

# SAFETY DATA SHEET

Version: v1  
Revision Date: 2024-01-10  
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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifiers

Product name : 2-Methyl-3-butyn-2-ol  
Product Number : M107736  
Brand : aladdin  
CAS-No. : 115-19-5

### 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)  
Flammable liquids (Category 3), H226

Acute toxicity, Oral (Category 4), H302

Serious eye damage/eye irritation (Category 1), H318

Reproductive toxicity (Category 2), H361

Specific target organ toxicity - single exposure (Category 3), Narcotic effects, H336

For the full text of the H-Statements mentioned in this Section, see Section 16.

### 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

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|                            |  |
|----------------------------|--|
| Hazard statement(s)        |  |
| H225                       | Highly Flammable liquid and vapor  |
| Precautionary statement(s) |  |
| P210                       | Keep away from heat, hot surface, sparks, open flames and other ignition sources. - No smoking.                                  |
| P233                       | Keep container tightly closed.   |
| P240                       | Ground/bond container and receiving equipment.   |
| P241                       | Use explosion-proof [electrical/ventilating/lighting/.../] equipment.  |
| P242                       | Use only non-sparking tools.   |
| P243                       | Take precautionary measures against static discharge.  |
| P261                       | Avoid breathing dust/fume/gas/mist/vapors/spray.   |
| P264                       | Wash hands [and ...] thoroughly after handling.  |
| P270                       | Do not eat, drink or smoke when using this product.  |
| P271                       | Use only outdoors or in a well-ventilated area.  |
| P280                       | Wear protective gloves/protective clothing/eye protection/face protection.   |
| P330                       | Rinse mouth.   |
| P301+P312                  | IF SWALLOWED: call a POISON CENTER/doctor/... IF you feel unwell.  |
| P302+P352                  | IF ON SKIN: wash with plenty of water.   |
| P303+P361+P353             | IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water [or shower].                         |
| P304+P340                  | IF INHALED: Remove person to fresh air and keep comfortable for breathing.   |
| P305+P351+P338             | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing. |
| P362+P364                  | Take off contaminated clothing and wash it before reuse.   |
| P370+P378                  | In case of fire: Use ... to extinguish.  |
| P405                       | Store locked up.   |
| P403+P233                  | Store in a well-ventilated place. Keep container tightly closed.   |
| P403+P235                  | Store in a well-ventilated place. Keep cool.   |
| P501                       | Dispose of contents/container to an approved waste disposal plant.   |

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

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

|                  |  |
|------------------|--|
| Synonyms         | : 3-Methyl-1-butyn-3-ol; Dimethyl ethynyl carbinol; 3-Methyl butynol |
| Formula          | : C <sub>5</sub> H <sub>8</sub> O                                    |
| Molecular weight | : 84.12  |
| CAS No.          | : 115-19-5   |
| EC-NO.           | : 204-070-5  |

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| Component             | Classification   | Concentration |
|-----------------------|--|---------------|
| 2-Methyl-3-butyn-2-ol | Flammable liquids Category 3; Acute toxicity Category 4; Serious eye damage/eye irritation Category 1; Reproductive toxicity Category 2; Specific target organ toxicity - single exposure Category 3; H226, H302, H318, H361, H336 | 98%           |

## 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. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). 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

Carbon dioxide (CO<sub>2</sub>) Foam Dry powder

Unsuitable extinguishing media

no data available

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

Carbon oxides Combustible. Pay attention to flashback. Vapors are heavier than air and may spread along floors. Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures.

### 5.3 Advice for firefighters

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Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

#### 5.4 Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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### SECTION 6: Accidental release measures

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

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. 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. Risk of explosion.

#### 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). Dispose of properly. Clean up affected area.

#### 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

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge. Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance. For precautions see section 2.2.

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

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

#### 7.3 Specific end use(s)

no data available

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

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## 8.2 Exposure controls

Appropriate engineering controls

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles

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.

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|   |  |
|---|--|
| a) Appearance                                   | form: liquid color: Colorless to light yellow  |
| b) Odour  | no data available  |
| c) Odour Threshold                              | no data available  |
| d) pH   | no data available  |
| e) Melting point/freezing point                 | 2.6°C  |
| f) Initial boiling point and boiling range      | 104°C  |
| g) Flash point                                  | 22 °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                             | 0.861-0.864  |
| n) Water solubility                             | It is miscible with water, acetone, benzene, fiber dissolving agent, carbon tetrachloride, cyclohexane, ethylene glycol, ethyl acetate, kerosene, methyl ethyl ketone, mineral alcohol, monoethanolamine, waste oil, petroleum ether, soybean oil and Stoddard solution. |

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- 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

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### 10.3 Possibility of hazardous reactions

Risk of explosion with: Copper alloys Copper Risk of ignition or formation of inflammable gases or vapours with:  
Oxidizing agents Exothermic reaction with: acids

### 10.4 Conditions to avoid

Warming.

