

SAFETY DATA SHEET

1. Identification

GHS product identifier	CO-1214
SDS number	ALCH408
Product Code	95877958, 10220263, 99695502, 10220563, 92160762, 10270352
Version #	10
Issue date	11-19-2009
Revision date	10-23-2014
Supersedes date	07-16-2014
Product use	Intermediate. Cosmetics. Aluminum rolling lubricants.
Recommended Restrictions	Not available.
Synonym(s)	Lauryl/Myristyl Alcohol
Manufacturer	The Procter & Gamble Company Procter & Gamble Chemicals Sharon Woods Innovation Center 11530 Reed Hartman Highway Cincinnati, OH 45241 United States For Quality Service or Product Related Questions Call: 1-800-477-8899 PGChemMSDS.IM@pg.com For Emergency Contact CHEMTREC: 1-800-424-9300 U.S. and Canada For Calls Originating Elsewhere CHEMTREC: 1-703-527-3887

2. Hazards identification

GHS classification	
Physical hazards	Not classified.
Health hazards	Serious eye damage/eye irritation Category 2A
Environmental hazards	Hazardous to the aquatic environment, acute hazard Category 1 Hazardous to the aquatic environment, long-term hazard Category 2

GHS label elements

Signal words Warning

Symbols



Hazard statement Causes serious eye irritation. Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention Wear protective gloves/protective clothing/eye protection/face protection. Wash face, hands and any exposed skin thoroughly after handling. Avoid release to the environment.

Response IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Collect spillage.

Storage No special storage precautions noted.

Disposal

Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Specific hazards

Causes serious eye irritation. Very toxic to aquatic organisms. May cause long-term adverse effects in the environment.

3. Composition/information on ingredients

Components	CAS #	Percent
Alcohols, C10-16	67762-41-8	100

4. First aid measures**First aid procedures****Eye**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin

Wash off with soap and water.

Inhalation

Remove from area of exposure. Move to fresh air. If breathing stops, provide artificial respiration. If breathing is difficult, give oxygen. Consult a physician for specific advice.

Ingestion

Consult a physician. Do not induce vomiting without advice from poison control center or doctor. Never give anything by mouth to a victim who is unconscious or is having convulsions.

Notes to physician

Not available.

General advice

If you feel unwell, seek medical advice (show the label where possible). Take off all contaminated clothing immediately.

5. Fire-fighting measures**Extinguishing media****Suitable extinguishing media**

Water spray. Dry chemical. Foam. Carbon dioxide (CO₂).

Unsuitable extinguishing media

Do not use water jet.

Protection of firefighters**Specific hazards arising from the chemical**

Irritating and toxic gases or fumes may be released during a fire.

Protective equipment and precautions for firefighters

Wear self-contained breathing apparatus and protective clothing.

Fire fighting equipment/instructions

Not available.

6. Accidental release measures**Personal precautions**

Wear appropriate personal protective equipment.

Environmental precautions

The compound is readily biodegradable and is mineralized within wastewater treatment plants. Release of long chain alcohols by wastewater microbes is expected as a result of natural microbial metabolism. The safety of long chain alcohols is demonstrated for all environmental compartments.

Methods for containment

Dam and absorb spillage with sand, sawdust or other absorbent.

Methods for cleaning up

Absorb with sand or other inert absorbent. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.

7. Handling and storage**Handling**

Wear personal protective equipment. Handle in accordance with good industrial hygiene and safety practice.

Storage

No special storage precautions noted.

8. Exposure controls / personal protection

Control parameters

ACGIH

No relevant exposure guidelines for ingredients.

U.S. - OSHA

No relevant exposure guidelines for ingredients.

Engineering controls

Mechanical ventilation or local exhaust ventilation may be required.

Personal protective equipment

General

Observe good industrial hygiene practices. Wear suitable protective clothing, gloves and eye/face protection. Avoid contact with eyes.

Eye/face protection

Tightly fitting safety goggles.

Skin protection

Wear suitable protective clothing and eye/face protection. Wear suitable gloves.

Respiratory protection

No protection is ordinarily required under normal conditions of use and with adequate ventilation. In case of inadequate ventilation or risk of inhalation of vapors, use suitable respiratory equipment with combination filter (type A2/P2).

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs.

