SIGMA-ALDRICH

Material Safety Data Sheet

Version 3.0 Revision Date 08/22/2009 Print Date 09/12/2011

1. PRODUCT AND COMPANY IDENTIFICATION

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

Product Number : W503908 Brand : Aldrich

Company : Sigma-Aldrich

3050 Spruce Street

SAINT LOUIS MO 63103

USA

Telephone : +1 800-325-5832 Fax : +1 800-325-5052 Emergency Phone # : (314) 776-6555

2. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : 1,1-Dimethylallyl alcohol

3-Hydroxy-3-methyl-1-butene

Formula : C₅H₁₀O Molecular Weight : 86.13 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
2-Methylbut-3-en-2-ol			
115-18-4	204-068-4	-	-

3. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards

Flammable Liquid, Irritant

HMIS Classification

Health Hazard: 2 Flammability: 3 Physical hazards: 0

NFPA Rating

Health Hazard: 2 Fire: 3 Reactivity Hazard: 0

Potential Health Effects

InhalationSkinMay be harmful if inhaled. Causes respiratory tract irritation.May be harmful if absorbed through skin. Causes skin irritation.

Eyes Causes eye irritation.

Ingestion May be harmful if swallowed.

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

Flammable properties

Flash point 11 °C (52 °F) - closed cup

Ignition temperature 380 °C (716 °F)

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 for cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

7. HANDLING AND STORAGE

Handling

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

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

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.

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 multipurpose 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.

Eye protection

Face shield and safety glasses

Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

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 clear, liquid
Colour colourless

Safety data

pH 9.0 - 10.0 at 100 g/l at 20 °C (68 °F)

Melting point 11 °C (52 °F)

Boiling point 98 - 99 °C (208 - 210 °F) - lit.

Flash point 11 °C (52 °F) - closed cup

Ignition temperature 380 °C (716 °F)

Lower explosion limit no data available

Upper explosion limit no data available

Vapour pressure 137 hPa (103 mmHg) at 50 °C (122 °F)

Density 0.824 g/mL at 25 °C (77 °F)

Water solubility no data available Partition coefficient: log Pow: 0.66

n-octanol/water

10. STABILITY AND REACTIVITY

Storage stability

Stable under recommended storage conditions.

Conditions to avoid

Heat, flames and sparks.

Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

Hazardous reactions

Vapours may form explosive mixture with air.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

LD50 Intraperitoneal - rat - 1,315 mg/kg

Irritation and corrosion

no data available

Sensitisation

no data available

Chronic exposure

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.

Signs and Symptoms of Exposure

prolonged or repeated exposure can cause:, Nausea, Headache, Vomiting, narcosis, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Potential Health Effects

InhalationSkinMay be harmful if inhaled. Causes respiratory tract irritation.May be harmful if absorbed through skin. Causes skin irritation.

Eyes Causes eye irritation.

Ingestion May be harmful if swallowed.

Additional Information RTECS: EM9472000

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

no data available

Ecotoxicity effects

no data available

Further information on ecology

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. Observe all federal, state, and local environmental regulations. 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: 1987 Class: 3 Packing group: II

Proper shipping name: Alcohols, n.o.s.

Marine pollutant: No

Poison Inhalation Hazard: No.

IMDG

UN-Number: 1987 Class: 3 Packing group: II EMS-No: F-E, S-D

Proper shipping name: ALCOHOLS, N.O.S.

Marine pollutant: No

IATA

UN-Number: 1987 Class: 3 Packing group: II

Proper shipping name: Alcohols n.o.s.

15. REGULATORY INFORMATION

OSHA Hazards

Flammable Liquid, 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

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

CAS-No. 115-18-4

2-Methylbut-3-en-2-ol

New Jersey Right To Know Components

CAS-No. **Revision Date**

115-18-4 2-Methylbut-3-en-2-ol

California Prop. 65 Components

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

16. OTHER INFORMATION

Revision Date

believed to be correct but doe this document is based on th propriate safety precautions.	es not purport to be all e present state of our l It does not represent a	inclusive and shall be us knowledge and is applica my guarantee of the prop	sed only as a able to the perties of the
F	believed to be correct but doe this document is based on the propriate safety precautions. o., shall not be held liable for	believed to be correct but does not purport to be all this document is based on the present state of our propriate safety precautions. It does not represent a b., shall not be held liable for any damage resulting	drich Co. License granted to make unlimited paper copies for internal use or believed to be correct but does not purport to be all inclusive and shall be us this document is based on the present state of our knowledge and is applications and the present army guarantee of the properties after precautions. It does not represent any guarantee of the properties of the properties are stated of invoice or packing slip for additional terms and conditions of severse side of invoice or packing slip for additional terms and conditions of severse side of invoice or packing slip for additional terms and conditions of severse side of invoice or packing slip for additional terms and conditions of severse side of invoice or packing slip for additional terms and conditions of severse side of invoice or packing slip for additional terms and conditions of severse slip slip for additional terms and conditions of severse slip slip for additional terms and conditions of severse slip slip for additional terms and conditions of severse slip slip for additional terms and conditions of severse slip slip for additional terms and conditions of severse slip slip for additional terms and conditions of severse slip slip for additional terms and conditions of severse slip slip for additional terms and conditions of severse slip slip for additional terms and conditions of severse slip slip for additional terms and conditions of severse slip slip for additional terms and conditions of severse slip slip for additional terms and conditions of severse slip slip slip slip slip slip slip slip