

HALLIBURTON

MATERIAL SAFETY DATA SHEET

Product Trade Name: ChannelSeal® II Surfactant

Revision Date: 25-Sep-2013

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Trade Name: ChannelSeal® II Surfactant

Synonyms: None

Chemical Family: Blend

Application: Surfactant

Manufacturer/Supplier Halliburton Energy Services
P.O. Box 1431
Duncan, Oklahoma 73536-0431
Emergency Telephone: (281) 575-5000

Prepared By Chemical Compliance
Telephone: 1-580-251-4335
e-mail: fdunexchem@halliburton.com

2. COMPOSITION/INFORMATION ON INGREDIENTS

Substances	CAS Number	PERCENT (w/w)	ACGIH TLV-TWA	OSHA PEL-TWA
N-Tallow alkyltrimethylamines, ethoxylated	61790-85-0	60 - 100%	Not applicable	Not applicable
Ethylene glycol	107-21-1	10 - 30%	100 mg/m ³	50 ppm CEIL

3. HAZARDS IDENTIFICATION

Hazard Overview May cause eye and skin burns. May cause respiratory irritation. May be harmful if swallowed. May be absorbed through the skin. May cause birth defects.

4. FIRST AID MEASURES

Inhalation If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.

Skin In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Get medical attention. Remove contaminated clothing and launder before reuse.

Eyes In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.

Ingestion Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person.

Notes to Physician Not Applicable

5. FIRE FIGHTING MEASURES

Flash Point/Range (F):	> 170
Flash Point/Range (C):	> 76
Flash Point Method:	PMCC
Autoignition Temperature (F):	Not Determined
Autoignition Temperature (C):	Not Determined
Flammability Limits in Air - Lower (%):	Not Determined
Flammability Limits in Air - Upper (%):	Not Determined

Fire Extinguishing Media Water fog, carbon dioxide, foam, dry chemical.

Special Exposure Hazards Decomposition in fire may produce toxic gases. Closed containers may explode in fire. Use water spray to cool fire exposed surfaces. Vapors are heavier than air and may accumulate in low areas. Vapors may travel along the ground to be ignited at distant locations.

Special Protective Equipment for Fire-Fighters Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

NFPA Ratings: Health 2, Flammability 2, Reactivity 0
HMIS Ratings: Health 2, Flammability 2, Reactivity 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures Use appropriate protective equipment.

Environmental Precautionary Measures Prevent from entering sewers, waterways, or low areas.

Procedure for Cleaning / Absorption Isolate spill and stop leak where safe. Contain spill with sand or other inert materials. Scoop up and remove.

7. HANDLING AND STORAGE

Handling Precautions Avoid contact with eyes, skin, or clothing. Avoid breathing vapors. Wash hands after use. Launder contaminated clothing before reuse.

Storage Information Store away from oxidizers. Keep from heat, sparks, and open flames. Keep container closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls Use in a well ventilated area. Local exhaust ventilation should be used in areas without good cross ventilation.

Respiratory Protection In high concentrations, supplied air respirator or a self-contained breathing apparatus.

Hand Protection Impervious rubber gloves.

Skin Protection Rubber apron.

Eye Protection Chemical goggles; also wear a face shield if splashing hazard exists.

Other Precautions Eyewash fountains and safety showers must be easily accessible.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Color:	Amber
Odor:	Mild ether
pH:	11.1
Specific Gravity @ 20 C (Water=1):	0.97
Density @ 20 C (lbs./gallon):	8.1
Bulk Density @ 20 C (lbs/ft3):	Not Determined
Boiling Point/Range (F):	Not Determined
Boiling Point/Range (C):	Not Determined
Freezing Point/Range (F):	>= 10
Freezing Point/Range (C):	Not Determined
Vapor Pressure @ 20 C (mmHg):	Not Determined
Vapor Density (Air=1):	Not Determined
Percent Volatiles:	Not Determined
Evaporation Rate (Butyl Acetate=1):	Not Determined
Solubility in Water (g/100ml):	Disperses
Solubility in Solvents (g/100ml):	Not Determined
VOCs (lbs./gallon):	Not Determined
Viscosity, Dynamic @ 20 C (centipoise):	30-110
Viscosity, Kinematic @ 20 C (centistokes):	Not Determined
Partition Coefficient/n-Octanol/Water:	Not Determined
Molecular Weight (g/mole):	Not Determined