Environmental exposure controls

The compound is readily biodegradable and is mineralized within wastewater treatment plants. Release of long chain alcohols by wastewater microbes is expected as a result of natural microbial metabolism. The safety of long chain alcohols is demonstrated for all environmental compartments.

9. Physical and chemical properties

Appearance

Physical state

Liquid.

Color

Water white.

Odor

Fresh, Waxy.

Odor threshold

Not available.

pH

Not available.

Melting point/Freezing point

64.4 - 71.6 °F (18 - 22 °C)

Boiling point

> 350 °F (> 176.67 °C) @ 760 mm Hg (101.3kPa)

Flash point

290.00 °F (143.33 °C) Pensky-Martens Closed Cup

Evaporation rate

Not available.

Flammability (solid, gas)

Not available.

Flammability limits in air, lower, % by volume

Not available.

Flammability limits in air, upper, % by volume

Not available.

Vapor pressure

< 10 mm Hg @ 72 F (22 °C)

Vapor density

Not available.

Relative density

Not available.

Solubility (H2O)

Negligible @ 72 °C (22 °C)

Partition coefficient (n-octanol/water)

See section 12

Auto-ignition temperature

Not available.

Decomposition temperature

Not available.

Viscosity

12 mPa·s

Specific gravity

0.8

10. Stability and reactivity

Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Direct sources of heat. Contamination. Sunlight. Ionizing radiation.
Incompatible materials	Not available.
Hazardous decomposition products	No decomposition if stored normally.

11. Toxicological information

Toxicological data

Constituents	Species	Test Results
1-DODECANOL (112-53-8)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	8000 - 12000 mg/kg, 24 hours, bw. OECD 402.
<i>Inhalation</i>		
LC50	Rat	> 71 mg/l, 1 hr, air. Read-across 112-30-1.
<i>Oral</i>		
LD50	Rat	> 2000 mg/kg, bw. OECD 401.

1-TETRADECANOL (112-72-1)

Acute		
<i>Dermal</i>		
LD50	Rabbit	8000 mg/kg, 24 hours, bw
<i>Inhalation</i>		
LC50	Rat	> 1.5 mg/l, 1 hr, air.
<i>Oral</i>		
LD50	Rat	> 2000 mg/kg, bw OECD 401

Impurities	Species	Test Results
1-DECANOL (112-30-1)		
Acute		
<i>Dermal</i>		
LD50	Rat	> 5000 mg/kg, 24 hours, /bw. EPA OPPTS 870.1200.
<i>Inhalation</i>		
LC50	Rat	> 71 mg/l, 1 hr, /air.
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg, /bw. EPA OPPTS 870.1100.

General information Not available.

Information on likely routes of exposure

Ingestion	Not classified.
Inhalation	Not classified.
Skin contact	Not classified.
Eye contact	Causes serious eye irritation.
Sensitization	Not classified.

Sensitization

1-DODECANOL

In vivo, OECD 406.
Result: Not sensitizing
Species: Guinea pig

Skin sensitization

1-TETRADECANOL

In vivo, OECD 406.
Result: Not sensitizing
Species: Guinea pig

1-DECANOL

In vivo, EPA OPPTS 870.2600.
Result: Not sensitizing
Species: Guinea pig
Observation Period: 24 hours

Carcinogenicity

Not classified.
This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Mutagenicity

Not classified.

Germ cell mutagenicity: Ames test

1-DODECANOL

0, OECD 471.
Result: Negative
Species: Salmonella Typhimurium (Salmonella enterica)
5000 In vitro, μ /plate. OECD 471.
Result: Negative
Species: Salmonella Typhimurium (Salmonella enterica)
Test Duration: 48 hours

1-TETRADECANOL

1-DECANOL

In vitro, OECD 476. Read-across 104-76-7.
Result: Negative
Species: Salmonella Typhimurium (Salmonella enterica)

Germ cell mutagenicity: Chromosome aberration

1-DODECANOL

In vitro, OECD 473. Read-across 67762-41-8
Result: Negative
Species: Hamster
500 mg/kg In vivo, bw. OECD 474. Read-across 661-19-8.
Result: Negative
Species: Mouse

1-TETRADECANOL

1-DECANOL

In vivo, OECD 474. Read-across 112-53-8.
Result: Negative
Species: Mouse

Germ cell mutagenicity: Micronucleus

1-DODECANOL

In vivo, OECD 474.
Result: Negative
Species: Mouse

Reproductive effects

Not classified.

