

**ALFOL 16 Alcohol (Flaked)**

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Trade name ALFOL 16 Alcohol (Flaked)
Synonyms 1-Hexadecanol, Flaked Cetyl Alcohol
Use Industrial use, Lubricant or lubricant additive, Personal care, Raw material for chemical processes
Company Sasol Chemicals (USA) LLC
(an affiliate of Sasol Chemicals North America LLC)
Address 12120 Wickchester Lane, Houston, TX 77079
Telephone CHEMTREC North America Transportation Emergency (24-hr) +1 (800) 424 9300
CHEMTREC World Wide +1 (703) 527-3887
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SDS and Product Information (8:00am-4:30pm CST) +1 (281) 588 3491
Health and Safety Information (7:30am-4:00pm CST) +1 (281) 588 3492
E-mail address ProdSafe.Shared@sasol.com

SECTION 2 HAZARDS IDENTIFICATION

OSHA/GHS Hazards Combustible dust

LABEL ELEMENTS

Hazard symbols None

Signal word Warning

Hazard statements May form combustible dust concentrations in air (during processing)

Precautionary statements

Prevention P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233 Keep container tightly closed.
Ensure all equipment is electrically grounded before beginning transfer operations.
Apply measures to prevent dust explosions.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

<u>Components</u>	<u>CAS-No.</u>	<u>Weight percent</u>
1-Hexadecanol	36653-82-4	95 - 98
1-Tetradecanol	112-72-1	<3
1-Octadecanol	112-92-5	<3

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See Section 8 for Exposure Guidelines and Section 15 for Regulatory Classifications.

SECTION 4 FIRST AID MEASURES

- Eye contact** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- Skin contact** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. When symptoms persist or in all cases of doubt seek medical advice. Wash contaminated clothing before re-use.
- Inhalation** Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. In case of shortness of breath, give oxygen. Call a physician immediately.
- Ingestion** If swallowed, call a poison control centre or doctor immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

SECTION 5 FIREFIGHTING MEASURES

FLAMMABLE PROPERTIES

Fire/explosion Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. ST class = 1. Severity of dust explosion is moderate. Dust may form explosive mixture in air. NFPA Class IIIB combustible liquid.

Suitable extinguishing media Water spray. Alcohol-resistant foam. Dry chemical. Carbon dioxide (CO₂).

Protective equipment and precautions for firefighters Wear self-contained breathing apparatus and protective suit. Keep containers and surroundings cool with water spray.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning up Evacuate personnel to safe areas. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Remove all sources of ignition. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Non-sparking tools should be used. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Do not flush into surface water or sanitary sewer system.

Spill precautions Material can create slippery conditions.

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SECTION 7 HANDLING AND STORAGE

Safe handling advice Ensure all equipment is electrically grounded before beginning transfer operations. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.

Storage/Transport temperature <= 26 °C
<= 80 °F

Storage/Transport pressure Ambient

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES

Ensure adequate ventilation, especially in confined areas. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

PERSONAL PROTECTIVE EQUIPMENT

Eyes Wear as appropriate:
Goggles. Face-shield.

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

Inhalation Respiratory protection is normally not required except in emergencies or when conditions cause excessive airborne levels of mists or vapors. Use NIOSH approved respiratory protection.

EXPOSURE GUIDELINES

Contains no substances with occupational exposure limit values.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance solid

Colour white

Form flakes

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Odour	sweet
Odour Threshold	No data available
Flash point	149 °C, 300 °F; ASTM D 93;
Flammability	Upper explosion limit: approximately 3.0 %(V) Lower explosion limit: approximately 0.5 %(V)
Boiling point/boiling range	330 - 333 °C, 626 - 631 °F;
Melting point/range	48 - 49 °C, 118 - 121 °F;
Auto-ignition temperature	252 °C, 485 °F;
Decomposition temperature	No data available
Flammability (solid, gas)	No data available
Vapour pressure	< 0.1 mm Hg @ 38 °C, 100 °F;
Vapour density	8.3
Density	0.813 g/cm ³ @ 54 °C, 130 °F;
Relative density	No data available
Water solubility	insoluble
Viscosity	18 cSt @ 49 °C, 120 °F;
pH	No data available
Evaporation rate	No data available
Partition coefficient: n-octanol/water	No data available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	Stable at normal ambient temperature and pressure.
Chemical stability	No decomposition if stored and applied as directed.

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Conditions to avoid Keep away from heat and sources of ignition.

Hazardous decomposition products None.

Materials to avoid Can react with strong oxidizers, inorganic acids, and halogens.

Hazardous polymerisation None.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute dermal toxicity LD50 Rabbit: > 5,000 mg/kg

Acute inhalation toxicity Rat: > 3.2 mg/l; dust/mist; FHSA exposed for 8 hours/day for 10 days showed only hyperactivity. All rats survived at indicated concentration.

Acute oral toxicity LD50 male and female Rat: > 5,000 mg/kg

Skin corrosion/irritation (Rabbit)
Not irritating

Serious eye damage/eye irritation (Rabbit): OECD Test Guideline 405
Not irritating

Respiratory or skin sensitisation Guinea pig: Maximisation Test (literature value)
Based on available data, the classification criteria are not met.

Germ cell mutagenicity **Genotoxicity in vitro:**
In vitro tests did not show mutagenic effects (literature value)
Category approach

Genotoxicity in vivo:
In vivo tests did not show mutagenic effects (literature value)
Category approach

Assessment Mutagenicity:
Based on available data, the classification criteria are not met.