10. STABILITY AND REACTIVITY

Stability Data:	Stable
Hazardous Polymerization:	Will Not Occur
Conditions to Avoid	Keep away from heat, sparks and flame.
Incompatibility (Materials to Avoid)	Strong oxidizers.
Hazardous Decomposition Products	Oxides of nitrogen. Carbon monoxide and carbon dioxide.
Additional Guidelines	Not Applicable

11. TOXICOLOGICAL INFORMATION

Principle Route of Exposure None known

Symptoms related to exposure

Acute Toxicity

Inhalation	May cause respiratory irritation.
Eye Contact	Causes severe eye irritation May cause eye burns.
Skin Contact	Causes severe skin irritation. May cause skin burns. May be absorbed through the skin and produce effects similar to those caused by inhalation and/or ingestion.
Ingestion	Causes burns of the mouth, throat and stomach. May cause abdominal pain, vomiting, nausea, and diarrhea.

Chronic Effects/Carcinogenicity

Prolonged or repeated exposure may cause kidney damage. Prolonged or repeated exposure may cause central nervous system and brain effects. Prolonged or repeated exposure may cause embryo and fetus toxicity.

Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
N-Tallow alkyltrimethyldiamines, ethoxylated	61790-85-0	No data available	No data available	No data available
Ethylene glycol	107-21-1	4000 mg/kg (Rat) 1670 mg/kg (Cat)	9530 µL/kg (Rabbit)	No data available

12. ECOLOGICAL INFORMATION**Ecotoxicological Information****Ecotoxicity Product**

Acute Fish Toxicity:	Not determined
Acute Crustaceans Toxicity:	Not determined
Acute Algae Toxicity:	Not determined

Ecotoxicity Substance

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
N-Tallow alkyltrimethyldiamines, ethoxylated	61790-85-0	No information available	No information available	No information available	No information available
Ethylene glycol	107-21-1	EC50: 6500 - 13000 mg/L (Pseudokirchneriella subcapitata)	LC50: 41000 mg/L (Oncorhynchus mykiss)	No information available	EC50: 46300 mg/L (Daphnia magna)

12.2 Persistence and degradability

No information available

12.3 Bioaccumulative potential

No information available

12.4 Mobility in soil

No information available

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects**13. DISPOSAL CONSIDERATIONS****Disposal Method**

Disposal should be made in accordance with federal, state, and local regulations.

Contaminated Packaging

Follow all applicable national or local regulations.

14. TRANSPORT INFORMATION**Land Transportation**

DOT

UN3267, Corrosive Liquid, Basic, Organic, N.O.S. (Contains Alkylamine) , 8 , III
NAERG 153

Canadian TDG

Corrosive Liquid, Basic, Organic, N.O.S. (Contains Alkylamine) , 8 , UN3267 , III

ADR

UN3267, Corrosive Liquid, Basic, Organic, N.O.S (Contains Alkylamine) , 8 , III

Air Transportation

ICAO/IATA

UN3267, Corrosive Liquid, Basic, Organic, N.O.S , 8 , III (Contains Alkylamine)

Sea Transportation

IMDG

UN3267, Corrosive Liquid, Basic, Organic, N.O.S (Contains Alkylamine) , 8 , III
EmS F-A, S-B

Other Transportation Information

Labels: Corrosive

15. REGULATORY INFORMATION

US Regulations

US TSCA Inventory	All components listed on inventory or are exempt.
EPA SARA Title III Extremely Hazardous Substances	Not applicable
EPA SARA (311,312) Hazard Class	Acute Health Hazard Chronic Health Hazard
EPA SARA (313) Chemicals	This product contains toxic chemical(s) listed below which is(are) subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR Part 372: Ethylene Glycol//107-21-1 Glycol ether
EPA CERCLA/Superfund Reportable Spill Quantity	Not applicable.
EPA RCRA Hazardous Waste Classification	If product becomes a waste, it does NOT meet the criteria of a hazardous waste as defined by the US EPA.
California Proposition 65	All components listed do not apply to the California Proposition 65 Regulation.
MA Right-to-Know Law	One or more components listed.

NJ Right-to-Know Law One or more components listed.

PA Right-to-Know Law One or more components listed.

Canadian Regulations

Canadian DSL Inventory All components listed on inventory or are exempt.

WHMIS Hazard Class D2B Toxic Materials
E Corrosive Material

16. OTHER INFORMATION

The following sections have been revised since the last issue of this SDS

Not applicable

Additional Information For additional information on the use of this product, contact your local Halliburton representative.

For questions about the Safety Data Sheet for this or other Halliburton products, contact Chemical Compliance at 1-580-251-4335.

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*****END OF MSDS*****