

ALFOTERRA® 145-8S 90 Surfactant

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

Trade name	ALFOTERRA® 145-8S 90 Surfactant	
Synonyms	Alcohol propoxysulfate, sodium salt (aqueous solution)	
Use	Industrial use, Surfactant, Oilfield	
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)	(800) 424-9300
	CHEMTREC World Wide	(703) 527-3887
	Other Emergencies (24-hr)	(337) 494-5142
	MSDS and Product Information (8:00am-4:30pm CST)	(281) 588-3491
	Health and Safety Information (7:30am-4:00pm CST)	(281) 588-3492
E-mail address	SasolElectronicSDS@us.sasol.com	

SECTION 2 HAZARDS IDENTIFICATION

GHS Hazards

Serious eye damage	Category 1
Chronic aquatic toxicity	Category 2

LABEL ELEMENTS

Hazard symbols



Signal word Danger

Hazard statements H318 Causes serious eye damage.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention P280 Wear eye protection/ face protection.
P273 Avoid release to the environment.

Response P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor/ physician.
P391 Collect spillage.

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Disposal P501 Dispose of contents/ container to an approved waste disposal plant.

Additional advice Pre-existing eye, skin, and respiratory disorders may be aggravated by exposure to this product.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

<u>Components</u>	<u>CAS-No.</u>	<u>Weight percent</u>
Alcohols, C14-15-branched and linear, propoxylated, sulfated, sodium salts	958238-82-9	75 - 91
Water	7732-18-5	<=25

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. 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 NFPA Class IIIB combustible liquid.

Suitable extinguishing media Water spray, Foam, Dry chemical, Carbon dioxide (CO₂)

Protective equipment and precautions for firefighters Wear self contained breathing apparatus for fire fighting if necessary.

Further information Keep containers and surroundings cool with water spray. Do not use a solid water stream as it may scatter and spread fire. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

SECTION 6 ACCIDENTAL RELEASE MEASURES

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Methods and materials for containment and cleaning up Evacuate personnel to safe areas. Remove all sources of ignition. Contain spilled liquid with sand, absorbent material, or concrete dikes for recovery or disposal. Large spills should be collected mechanically (remove by pumping) for disposal. Place in container for disposal according to local / national regulations (see Section 13). Do not flush into surface water or sanitary sewer system. For environmental releases and spills into waterways, immediately contact the local authorities.

SECTION 7 HANDLING AND STORAGE

Safe handling advice Take precautionary measures against static discharges.

Storage/Transport pressure Consult the ISO container maximum pressure specifications prior to loading or unloading.

Load/Unload temperature 64 - 86 °F
18 - 30 °C

Storage and handling materials Suitable: Stainless steel, fiberglass reinforced plastics, carbon steel coated with baked phenolic. Any moisture may cause rusting of carbon steel.
Unsuitable: Isophthalic polyester

Further information on storage conditions Heating above 40°C (104°F) must be avoided, even briefly, because hydrolysis may occur. The ideal storage temperature is 10 - 30°C (50 - 86°F). Prolonged storage in the presence of air or oxygen may cause product degradation. Oxidation is not expected when stored under a nitrogen atmosphere. Inert gas blanket and breathing system needed to maintain color stability. Use dry inert gas having at least -40°C (-40°F) dew point.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES

Ensure adequate ventilation, especially in confined areas.

PERSONAL PROTECTIVE EQUIPMENT

Eyes Wear as appropriate: Goggles, Face-shield

Skin Full protective clothing, chemical boots, and chemical gloves.

Inhalation Use respirator when performing operations involving potential exposure to vapour of the product. Use NIOSH approved respiratory protection.

EXPOSURE GUIDELINES

There are no exposure limits established for this product. Trace amounts of propylene oxide may be present in this product., The propylene oxide in this product is not expected to result in significant exposures or present a health hazard.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance liquid/paste;

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Colour	light yellow to brown
Form	liquid, slurry
Odour	slight hydrocarbon-like
Odour Threshold	no data available
Flash point	> 101 °C, > 213 °F;
Flammability	Upper explosion limit: Not determined Lower explosion limit: Not determined
Boiling point/boiling range	not applicable
Melting point/range	pour point: -33 °C, -27 °F;
Auto-ignition temperature	not applicable
Decomposition temperature	no data available
Flammability (solid, gas)	no data available
Vapour pressure	no data available
Vapour density	no data available
Density	1.05 g/cm ³ @ 40 °C, 104 °F;
Specific gravity	no data available
Water solubility	completely miscible
Viscosity	545 cSt @ 40 °C, 104 °F;
pH	6.5 - 11.5 @ 25 °C, 77 °F;
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 Reacts slowly with air or oxygen. Hydrolysis is catalyzed by heat and low pH conditions. Storage under heated conditions in the presence of air or oxygen increases reaction rate. Lower temperatures will allow for longer storage time and higher temperatures will shorten the storage time if stored under an air or oxygen atmosphere.

Hazardous decomposition products When storing this product in air or oxygen, decomposition may occur, generating vapors which could be irritating. Ensure adequate ventilation, especially in confined areas. Oxidation is not expected when stored under a nitrogen atmosphere.

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

Hazardous polymerisation None.

SECTION 11 TOXICOLOGICAL INFORMATION

Additional Remarks Information given is based on data obtained from similar substances.

Acute dermal toxicity no data available

Acute inhalation toxicity no data available

Acute oral toxicity LD50 rat: > 2,600 mg/kg

Skin corrosion/irritation Primary irritation (rabbit): 0.7 (Max. score is 8.0.); Draize Test

Eye damage/irritation May cause eye burns due to high pH.

