

SAFETY DATA SHEET

1. Identification

GHS product identifier	CO-1698
MSDS Number	ALCH469
Product Code	99290248
Version #	04
Issue date	08-02-2011
CAS #	36653-82-4
Product use	Production of alkyl amines, aluminum rolling lubricants, tertiary amines, cosmetics, ethoxylates, halides/mercaptans, polymerization stabilizers, and sulfation.
Recommended Restrictions	Not available.
Synonym(s)	CETYL ALCOHOL
Manufacturer	P&G Chemicals Asia 238-A Thompson Road #21-01/10 Novena Square Tower A Singapore 307684 (65) 6824 5728 (day phone) PGChemMSDS.IM@pg.com CHEMTREC: +1-703-527-3887 Quality or Service Issues: 1-800-477-8899 or +1-513-626-6882

2. Hazards identification

GHS classification

Physical hazards

Explosives	Classification not possible
Flammable gases	Not applicable
Flammable aerosols	Not applicable
Oxidizing gases	Not applicable
Gases under pressure	Not applicable
Flammable liquids	Not applicable
Flammable solids	Classification not possible
Self-reactive substances and mixtures	Classification not possible
Pyrophoric liquids	Not applicable
Pyrophoric solids	Classification not possible
Self-heating substances and mixtures	Classification not possible
Substances and mixtures which, in contact with water, emit flammable gases	Classification not possible
Oxidizing liquids	Not applicable
Oxidizing solids	Classification not possible
Organic peroxides	Classification not possible
Corrosive to metals	Classification not possible

Health hazards

Acute toxicity, oral	Classification not possible
Acute toxicity, dermal	Classification not possible
Acute toxicity, inhalation	Not applicable
Skin corrosion/irritation	Classification not possible
Serious eye damage/eye irritation	Classification not possible
Sensitization, respiratory	Classification not possible

	Sensitization, skin	Classification not possible
	Germ cell mutagenicity	Classification not possible
	Carcinogenicity	Classification not possible
	Reproductive toxicity	Classification not possible
	Specific target organ toxicity, single exposure	Classification not possible
	Specific target organ toxicity, repeated exposure	Classification not possible
	Aspiration hazard	Classification not possible
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Classification not possible
	Hazardous to the aquatic environment, long-term hazard	Classification not possible
	Hazardous to the ozone layer	Not classified
Precautionary statement		
Prevention	Not applicable.	
Storage	Store in accordance with local/regional/national/international regulation.	
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.	
Specific hazards	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	98-100

4. First aid measures

First aid procedures

Inhalation	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
Skin	Rinse skin with water/shower. Get medical attention if irritation develops or persists.
Eye	Rinse with water. Get medical attention if irritation develops or persists.
Ingestion	Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately.
Notes to physician	Not applicable.

5. Fire-fighting measures

Suitable extinguishing media	Water. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Specific hazards arising from the chemical	Not available.
Protective equipment and precautions for firefighters	In the event of fire, cool tanks with water spray. Use water spray to cool unopened containers. Cool containers exposed to flames with water until well after the fire is out.

6. Accidental release measures

Personal precautions	Not available.
Environmental precautions	Prevent further leakage or spillage if safe to do so.
Methods for containment	Not available.
Methods for cleaning up	Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation. Following product recovery, flush area with water.

7. Handling and storage

Handling	Use care in handling/storage.
Storage	Use care in handling/storage.

8. Exposure controls / personal protection

Recommended monitoring procedures	Not available.
Personal protective equipment	
Eye/face protection	Not normally needed.
Skin protection	No special protective equipment required.
Respiratory protection	No personal respiratory protective equipment normally required.
Hand protection	Not normally needed.

9. Physical and chemical properties

Appearance

Solid. Flakes. Powder.