Fertility effects - Males and females

1-DODECANOL

1127 - 1243 mg/kg/day NOAEL, Read-across 111-27-3.
Result: No effects
Species: Rat
Test Duration: 13 weeks

Developmental effects

1-DODECANOL 2000 mg/kg bw/day NOAEL, Draft OECD 422.
Result: No effects
Species: Rat

1-TETRADECANOL 2000 mg/kg bw/day NOAEL, OECD 422. Read-across
112-53-8.
Result: No effects
Species: Rat

1-DECANOL 1300 mg/kg bw/day NOAEL, OECD 414.
Result: No effects
Species: Rat
Test Duration: 20 days

Skin corrosion/irritation Not classified.**Irritation Corrosion - Skin**

1-DODECANOL In vivo, OECD 404.
Result: Not irritating
Species: Human
Test Duration: 4 hours

1-TETRADECANOL In vivo, OECD 404. GLP.
Result: Not irritating
Species: Human
Test Duration: 4 hours
Observation Period: 72 hours

1-DECANOL In vivo, EPA OPPTS 870.2500.
Result: Not irritating
Species: Rabbit
Test Duration: 4 hours
Observation Period: 10 days

Serious eye damage/eye irritation Causes serious eye irritation.**Irritation Corrosion - Eye**

1-DODECANOL In vivo, OECD 405.
Result: Irritating
Species: Rabbit
Test Duration: 24 hours
Observation Period: 72 hours

1-TETRADECANOL 0.01 ml In vivo, OECD 405.
Result: Moderately irritating
Species: Rabbit
Observation Period: 14 days

1-DECANOL 28.3, EPA OPPTS 870.2400.
Result: Moderately irritating
Species: Rabbit
Observation Period: 24 hours

Specific target organ toxicity - single exposure Not classified.**Specific target organ toxicity - repeated exposure** Not classified.

1-DODECANOL 2000 mg/kg bw/day Subchronic, NOAEL, OECD 422.
Result: No effects
Species: Rat
Test Duration: 13 weeks

Specific target organ toxicity - repeated exposure

1-TETRADECANOL

> 4275 mg/kg bw/day Subchronic NOAEL, Read-across 36653-82-4.

Result: No effects

Species: Rat

Test Duration: 13 weeks

1-DECANOL

2000 mg/kg bw/day Subchronic NOAEL, Draft OECD 422.

Result: No effects

Species: Rat

Organ: Oral

Other information Not available.

12. Ecological information

Ecotoxicological data

Constituents		Species	Test Results
1-DODECANOL (112-53-8)			
Aquatic			
<i>Acute</i>			
Algae	EC50	Green algae (Desmodesmus subspicatus)	0.66 mg/l, 72 hours, OECD 201.
Crustacea	EC50	Water flea (Daphnia magna)	0.765 mg/l, 48 hours, DIN38412.
Fish	LC50	Fathead minnow (Pimephales promelas)	1.01 mg/l, 96 hours, US EPA 1975.
<i>Chronic</i>			
Algae	NOEC	Green algae (Desmodesmus subspicatus)	0.085 mg/l, 72 hours, OECD 201, EU Method C.3.
Crustacea	NOEC	Water flea (Daphnia magna)	14 µg/l, 21 days, OECD 211.
1-TETRADECANOL (112-72-1)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Water flea (Daphnia magna)	3.2 mg/l, 48 hours, OECD 202. ISO 6341 15.
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	> 1 mg/l, 96 hours, OECD 203. EU Method C.1.
<i>Chronic</i>			
Algae	EL50	Green algae (Desmodesmus subspicatus)	> 10 mg/l, 96 hours, OECD 201. DIN 38412 Pt 9.
Crustacea	NOEC	Water flea (Daphnia magna)	1.6 µg/l, 21 days, OECD 211.
Impurities			
1-DECANOL (112-30-1)			
Aquatic			
<i>Acute</i>			
Algae	EC50	Green algae (Desmodesmus subspicatus)	1 - 10 mg/l, 72 hours, OECD 201.
Crustacea	EC50	Harpacticoid copepod (Nitocra spinipes)	3.1 mg/l, 96 hours, OECD 202.
		Water flea (Daphnia magna)	2.1 mg/l, 48 hours, OECD 211.
Fish	LC50	Fathead minnow (Pimephales promelas)	2.4 mg/l, 96 hours, US EPA 1975.
Terrestrial			
<i>Acute</i>			
Other	EC0	Soil bacterium (Pseudomonas putida)	10000 mg/l, 30 minutes

