ridgeless EC50 - *Daphnia magna* - > 100 mg/l - 48 h

Toxicity of vertebrates (OECD Test Guideline 202)

Static test NOEC - *Daphnia magna* - > = 100 mg/l - 48 h

(OECD Test Guideline 202)

Static toxicity test on algae erc50 - *desmodesmus subspicatus* - > 100 mg/l

- 72 h

(OECD Test Guideline 201)

Static toxicity test on bacteria NOEC - activated sludge - 1000 mg/l - 3 h

(OECD Test Guideline 209)

12.2 Persistence and degradability

Biodegradable aerobic - exposure time 28 days Results: 5% - not easily biodegradable. (OECD Test Guideline 301f)

12.3 Bioaccumulative potential

Bioaccumulation *Cyprinus carpio* (carp) (1,3-dimethyl-2-imidazolinone) Bioconcentration factor (BCF): < 0.37

12.4 Mobility in soil

no data available

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12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

no data available

SECTION 13:

13.1 Disposal considerations

Product

ecycle to process, if possible. Consult your local regional authorities and an expert of disposal. You may be able to dissolve or mix material with a combustible solvent and little by little burn in a chemical incinerator equipped with an afterburner and scrubber system. If a large amount of the substance is burned at a time, an explosion may occur. Observe all federal, state and local regulations when disposing of the substance.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

DOT (US)

UN number: 2810	Packing group: III	Class: 6.1
Proper shipping name: 1,3-Dimethyl-2-imidazolidinone	Reportable Quantity(RQ): no data available	Poison Inhalation Hazard: No
Environmental Hazards: No		

IMDG

UN number: 2810	Packing group: III	EMS-No: No
Proper shipping name: 1,3-Dimethyl-2-imidazolidinone		

IATA

UN number: 2810	Packing group: III	Class: 6.1
Proper shipping name: 1,3-Dimethyl-2-imidazolidinone		

SECTION 15: Regulatory information

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

SECTION 16: Other information

Further information

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