Respiratory or skin sensitization no data available

Germ cell mutagenicity **Genotoxicity in vitro:**
no data available

Genotoxicity in vivo:
no data available

Assessment Mutagenicity:
While the material was not mutagenic in an Ames Assay, changes in the number of chromosomes (polyploidy) were observed in another in-vitro assay (Chromosome Aberration Assay). The relevance of this result to human health is questionable. Results from a more relevant follow-up study (in vivo Micronucleus Assay) indicated the material was not genotoxic (absence of micronuclei formation). Based on all of the results, this material is not considered to be a human health concern for genotoxicity.

Reproductive toxicity **Reproductive toxicity:**
no data available

Assessment Reproductive toxicity:
no data available

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Teratogenicity:
no data available

Assessment teratogenicity:
no data available

STOT - single exposure no data available

STOT - repeated exposure High oral doses (250 and 500 mg/kg/day) resulted in increased liver weights and gastric lesions in laboratory animals. These effects were not observed at a lower dose (100 mg/kg/day). No adverse effects for humans are anticipated under expected handling conditions.

Aspiration toxicity no data available

Carcinogenicity **Assessment carcinogenicity:**
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

SECTION 12 ECOLOGICAL INFORMATION

Aquatic toxicity Toxic to aquatic life with long lasting effects.

Toxicity to fish LC50 (Pimephales promelas (fathead minnow)) 96 hours: 1.31 mg/l

Toxicity to aquatic invertebrates EC50 (Daphnia pulex (Water flea)) 48 hours: 2.89 mg/l

Toxicity to algae ErC50 (Pseudokirchneriella subcapitata (green algae)) 96 hours: 1.70 mg/l

Chronic toxicity to fish no data available

Chronic toxicity to aquatic invertebrates no data available

Biodegradation Not readily biodegradable.
OECD Test Guideline 301F (28 d): < 60 %

Bioaccumulation no data available

Mobility in soil no data available

Other adverse effects no data available

SECTION 13 DISPOSAL CONSIDERATIONS

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Waste Code This product is not classified or listed as a hazardous waste according to 40 CFR 261. However, Sasol recommends the substance waste be disposed according to the criterion defined for "P-listed" chemicals.

Disposal methods Do not allow product to enter surface water or sanitary sewer systems. Dispose of only in accordance with local, state, and federal regulations. Possible disposal options include:

- (a) on-shore deep-well injection;
- (b) incineration in a disposal facility; or
- (c) landfilled when in compliance with local regulation if it cannot be destroyed or disposed of in accordance with paragraph (a) or (b).

Disposal may include disposal of "waste" which includes wastes resulting from rinsing transport vessels, storage vessels or blending vessels that contained the substance, process effluents, and any residual amounts of the substance.

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 UN 3082, Environmentally hazardous substance, liquid, n.o.s.(Alcohol propoxysulfate), 9, III, Marine pollutant
Not regulated in non-bulk packaging of 119 gallons or less per container.

IATA UN 3082, Environmentally hazardous substance, liquid, n.o.s.(Alcohol propoxysulfate), 9, III

IMDG UN 3082, Environmentally hazardous substance, liquid, n.o.s., (Alcohol propoxysulfate), 9, III, Marine pollutant
This product is regulated as a Marine Pollutant when shipped by water in all quantities according to the IMDG Code.

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

Remarks no data available

SECTION 15 REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

OSHA Hazards (HCS 1994)
Corrosive to eyes

TSCA Inventory Listing
Components

CAS-No.

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Poly[oxy(methyl-1,2-ethanediyl)], alpha-sulfo-omega-hydroxy-, C14-15-branched and linear alkyl ethers, sodium salts 958238-82-9
 Water 7732-18-5
 This product is the subject of a SNUR (40CFR 721.10284) under TSCA.

SARA 302 Status

<u>Components</u>	<u>CAS-No.</u>	<u>Weight percent</u>
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.		

SARA 311/312 Classification

"Immediate (acute) health hazard"

SARA 313 Chemical

<u>Components</u>	<u>CAS-No.</u>	<u>Weight percent</u>
SARA 313: 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)

<u>Components</u>	<u>Reportable Quantity</u>	<u>Weight percent</u>
none		

INTERNATIONAL REGULATIONS

WHMIS Classification

Class D, Division 2, Subdivision B: Toxic material.

European Union

Classification according to Regulation (EU) 1272/2008.

Serious eye damage, Category 1
 Chronic aquatic toxicity, Category 2

Australia. Inventory of Chemical Substances (AICS) Not listed

Japan. Inventory of Existing and New Chemical Substances (ENCS) Not listed

Japan. Industrial Safety & Health Law (ISHL) Inventory Not listed

Canada. Domestic Substances List (DSL) Inventory Not listed
 The importation of this product into Canada is subject to Ministerial Condition No. 17073.

Canadian Non-Domestic Substance Listing (NDSL) Not listed

European Inventory of Existing Commercial Chemical Substances (EINECS) Listing Listed

Philippines. Inventory of Chemicals / Chemical Substances (PICCS) Not listed

Korea. Existing Chemicals Inventory (KECI) Not listed

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China. Inventory of Existing Chemical Substances (IECSC)	Not listed
Mexico. National Inventory of Chemical Substances (INSQ)	Not listed
New Zealand. Inventory of Chemicals (NZIoC)	Not listed
Switzerland. Inventory of Notified New Substances (CHINV)	Not 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

Oxirane, 2-methyl-

CAS-No.

75-56-9

This product may contain detectable quantities of propylene oxide which is a chemical on the California Proposition 65 list. The level is typically below 1.0 ppm, although it may vary. The manufacturing process is controlled to reduce the residual propylene oxide content.

SECTION 16 OTHER INFORMATION

HAZARD RATINGS

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

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