

## MATERIAL SAFETY DATA SHEET

### 1. Product and Company Identification

<b>Material name</b>	<b>CO-1695 Cetyl Alcohol, NF</b>
<b>Manufacturer</b>	The Procter & Gamble Company Procter & Gamble Chemicals Sharon Woods Innovation Center 11530 Reed Hartman Highway Cincinnati, Ohio 45241 1-800-477-8899 or 1-513-626-6882 PGChemMSDS.IM@pg.com CHEMTREC: 1-800-424-9300 U.S. and Canada CHEMTREC: 1-703-527-3887 For calls originating elsewhere
<b>Version #</b>	04
<b>Revision date</b>	06-01-2010
<b>CAS #</b>	36653-82-4
<b>MSDS Number</b>	ALCH415
<b>Product Code</b>	9875189, 60053680
<b>Product use</b>	Production of alkyl amines, aluminum rolling lubricants, tertiary amines, cosmetics, ethoxylates, halides/mercaptans, polymerization stabilizers, and sulfation.
<b>Synonym(s)</b>	CETYL ALCOHOL

### 2. Hazards Identification

<b>Emergency overview</b>	Potential combustible dust if flaked or powdered. Dust generated from flaked product will be combustible at sufficient concentration.
<b>OSHA regulatory status</b>	This product is considered not hazardous under 29 CFR 1910.1200 (Hazard Communication).
<b>Potential health effects</b>	
<b>Eyes</b>	May cause minor irritation on eye contact.
<b>Skin</b>	Prolonged or excessive skin contact with this product may cause mild skin irritation. Heated product may cause thermal burns if contacted.
<b>Inhalation</b>	No harmful effects expected with normal use. Inhalation of dusts may cause respiratory irritation.
<b>Ingestion</b>	May cause irritation of the gastrointestinal tract.
<b>Specific hazards</b>	Potential combustible dust if flaked or powdered. Dust generated from flaked product will be combustible at sufficient concentration.

### 3. Composition / Information on Ingredients

Components	CAS #	Percent
1-HEXADECANOL	36653-82-4	95-100

### 4. First Aid Measures

<b>First aid procedures</b>	
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.
<b>Skin contact</b>	Wash off with soap and water. Remove contaminated clothing. Wash clothing separately before reuse.
<b>Inhalation</b>	Do not breathe dust or vapor. Move to fresh air. Get medical attention.
<b>Ingestion</b>	If swallowed, especially in large quantities: Get medical attention.

## 5. Fire Fighting Measures

<b>Flammable properties</b>	Not flammable by OSHA criteria. Not combustible by OSHA criteria.
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Small fires: Dry chemical or CO <sub>2</sub> . Larger fires: Foam.
<b>Protection of firefighters</b>	
<b>Specific hazards arising from the chemical</b>	Potential combustible dust if flaked or powdered. Dust generated from flaked product will be combustible at sufficient concentration. Does not decompose up to 400° F (204° C). Complete combustion forms carbon dioxide and water vapor. Partial combustion forms also carbon monoxide, soot, aldehydes and ketones.
<b>Special protective equipment for fire-fighters</b>	Wear self-contained breathing apparatus and protective clothing.
<b>Specific methods</b>	In the event of fire, cool tanks with water spray.

## 6. Accidental Release Measures

<b>Personal precautions</b>	An appropriate NIOSH/MSHA approved respirator should be used if a mist, vapor or dust is generated.
<b>Environmental precautions</b>	Minimize contamination of drains, surface and ground waters.
<b>Methods for containment</b>	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
<b>Methods for cleaning up</b>	Ventilate the area. Eliminate sources of ignition. Contain spill. Neutralization not required. Collect spillage with granulates, sawdust, rags or other absorbent. Sweep or scoop up and remove. Dispose as any grease or oily material in compliance with Federal, State, and/or Local requirements.

## 7. Handling and Storage

<b>Handling</b>	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Empty containers contain product residue and can be dangerous, follow all hazard warnings and precautions even after container is emptied. Keep away from sources of ignition - No smoking.
<b>Storage</b>	Keep away from heat, sparks and open flame. Store in tightly closed original container in a dry and cool place. Room temperature - normal conditions. Do not expose to excessive heat. Store in a cool dry place in accordance with 29 CFR 1910-106/NFPA 30. Store in most common storage vessels including stainless steel, zinc-type spray-on linings, flaked polyester lining.

## 8. Exposure Controls / Personal Protection

<b>Engineering controls</b>	Local exhaust is recommended. Mechanical - may be necessary if working at elevated temperatures or in enclosed areas.
<b>Personal protective equipment</b>	
<b>General</b>	Boots. Apron. Provide eyewash station and safety shower. Wear suitable protective clothing.
<b>Eye / face protection</b>	It is a good industrial hygiene practice to minimize eye contact.
<b>Skin protection</b>	Protective gloves should be worn when handling heated molten product.
<b>Respiratory protection</b>	No personal respiratory protective equipment normally required. An appropriate NIOSH/MSHA approved respirator should be used if a mist, vapor or dust is generated.
<b>Environmental exposure controls</b>	Contact Procter and Gamble for specific Community information.

