# **Material Safety Data Sheet**

Version 4.0 Revision Date 07/21/2010 Print Date 09/13/2011

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : 2-Methyl-3-butyn-2-ol

Product Number : 129763 Brand : Aldrich

Company : Sigma-Aldrich

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USA

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#### 2. HAZARDS IDENTIFICATION

### **Emergency Overview**

#### **OSHA Hazards**

Flammable liquid, Harmful by ingestion., Skin sensitiser, Irritant

### GHS Label elements, including precautionary statements

Pictogram



Signal word Danger

Hazard statement(s)

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction. H318 Causes serious eye damage.

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P280 Wear protective gloves/eye protection/face protection.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

**HMIS Classification** 

Health hazard: 2 Flammability: 3 Physical hazards: 0

**NFPA Rating** 

Health hazard: 2 Fire: 3 Reactivity Hazard: 0

#### **Potential Health Effects**

Inhalation May be harmful if inhaled. Causes respiratory tract irritation.Skin Harmful if absorbed through skin. Causes skin irritation.

**Eyes** Causes eye irritation. **Ingestion** Harmful if swallowed.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

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Synonyms : Dimethyl ethynyl carbinol

CAS-No.	EC-No.	Index-No.	Concentration
2-Methyl-3-butyn-2-ol			
115-19-5	204-070-5	-	-

#### 4. FIRST AID MEASURES

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

#### 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

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

#### 5. FIRE-FIGHTING MEASURES

# Suitable extinguishing media

For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

# Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

# **Further information**

Use water spray to cool unopened containers.

#### **6. ACCIDENTAL RELEASE MEASURES**

#### Personal precautions

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

#### **Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

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

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

#### 7. HANDLING AND STORAGE

#### Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

# Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in cool place.

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#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

# Personal protective equipment

### **Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face 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).

#### **Hand 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.

### Eye protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

# Skin and 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.

### Hygiene measures

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

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

### **Appearance**

Form liquid
Colour colourless

#### Safety data

pH no data available

Melting point 2.6 °C (36.7 °F) - lit.

Boiling point 104 °C (219 °F) - lit.

Flash point 22 °C (72 °F) - closed cup

Ignition temperature 350 °C (662 °F)

Lower explosion limit 1.8 %(V)
Upper explosion limit 16.6 %(V)

Vapour pressure 20 hPa (15 mmHg) at 20 °C (68 °F)

Density 0.868 g/mL at 25 °C (77 °F)

Water solubility completely miscible

Partition coefficient: log Pow: 0.32

n-octanol/water

# 10. STABILITY AND REACTIVITY

# **Chemical stability**

Stable under recommended storage conditions.

### Possibility of hazardous reactions

Vapours may form explosive mixture with air.

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#### Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight.

#### Materials to avoid

Oxidizing agents, acids, Acid anhydrides, Copper

### **Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides

#### 11. TOXICOLOGICAL INFORMATION

#### **Acute toxicity**

LD50 Oral - rat - 1,950 mg/kg

LC50 Inhalation - mouse - 2,000 mg/m3

Remarks: Behavioral:Somnolence (general depressed activity). Behavioral:Ataxia. Lungs, Thorax, or Respiration:Other changes.

#### Skin corrosion/irritation

no data available

# Serious eye damage/eye irritation

no data available

#### Respiratory or skin sensitization

May cause allergic skin reaction.

### Germ cell mutagenicity

no data available

### Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable,

possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a

carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or

anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a

carcinogen or potential carcinogen by OSHA.

## Reproductive toxicity

no data available

#### Specific target organ toxicity - single exposure (GHS)

no data available

#### Specific target organ toxicity - repeated exposure (GHS)

no data available

### **Aspiration hazard**

no data available

#### Potential health effects

**Inhalation** May be harmful if inhaled. Causes respiratory tract irritation.

**Ingestion** Harmful if swallowed.

**Skin** Harmful if absorbed through skin. Causes skin irritation.

**Eyes** Causes eye irritation.

#### **Additional Information**

# 12. ECOLOGICAL INFORMATION

### **Toxicity**

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 3,290 mg/l - 96 h

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### Persistence and degradability

no data available

#### Bioaccumulative potential

no data available

### Mobility in soil

no data available

#### PBT and vPvB assessment

no data available

#### Other adverse effects

no data available

# 13. DISPOSAL CONSIDERATIONS

#### **Product**

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

### Contaminated packaging

Dispose of as unused product.

#### 14. TRANSPORT INFORMATION

DOT (US)

UN-Number: 1993 Class: 3 Packing group: III

Proper shipping name: Flammable liquids, n.o.s.

Marine pollutant: No

Poison Inhalation Hazard: No

**IMDG** 

UN-Number: 1993 Class: 3 Packing group: III EMS-No: F-E, S-E

Proper shipping name: FLAMMABLE LIQUID, N.O.S.

Marine pollutant: No

**IATA** 

UN-Number: 1993 Class: 3 Packing group: III

Proper shipping name: Flammable liquid, n.o.s.

### 15. REGULATORY INFORMATION

### **OSHA Hazards**

Flammable liquid, Harmful by ingestion., Skin sensitiser, Irritant

### **DSL Status**

All components of this product are on the Canadian DSL list.

#### **SARA 302 Components**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

#### **SARA 313 Components**

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard

#### **Massachusetts Right To Know Components**

2-Methyl-3-butyn-2-ol CAS-No. Revision Date 115-19-5 1993-04-24

Pennsylvania Right To Know Components

2-Methyl-3-butyn-2-ol CAS-No. Revision Date 115-19-5 1993-04-24

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# **New Jersey Right To Know Components**

2-Methyl-3-butyn-2-ol

CAS-No. 115-19-5 Revision Date 1993-04-24

# California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### 16. OTHER INFORMATION

#### **Further information**

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