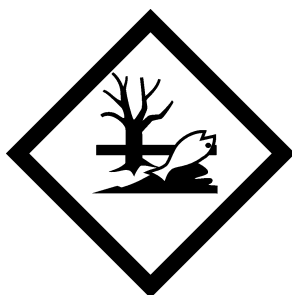
Impurities	Species	Test Results	
	EC50	Springtale (Collembola)	320 mg/kg, 7 days, soil dw. Equivalent to OECD 207.
Ecotoxicity	Not available.		
Aquatic toxicity	Very toxic to aquatic life with long lasting effects.		
Persistence and degradability	Readily biodegradable.		
Photolysis			
Half-life (Photolysis-atmospheric)			
1-DODECANOL		21.2 hours, SRC AOPWIN v1.91.	
1-TETRADECANOL		18.3 hours	
1-DECANOL		25.1 hours, AOPWIN v1.91.	
Biodegradability			
Percent degradation (Aerobic biodegradation)			
1-DODECANOL		69 %, OECD 301B. Result: Readily Biodegradable Test Duration: 28 days	
1-DECANOL		74.6 %, OECD 301D. Result: Readily biodegradable Test Duration: 28 days	
Percent degradation (Aerobic biodegradation-ready)			
1-TETRADECANOL		15.9 mg/l, OECD 301B. Recovery Period: 82.2 %, 28 days	
Percent degradation (Anaerobic biodegradation)			
1-DODECANOL		99.2 Test Duration: 48 hours	
Bioaccumulative potential	Will not bio-accumulate.		
Octanol/water partition coefficient log Kow			
1-DODECANOL		5.36	
1-TETRADECANOL		5.5	
Mobility in soil	Not available.		
Adsorption			
Soil/sediment sorption - log Koc			
1-TETRADECANOL		4.71	
1-DECANOL		> 96, SRC PCKOCWIN.	
Other adverse effects	None known.		
13. Disposal considerations			
Disposal methods	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.		
Waste from residues / unused products	Dispose of in accordance with local regulations.		
Contaminated packaging	Offer rinsed packaging material to local recycling facilities.		
14. Transport information			
DOT			
Not regulated as dangerous goods.			
IATA			
UN number	UN3082		
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Mixture, contains, Dodecanol) (1-Dodecanol)		
Transport hazard class(es)	9		
Packing group	III		

Environmental hazards	Yes
IMDG	
UN number	UN3082
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Mixture, contains, Dodecanol) (1-Dodecanol)
Transport hazard class(es)	9
Packing group	III
Environmental hazards	
Marine pollutant	Yes (P)
EmS No.	F-A, S-F
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

IATA; IMDG



Marine pollutant



15. Regulatory information

US federal regulations All components are on the U.S. EPA TSCA Inventory List.

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

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
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Section 311 hazardous chemical	No
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Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
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
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
Taiwan	Taiwan Inventory	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)

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 - New Jersey RTK - Substances: Listed substance

Contains no New Jersey Right To Know Substances

US - Pennsylvania RTK - Hazardous Substances: Listed substance

1-DECANOL (CAS 112-30-1) Listed.

16. Other information

Further information HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings
 Health: 2
 Flammability: 1
 Physical hazard: 0

NFPA ratings
 Health: 2
 Flammability: 1
 Instability: 0

Disclaimer The submission of the SDS 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.

This data sheet contains changes from the previous version in section(s):
 Product and Company Identification: Product Codes
 Fire-fighting measures: Fire fighting equipment/instructions
 Fire-fighting measures: Unsuitable extinguishing media
 Accidental release measures: Methods for containment
 Accidental release measures: Environmental precautions
 Handling and storage: Storage
 Exposure controls / personal protection: Environmental exposure controls
 Physical & Chemical Properties: Multiple Properties
 Disposal considerations: Disposal methods
 Regulatory Information: United States
 Regulatory information: US federal regulations