

## Material Safety Data Sheet

Date Printed: 16/JUN/2005

Date Updated: 13/MAR/2004

Version 1.2

According to 91/155/EEC

Classified as Hazardous according to the criteria of EU Annex 1 and NOHSC.

---

1 - Product and Company Information

---

Product Name	3-BUTYN-1-OL, 97%
Product Number	130850
Company	Sigma-Aldrich Pty. Ltd. 12 Anella Avenue Castle Hill NSW 2154 Australia
Technical Phone #	+61 2 9841 0555 (1800 800 097)
Fax	+61 2 9841 0500 (1800 800 096)
Emergency Phone #	+44 8701906777 (1800 448 465)

---

2 - Composition/Information on Ingredients

---

Product Name	CAS #	EC no	Annex I Index Number
3-BUTYN-1-OL	927-74-2	213-161-9	None
Formula	C <sub>4</sub> H <sub>6</sub> O		
Molecular Weight	70.09 AMU		

---

3 - Hazards Identification

---

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT  
Flammable. Irritating to eyes, respiratory system and skin.

---

4 - First Aid Measures

---

## AFTER INHALATION

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

## AFTER INGESTION

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

---

5 - Fire Fighting Measures

---

## EXTINGUISHING MEDIA

Suitable: Carbon dioxide, dry chemical powder, or appropriate foam.

## SPECIAL RISKS

Specific Hazard(s): Flammable liquid. Vapor may travel considerable distance to source of ignition and flash back.

Emits toxic fumes under fire conditions.

Explosion Hazards: Vapor may travel considerable distance to source of ignition and flash back. Container explosion may occur

under fire conditions.

#### SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

#### SPECIFIC METHOD(S) OF FIRE FIGHTING

Use water spray to cool fire-exposed containers.

---

### 6 - Accidental Release Measures

---

#### PERSONAL PRECAUTION PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area. Shut off all sources of ignition. Use nonsparking tools.

#### PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

#### METHODS FOR CLEANING UP

Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

---

### 7 - Handling and Storage

---

#### HANDLING

Directions for Safe Handling: Do not breathe vapor.

#### STORAGE

Conditions of Storage: Keep tightly closed. Keep away from heat, sparks, and open flame. Store in a cool dry place.

---

### 8 - Exposure Controls / Personal Protection

---

#### ENGINEERING CONTROLS

Mechanical exhaust required. Safety shower and eye bath.

#### GENERAL HYGIENE MEASURES

Wash thoroughly after handling. Wash contaminated clothing before reuse.

#### PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Government approved respirator.

Hand Protection: Compatible chemical-resistant gloves.

Eye Protection: Chemical safety goggles.

---

### 9 - Physical and Chemical Properties

---

Appearance	Color: Yellow Form: Clear liquid	
Property	Value	At Temperature or Pressure
pH	N/A	
BP/BP Range	129 °C	
MP/MP Range	-63.6 °C	
Flash Point	36 °C	Method: closed cup
Flammability	N/A	
Autoignition Temp	N/A	
Oxidizing Properties	N/A	
Explosive Properties	N/A	

Explosion Limits	N/A
Vapor Pressure	N/A
SG/Density	0.925 g/cm3
Partition Coefficient	N/A
Viscosity	N/A
Vapor Density	N/A
Saturated Vapor Conc.	N/A
Evaporation Rate	N/A
Bulk Density	N/A
Decomposition Temp.	N/A
Solvent Content	N/A
Water Content	N/A
Surface Tension	N/A
Conductivity	N/A
Miscellaneous Data	N/A
Solubility	N/A

---

## 10 - Stability and Reactivity

---

### STABILITY

Stable: Stable.

Materials to Avoid: Oxidizing agents, Acids, Acid anhydrides

Copper, Copper alloys.

### HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide.

### HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

---

## 11 - Toxicological Information

---

RTECS NUMBER: ES0710000

### ACUTE TOXICITY

LD50

Intravenous

Mouse

100 MG/KG

### SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

### ROUTE OF EXPOSURE

Skin Contact: Causes skin irritation.

Multiple Routes: May be harmful by inhalation, ingestion, or skin absorption. Vapor or mist is irritating to the eyes, mucous membranes, and upper respiratory tract.

---

## 12 - Ecological Information

---

No data available.

---

## 13 - Disposal Considerations

---

### SUBSTANCE DISPOSAL

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.

---

## 14 - Transport Information

---

### RID/ADR

UN#: 1986  
Class: 3  
PG: III  
Proper Shipping Name: Alcohols, flammable, toxic,  
n.o.s.

### IMDG

UN#: 1986  
Class: 3  
PG: III  
Subrisk: 6.1  
Proper Shipping Name: Alcohols, flammable, toxic,  
n.o.s.  
Marine Pollutant: No  
Severe Marine Pollutant: No  
Technical Name: Required

### IATA

UN#: 1986  
Class: 3  
PG: III  
Subrisk: 6.1  
Proper Shipping Name: Alcohols, flammable, toxic,  
n.o.s.  
Inhalation Packing Group I: No  
Technical Name: Required

---

## 15 - Regulatory Information

---

### CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

INDICATION OF DANGER: Xi  
Irritant.  
R-PHRASES: 10 36/37/38  
Flammable. Irritating to eyes, respiratory system and skin.  
S-PHRASES: 26 36  
In case of contact with eyes, rinse immediately with plenty of  
water and seek medical advice. Wear suitable protective  
clothing.

---

## 16 - Other Information

---

### WARRANTY

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 information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2005 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

### DISCLAIMER

For R&D use only. Not for drug, household or other uses.