Physical state	Solid.
Color	Waxy. White.
Form	Solid.
Odor	Mild. Soapy.
Odor threshold	Not available.
pH	Not available.
Melting point/Freezing point	116.6 - 122 °F (47 - 50 °C)
Boiling point	>= 480.2 °F (>= 249 °C) 101.3232 kPa
Flash point	320 °F (160 °C) Pensky-Martens Closed Cup
Evaporation rate	Not available.
Flammability (Train fire)	Not available.
Flammability limits in air, lower, % by volume	Not available.
Flammability limits in air, upper, % by volume	Not available.
Vapor pressure	< 1e-007 kPa at 30°C <= 1 mm Hg at 22°C
Relative density	Not available.
Solubility (H2O)	Not available.
Octanol/H2O coeff	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Specific gravity	0.8187

10. Stability and reactivity

Chemical stability	No hazards to be especially mentioned.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Not available.
Materials to avoid	Strong oxidizing agents.
Hazardous decomposition products	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.

11. Toxicological information

Toxicological data

Product

Test Results

1-HEXADECANOL (36653-82-4)

Acute Oral LD50 Mouse: 3200 mg/kg

Acute Oral LD50 Rat: 5 g/kg

Impurities**Test Results**

1-TETRADECANOL (112-72-1)

Ames test: not mutagenic. OECD Test Guideline 471 (Literature value)
 Human: Patch-Test: not sensitizing (literature value)
 Dermal Rabbit: Skin: slightly irritating
 Other Rabbit: Eye: irritating OECD Test Guideline 405
 Acute Dermal LD50 Rabbit: > 2000 mg/kg OECD Test Guideline 402

1-OCTADECANOL (112-92-5)

Acute Dermal LD50 Rabbit: 7.13 ml/kg
 Acute Oral LD50 Rat: > 2000 mg/kg OECD Test Guideline 401
 Acute Dermal LD50 Rabbit: 8000 mg/kg 24.00 hours Scientific Assoc Inc, 1977, Read across from 112-72-1 1-tetradecanol
 Acute Dermal LD50 Rabbit: 8000 mg/kg 48.00 hours Scientific Assoc Inc, 1977, Read across from 112-72-1 1-tetradecanol
 Acute Oral LD50 Rat: > 2000 mg/kg OECD 401, Hempstock C, 1996
 Acute Oral LD50 Rat: > 2000 mg/kg OECD 201, Hempstock C, 1996

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).

Skin corrosion/irritation

Not available.

Serious eye damage/eye irritation

Not available.

Other 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****Test Results**

1-HEXADECANOL (36653-82-4)

Fathead minnow (*Pimephales promelas*): >= 500 mg/l 5.00 days Berger, 1958
 LC50 Bluegill (*Lepomis macrochirus*): >= 1000 mg/l 96.00 hours

Impurities**Test Results**

1-TETRADECANOL (112-72-1)

EC50 Daphnia: 0.1439 mg/l 48.00 hours estimated
 LC50 Trout family (*Salmonidae*): >= 1 mg/l 96.00 hours
 Tetradecanol (112-72-1)

1-OCTADECANOL (112-92-5)

EC0 Water flea (*Daphnia magna*): 1000 mg/l 48.00 hours
 OECD 202, Guhl M 1992
 EL50 Green algae (*Desmodesmus subspicatus*): > 10 mg/l
 96.00 hours OECD 201, Dr Guhl 1992
 LC50 Rainbow Trout: > 0.4 mg/l 96.00 hours OECD 203,
 Wetton PM 1996
 NOEC Water flea (*Daphnia magna*): 20.6 µg/l 21.00 days EPA
 OPPTS 850.1300, ABC 1999

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 methods** Not available.**14. Transport information****ADR**

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

RID

Not regulated as dangerous goods.

15. Regulatory information**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
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
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
Switzerland	Switzerland FOPH	No
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)

16. Other information**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.

The information contained herein has been compiled from sources considered by Procter & Gamble to be dependable and is accurate to the best of the Company's knowledge. The information relates to the specific product designated herein, and does not relate to use in combination with any other material of any other process. Procter & Gamble assumes no responsibility for injury to the recipient or third persons, or for any damage to any property resulting from misuse of the controlled product.

Revision date

08-02-2011

SDS sections updated

Product and Company Identification: Product and Company Identification

Hazards identification: Response

Physical and chemical properties: Color

Toxicological information: Other information