Reproductive toxicity **Reproductive toxicity:**
Rat; Oral; 90-day;
No toxicity to reproduction
Category approach

Assessment Reproductive toxicity:

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Based on available data, the classification criteria are not met.

Teratogenicity:

Rat; Oral; OECD Test Guideline 422

Did not show teratogenic effects in animal experiments
(literature value)

The data are derived from the evaluations or test results achieved with similar products
(conclusion by analogy).

Assessment teratogenicity:

Based on available data, the classification criteria are not met.

STOT - single exposure The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure Rat; Oral; NOAEL: > 4,000 mg/kg
(literature value)
The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration toxicity Not applicable

Carcinogenicity **Assessment carcinogenicity:**
Contains no ingredient listed as a carcinogen

SECTION 12 ECOLOGICAL INFORMATION

Aquatic toxicity Aquatic toxicity is unlikely due to low solubility.

Toxicity to fish LC50 (Oncorhynchus mykiss (rainbow trout)) 96 hours; semi-static test
In the range of water solubility not toxic under test conditions.
(literature value)

Toxicity to aquatic invertebrates EC50 (Daphnia magna (Water flea)) 48 hours
In the range of water solubility not toxic under test conditions.
(predicted value)

Toxicity to algae ErL50 (Desmodesmus subspicatus (green algae)) 96 hours; OECD Test Guideline 201
In the range of water solubility not toxic under test conditions.
(literature value)

Chronic toxicity to fish No data available

Chronic toxicity to aquatic invertebrates NOEC (Daphnia magna (Water flea)) 21 d
In the range of water solubility not toxic under test conditions.
(predicted value)

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Biodegradation Readily biodegradable.
OECD Test Guideline 301B (28 d): > 60 %
(literature value)

Bioaccumulative potential No data available

Mobility in soil No data available

Other adverse effects No data available

SECTION 13 DISPOSAL CONSIDERATIONS

Waste Code Any unused product or empty containers may be disposed of as non-hazardous in accordance with state and federal requirements. Re-evaluation of the product may be required by the user at the time of disposal, since the product uses, transformations, mixtures, contamination, and spillage may change the classification. If the resulting material is determined to be hazardous, please dispose in accordance with state and federal (40 CFR 262) hazardous waste regulations.

Disposal methods Dispose of only in accordance with local, state, and federal regulations.

Empty containers. Empty containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, triple-rinsed, properly bunged and promptly returned to a drum reconditioner, or properly disposed.

SECTION 14 TRANSPORT INFORMATION

DOT Not regulated in solid form; however, if shipped in molten form above 100 °C, use the following description: UN3257, Elevated temperature liquid, n.o.s. (Hexadecanol), 9, PG III

IATA Not regulated in solid form; however, if product is in molten form and above 100 °C then it is forbidden for air transportation.

IMDG Not regulated in solid form; however, if shipped in molten form above 100 °C, use the following description: UN3257, Elevated temperature liquid, n.o.s. (Hexadecanol), 9, PG III

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Remarks No data available

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SECTION 15 REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS**TSCA Inventory Listing****Components****CAS-No.**

1-Hexadecanol

36653-82-4

1-Tetradecanol

112-72-1

1-Octadecanol

112-92-5

All chemical substances in this product are either on the TSCA Active Inventory, or in compliance with the inventory.

SARA 302 Status**Components****CAS-No.****Weight percent**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 311/312 Classification

Should this product meet EPCRA 311/312 Tier reporting criteria of 40 CFR 370, refer to Section 2 of this SDS for appropriate classification and Section 3 for components that meet the hazardous classification.

SARA 313 Chemical**Components****CAS-No.****Weight percent**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US. EPA CERCLA Hazardous Substances (40 CFR 302)**Components****Reportable Quantity****Weight percent**

none

INTERNATIONAL REGULATIONS**WHMIS Classification**

Combustible dust

European Union

The product does not need to be labelled in accordance with EC directives or respective national laws.

Australia. Inventory of Chemical Substances (AICS)

Listed

Japan. Inventory of Existing and New Chemical Substances (ENCS)

Listed

Japan. ISHL - Inventory of Chemical Substances

Listed

Canada. Domestic Substances List (DSL) Inventory

Listed

Canada. Non-Domestic Substance Listing (NDSL)

Not listed

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Philippines. Inventory of Chemicals / Chemical Substances (PICCS)	Listed
Korea. Existing Chemicals Inventory (KECI)	Listed
China. Inventory of Existing Chemical Substances (IECSC)	Listed
Mexico. National Inventory of Chemical Substances (INSQ)	Listed
New Zealand. Inventory of Chemical Substances (NZIoC)	Listed
Switzerland. Inventory of Notified New Substances (CHINV)	Listed
Taiwan. National Existing Chemical Inventory (NECI)	Listed

Please note: The names and CAS numbers which are used for this product in the stated inventories may deviate from the information which is listed in Section 3.

STATE REGULATIONS

California Prop. 65

Components

none

CAS-No.

SECTION 16 OTHER INFORMATION

HAZARD RATINGS

	<u>Health</u>	<u>Flammability</u>	<u>Physical Hazard/ Instability</u>
HMIS®	1	3	0
NFPA	1	3	0

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