

## MATERIAL SAFETY DATA SHEET

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Version 1.1

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Section 1 - Product and Company Information

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Product Name	3-PENTANOL, 98%
Product Number	P8025
Brand	ALDRICH
Company	Sigma-Aldrich
Street Address	3050 Spruce Street
City, State, Zip, Country	SAINT LOUIS MO 63103 US
Technical Phone:	314 771 5765
Emergency Phone:	414 273 3850 Ext. 5996
Fax:	800 325 5052

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Section 2 - Composition/Information on Ingredient

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Substance Name	CAS #	SARA 313
3-PENTANOL	584-02-1	No
Formula	C5H12O	
Synonyms	Diethyl carbinol * Isoamyl alcohol (ACGIH) * sec-Pentanol * Pentanol-3 * Pentan-3-ol * sec-Pentyl alcohol * 3-Pentyl alcohol	
RTECS Number:	SA5075000	

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Section 3 - Hazards Identification

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## EMERGENCY OVERVIEW

Combustible (USA) Flammable (EU). Harmful.  
Harmful if swallowed. Irritating to eyes, respiratory system and skin.

For additional information on toxicity, please refer to Section 11.

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Section 4 - First Aid Measures

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## ORAL EXPOSURE

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

## INHALATION EXPOSURE

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

## DERMAL EXPOSURE

In case of contact, immediately wash skin with soap and copious amounts of water.

## EYE EXPOSURE

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

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## Section 5 - Fire Fighting Measures

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FLASH POINT  
93.2 °F 34 °C Method: closed cup

AUTOIGNITION TEMP  
435 °C

FLAMMABILITY  
N/A

EXTINGUISHING MEDIA  
Suitable: Carbon dioxide. Dry chemical powder. Appropriate foam.  
Unsuitable: Water may be effective for cooling, but may not effect extinguishment.

FIREFIGHTING  
Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.  
Specific Hazard(s): Emits toxic fumes under fire conditions.

EXPOSURE HAZARD(S)  
Material: Harmful liquid. Irritant.

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## Section 6 - Accidental Release Measures

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PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL  
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.

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## Section 7 - Handling and Storage

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HANDLING  
User Exposure: Do not breathe vapor. Do not get in eyes, on skin, on clothing.

STORAGE  
Suitable: Keep tightly closed. Keep away from heat and open flame. Store in a cool dry place.

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## Section 8 - Exposure Controls / PPE

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ENGINEERING CONTROLS  
Safety shower and eye bath. Mechanical exhaust required.

PERSONAL PROTECTIVE EQUIPMENT  
Respiratory: Government approved respirator.  
Hand: Rubber gloves.  
Eye: Chemical safety goggles.

GENERAL HYGIENE MEASURES  
Wash thoroughly after handling. Wash contaminated clothing before reuse.

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## Section 9 - Physical/Chemical Properties

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Appearance                      Color: Colorless  
   Form: Clear liquid

Property	Value	At Temperature or Pressure
Molecular Weight	88.15 AMU	
pH	N/A	
BP/BP Range	115 - 116 °C	
MP/MP Range	N/A	
Freezing Point	N/A	
Vapor Pressure	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
SG/Density	0.82 g/cm3	
Bulk Density	N/A	
Odor Threshold	N/A	
Volatile%	N/A	
VOC Content	N/A	
Water Content	N/A	
Solvent Content	N/A	
Evaporation Rate	N/A	
Viscosity	N/A	
Surface Tension	N/A	
Partition Coefficient	N/A	
Decomposition Temp.	N/A	
Flash Point	93.2 °F 34 °C	Method: closed cup
Explosion Limits	N/A	
Flammability	N/A	
Autoignition Temp	435 °C	
Refractive Index	1.41	
Optical Rotation	N/A	
Miscellaneous Data	N/A	
Solubility	N/A	

N/A = not available

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## Section 10 - Stability and Reactivity

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### STABILITY

Materials to Avoid: Strong oxidizing agents.

### HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide.

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## Section 11 - Toxicological Information

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### ROUTE OF EXPOSURE

Skin Contact: Causes skin irritation.

Skin Absorption: May be harmful if absorbed through the skin.

Inhalation: May be harmful if inhaled.

Ingestion: Harmful if swallowed.

Multiple Routes: Vapor or mist is irritating to the eyes, mucous membranes, and upper respiratory tract.

### SIGNS AND SYMPTOMS OF EXPOSURE

Prolonged exposure can cause: Nausea, headache, and vomiting.

Narcotic effect.

### TOXICITY DATA

Oral

Rat  
1870 mg/kg  
LD50

Skin  
Rabbit  
2520 UL/KG  
LD50

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IRRITATION DATA

Skin  
Rabbit  
500 mg  
24H  
Remarks: Mild irritation effect

Eyes  
Rabbit  
20 mg  
24H  
Remarks: Moderate irritation effect

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Section 12 - Ecological Information

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Section 13 - Disposal Considerations

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APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

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Section 14 - Transport Information

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DOT

Proper Shipping Name: PENTANOLS  
UN#: 1105  
Class: 3  
Packing Group: Packing Group III  
Hazard Label: Flammable liquid  
PIH: Not PIH

IATA

Proper Shipping Name: PENTANOLS  
IATA UN Number: 1105  
Hazard Class: 3  
Packing Group: III

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Section 15 - Regulatory Information

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EU ADDITIONAL CLASSIFICATION

Symbol of Danger: Xn  
Indication of Danger: Harmful.  
R: 10 20  
Risk Statements: Flammable. Harmful by inhalation.  
S: 24/25  
Safety Statements: Avoid contact with skin and eyes.

US CLASSIFICATION AND LABEL TEXT

Indication of Danger: Combustible (USA) Flammable (EU). Harmful.  
Risk Statements: Harmful if swallowed. Irritating to eyes,

respiratory system and skin.

Safety Statements: Keep away from sources of ignition - no smoking. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection.

#### UNITED STATES REGULATORY INFORMATION

SARA LISTED: No

TSCA INVENTORY ITEM: Yes

#### CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: Yes

NDSL: No

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#### Section 16 - Other Information

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#### DISCLAIMER

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

#### 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 2004 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.