

## MATERIAL SAFETY DATA SHEET

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Version 1.3

## Section 1 - Product and Company Information

Product Name 1-HEXADECANOL, 99%  
Product Number 258741  
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

## Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313 No
1-HEXADECANOL	36653-82-4	No

Formula C16H34O  
Synonyms Adol 52 \* Adol 54 \* Adol 520 \* Alcohol C-16 \*  
Atalco C \* Cachalot C-50 \* Cachalot C-51 \*  
Cachalot C-52 \* Cetaffine \* Cetal \* Cetalol CA \*  
Cetyl alcohol \* Cetylic alcohol \* Cetylol \*  
CO-1670 \* CO-1695 \* Crodacol-cas \* Crodacol-cat \*  
Cyclal cetyl alcohol \* Dytol F-11 \* EPAL 16NF \*  
Ethal \* Ethol \* Hexadecanol \* n-Hexadecanol \*  
Hexadecan-1-ol \* Hexadecyl alcohol \* n-Hexadecyl  
alcohol \* Lorol 24 \* Loxanol K \* Loxanol K Extra  
\* Palmityl alcohol \* Product 308 \* Siponol CC \*  
Siponol Wax A \* Tego Alkanol 16

RTECS Number: MM0225000

## Section 3 - Hazards Identification

## EMERGENCY OVERVIEW

Irritant.

Irritating to eyes, respiratory system and skin.

## HMIS RATING

HEALTH: 2

FLAMMABILITY: 0

REACTIVITY: 0

## NFPA RATING

HEALTH: 2

FLAMMABILITY: 0

REACTIVITY: 0

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

## Section 4 - First Aid Measures

## 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

235 °F 113 °C Method: closed cup

#### EXPLOSION LIMITS

Lower: 1 % Upper: 8 %

#### AUTOIGNITION TEMP

251 °C

#### FLAMMABILITY

N/A

#### EXTINGUISHING MEDIA

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

#### 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.

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### Section 6 - Accidental Release Measures

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

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

#### METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. 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 dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

#### STORAGE

Suitable: Keep tightly closed.

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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: Compatible chemical-resistant gloves.  
Eye: Chemical safety goggles.

GENERAL HYGIENE MEASURES

Wash thoroughly after handling.

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Section 9 - Physical/Chemical Properties

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Appearance	Physical State: Solid	
Property	Value	At Temperature or Pressure
Molecular Weight	242.45 AMU	
pH	N/A	
BP/BP Range	190 °C	
MP/MP Range	49 - 50 °C	
Freezing Point	N/A	
Vapor Pressure	< 0.01 mmHg	43 °C
Vapor Density	8.34 g/l	
Saturated Vapor Conc.	N/A	
SG/Density	0.818 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	235 °F 113 °C	Method: closed cup
Explosion Limits	Lower: 1 % Upper: 8 %	
Flammability	N/A	
Autoignition Temp	251 °C	
Refractive Index	N/A	
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

Stable: Stable.  
Materials to Avoid: Strong oxidizing agents, Strong acids.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

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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.  
Eye Contact: Causes eye irritation.  
Inhalation: Material is irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.  
Ingestion: May be harmful if swallowed.

#### SIGNS AND SYMPTOMS OF EXPOSURE

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

#### TOXICITY DATA

Oral Oral  
Rat Rat  
5000 mg/kg 5000 mg/kg  
LD50 LD50  
Remarks: Cardiac:Other changes. Lungs, Thorax, or  
Respiration:Other changes. Cardiac:Other changes. Lungs, Thorax,  
or Respiration:Other changes.

Intraperitoneal Intraperitoneal  
Rat Rat  
1600 MG/KG 1600 MG/KG  
LD50 LD50  
Remarks: Gastrointestinal:Hypermotility, diarrhea. Skin and  
Appendages:Skin: After systemic exposure: Dermatitis, other  
Gastrointestinal:Hypermotility, diarrhea. Skin and  
Appendages:Skin: After systemic exposure: Dermatitis, other

Oral Oral  
Mouse Mouse  
3200 mg/kg 3200 mg/kg  
LD50 LD50

Intraperitoneal Intraperitoneal  
Mouse Mouse  
1600 MG/KG 1600 MG/KG  
LD50 LD50

Skin Skin  
Rabbit Rabbit  
> 2600 mg/kg > 2600 mg/kg  
LD50 LD50

#### IRRITATION DATA

Skin Skin  
Human Human  
75 mg 75 mg  
3D 3D  
I I  
Remarks: Mild irritation effect Mild irritation effect

Skin Skin  
Man Man  
50 mg 50 mg  
48H 48H  
Remarks: Mild irritation effect Mild irritation effect

Skin Skin  
Rat Rat

100 mg 100 mg  
24H 24H  
Remarks: Severe irritation effect Severe irritation effect

Skin Skin  
Rabbit Rabbit  
2,600 mg/kg 2,600 mg/kg  
24H 24H  
Remarks: Mild irritation effect Mild irritation effect

Skin Skin  
Rabbit Rabbit  
100 mg 100 mg  
24H 24H  
Remarks: Severe irritation effect Severe irritation effect

Eyes Eyes  
Rabbit Rabbit  
82 mg 82 mg  
Remarks: Mild irritation effect Mild irritation effect

Skin Skin  
Guinea pig Guinea pig  
100 % 100 %  
Remarks: Mild irritation effect Mild irritation effect

Skin Skin  
Guinea pig Guinea pig  
100 mg 100 mg  
24H 24H  
Remarks: Moderate irritation effect 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

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn 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: None  
Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

### IATA

Non-Hazardous for Air Transport: Non-hazardous for air transport.

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## Section 15 - Regulatory Information

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### EU ADDITIONAL CLASSIFICATION

Symbol of Danger: Xi  
Indication of Danger: Irritant.  
R: 36/37/38  
Risk Statements: Irritating to eyes, respiratory system and skin.

S: 22 24/25

Safety Statements: Do not breathe dust. Avoid contact with skin and eyes.

US CLASSIFICATION AND LABEL TEXT

Indication of Danger: Irritant.

Risk Statements: Irritating to eyes, respiratory system and skin.

Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

UNITED STATES REGULATORY INFORMATION

SARA LISTED: No

TSCA INVENTORY ITEM: Yes 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.