### 10.5 Incompatible materials

Copper, Copper alloys, Strong oxidizing agents

### 10.6 Hazardous decomposition products

In the event of fire: see section 5

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male and female - 1,420 mg/kg

(OECD Test Guideline 401)

LC50 Inhalation - Rat - male and female - 4 h - > 21.3 mg/l - vapor

(OECD Test Guideline 403)

Dermal: No data available

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Skin corrosion/irritation

Skin - Rabbit Result: No skin irritation - 20 h (OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit Result: Causes serious eye damage. - 8 d Remarks: (ECHA)

Respiratory or skin sensitisation

in vivo assay - Guinea pig Result: Does not cause skin sensitization. Remarks: (ECHA)

Germ cell mutagenicity

Test Type: Ames test Test system: S. typhimurium Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471 Result: negative Test Type: In vivo micronucleus test Species: Mouse Application

Route: Intraperitoneal Method: OECD Test Guideline 474 Result: negative

Carcinogenicity

no data available

Reproductive toxicity

Suspected of damaging fertility. Suspected of damaging the unborn child.

Specific target organ toxicity - single exposure

inhalation (vapor) - May cause drowsiness or dizziness. - Central nervous system

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Additional Information

Repeated dose toxicity - Rat - male and female - Oral - NOAEL (No observed adverse effect

level) - 50 mg/kg - LOAEL (Lowest observed adverse effect level) - 200 mg/kg

To the best of our knowledge, the chemical, physical, and toxicological properties have not

been thoroughly investigated.

After absorption:

Drowsiness

ataxia (impaired locomotor coordination)

depressed respiration

Further data:

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

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## SECTION 12: Ecological information

### 12.1 Toxicity

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Toxicity to fish static test LC50 - *Leuciscus idus* (Golden orfe) - 3,400 mg/l - 96 h

(DIN 38412)

Toxicity to daphnia

and other aquatic

invertebrates

static test EC50 - *Daphnia magna* (Water flea) - > 500 mg/l - 48 h

(Directive 67/548/EEC, Annex V, C.2.)

Toxicity to algae static test EC50 - *Desmodesmus subspicatus* (green algae) - > 500mg/l - 72 h

Remarks: (ECHA)

Toxicity to bacteria Respiration inhibition EC50 - Sludge Treatment - > 1,000 mg/l - 30min

(ISO 8192)

## 12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 28 d Result: 0 % - Not readily biodegradable. (OECD Test Guideline 301F)

Biochemical Oxygen Demand (BOD) 20 mg/g Remarks: (External MSDS) Chemical Oxygen Demand (COD) 2,390

mg/g Remarks: (External MSDS) Ratio BOD/ThBOD < 20 %

## 12.3 Bioaccumulative potential

no data available

## 12.4 Mobility in soil

no data available

## 12.5 Results of PBT and vPvB assessment

no data available

## 12.6 Other adverse effects

Discharge into the environment must be avoided

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## SECTION 13:

### 13.1 Disposal considerations

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.



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## SECTION 14: Transport information

### DOT (US)

|  |  |   |
|--|--|---|
| UN number: 1987  | Packing group: II                          | Class: 3                                    |
| Proper shipping name: ALCOHOLS, N.O.S. (2-Methyl-3-butyn-2-ol) | Reportable Quantity(RQ): no data available | Poison Inhalation Hazard: no data available |
| Environmental Hazards: no                                      |  |   |

### IMDG

|  |                   |                           |
|--|-------------------|---------------------------|
| UN number: 1987  | Packing group: II | EMS-No: no data available |
| Proper shipping name: ALCOHOLS, N.O.S. (2-Methyl-3-butyn-2-ol) |                   |                           |

### IATA

|  |                   |          |
|--|-------------------|----------|
| UN number: 1987  | Packing group: II | Class: 3 |
| Proper shipping name: ALCOHOLS, N.O.S. (2-Methyl-3-butyn-2-ol) |                   |          |

## 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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