## 9. Physical & Chemical Properties

<b>Appearance</b>	Solid. Flakes. Powder.
<b>Color</b>	Waxy White.
<b>Odor</b>	Mild. Soapy.
<b>Odor threshold</b>	Not available.
<b>Physical state</b>	Solid.
<b>Form</b>	Flakes.
<b>pH</b>	Not available.
<b>Melting point</b>	116.6 - 122 °F (47 - 50 °C)

<b>Freezing point</b>	Not available.
<b>Boiling point</b>	> 480 °F (> 248.9 °C) @ 760 mm Hg (101.3kPa)
<b>Flash point</b>	320 °F (160 °C) Pensky-Martens Closed Cup
<b>Evaporation rate</b>	Not available.
<b>Flammability limits in air, upper, % by volume</b>	Not available.
<b>Flammability limits in air, lower, % by volume</b>	Not available.
<b>Vapor pressure</b>	< 0 kPa at 30°C < 1 mm Hg @ 72 F (22 C)
<b>Vapor density</b>	Not available.
<b>Specific gravity</b>	Not available.
<b>Relative density</b>	0.81 @ 55/25 C
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>VOC</b>	Not available.

## 10. Chemical Stability & Reactivity Information

<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Conditions to avoid</b>	Not available.
<b>Materials to avoid</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	Does not decompose up to 400 F. Complete combustion forms carbon dioxide and water vapor. Partial combustion forms also carbon monoxide, soot, aldehydes and ketones.
<b>Hazardous polymerization</b>	Hazardous polymerization does not occur.

## 11. Toxicological Information

### Toxicological data

#### Impurities

1-TETRADECANOL (112-72-1)

#### Test Results

Dermal Human: 75 mg 3.00 days -I MOD (Irritation Data)

Other MLD Rabbit: 500 mg Eye Irritation

Acute Dermal LD50 Rabbit: > 5 g/kg

Acute Oral LD50 Rat: > 5 g/kg

#### Acute effects

1-HEXADECANOL (36653-82-4):

#### Acute Oral Toxicity:

Practically nontoxic. 1-Hexadecanol has an LD50 of greater than 20 gms per kilogram of body weight for rats (i.e. at maximum possible dosage, none of the animals died).

#### Further information

#### Eye Irritation:

Non-hazardous. 1-Hexadecanol produced only mild transient eye irritation with rabbits. The degree and duration of irritation elicited by the undiluted, powdered fatty alcohol was equivalent to or less than that produced by a 10% aqueous solution of real soap.

#### Skin Irritation - Humans:

Non-hazardous. (30% in isopropanol) produced little or no primary skin irritation with human subjects in a 24-hour closed patch test. The degree of irritation elicited was less than that produced by a 4% aqueous solution of real soap.

## 12. Ecological Information

### Ecotoxicological data

#### Product

1-HEXADECANOL (36653-82-4)

#### Test Results

Fathead minnow (*Pimephales promelas*): > 500 mg/l 5.00 days  
Berger, 1958

Product	Test Results
1-HEXADECANOL (36653-82-4)	LC50 Bluegill (Lepomis macrochirus): > 1000 mg/l 96.00 hours
Impurities	Test Results
1-OCTADECANOL (112-92-5)	LC50 Bluegill (Lepomis macrochirus): >= 1000 mg/l 96.00 hours

**Ecotoxicity** 1-HEXADECANOL (36653-82-4):

Mobility:  
Mass Distribution by Environmental Compartment via Fugacity Level III Model:  
Air: 0.762% Water: 8.75% Soil: 29.9% Sediment: 60.6%

PERSISTENCE AND DEGRADABILITY:  
Bioaccumulative Potential:  
LogKow 6.65 Burkhard et al., 1985  
LogKow 6.73 SRC  
BCF 56 Freitag et al., 1982

Microbiological Inhibition: None at 10,000 mg/l.

### 13. Disposal Considerations

**Disposal instructions** Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.  
Do not dispose of via sinks, drains or into the immediate environment.

### 14. Transport Information

#### DOT

Not regulated as dangerous goods.

### 15. Regulatory Information

**US federal regulations** This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
All components are on the U.S. EPA TSCA Inventory List.

CERCLA/SARA Hazardous Substances - Not applicable.

#### CERCLA (Superfund) reportable quantity

None

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories** Immediate Hazard - No  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

**Section 302 extremely hazardous substance** No

**Section 311 hazardous chemical** No

#### Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No

Country(s) or region	Inventory name	On inventory (yes/no)*
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

**State regulations** This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

**US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**

Contains no California Prop 65 chemicals.

**US - New Jersey Community RTK (EHS Survey): Reportable threshold**

**US - Pennsylvania RTK - Hazardous Substances: Listed substance**

Contains no Pennsylvania Right To Know hazardous substances

**16. Other Information**

**HMIS® ratings** Health: 0  
Flammability: 1  
Physical hazard: 0

**NFPA ratings** Health: 0  
Flammability: 1  
Instability: 0

**Bibliography** Berger, B.B., 1958. Use of hexadecanol in reservoir evaporation reduction. J. American Water Works Assn., pp. 855-858.

Burkhard, L.P., Kuehl, D.W., and Veith, G.D. 1985. Evaluation of reverse phase liquid chromatography/mass spectrometry for estimation of N-octanol/water partition coefficients for organic chemicals. Chemosphere 14(10):1551-1560.

Freitag, D., Geyer, H., Kraus, A., Viswanathan, R., Kotzias, D., Attar, A., Klein, W., and Korte, F. 1982. Ecotoxicological profile analysis VII. Screening chemicals for their environmental behavior by comparative evaluation. Ecotoxicol. Environ. Safety 6:60-81.

Syracuse Research Corporation (SRC) Online Database.

**Disclaimer** The submission of the MSDS may be required by law, but this is not an assertion that the substance is hazardous when used in accordance with proper safety practices and normal handling procedures. Data supplied are for use only in connection with occupational safety and health.

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**This data sheet contains changes from the previous version in section(s):** This document has undergone significant changes and should be reviewed in its entirety.