

MATERIAL SAFETY DATA SHEET

Product Trade Name: SuperFlo 2000

Revision Date: 15-Jul-2014

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Statement of Hazardous Nature Hazardous according to the criteria of NOHSC, Dangerous Goods according to the criteria of ADG.

Manufacturer/Supplier Halliburton Australia Pty. Ltd.
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Product Emergency Telephone

Australia: 08-64244950
Papua New Guinea: 05 1 281 575 5000
NewZealand: 06-7559274

Fire, Police & Ambulance - Emergency Telephone

Australia: 000
Papua New Guinea: 000
New Zealand: 111

Identification of Substances or Preparation

Product Trade Name: SuperFlo 2000
Synonyms: None
Chemical Family: Surfactant Blend
UN Number: UN1993
Dangerous Goods Class: 3
Subsidiary Risk: None
Hazchem Code: 3[Y]E
Poisons Schedule: S6
Application: Surfactant

Prepared By Chemical Compliance
Telephone: 1-580-251-4335
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2. HAZARDS IDENTIFICATION

Statement of Hazardous Nature Hazardous according to the criteria of NOHSC, Dangerous Goods according to the criteria of ADG.

Hazard Overview

May cause eye, skin, and respiratory irritation. May cause headache, dizziness, and other central nervous system effects. May be fatal if swallowed. May cause blindness. May be absorbed through the skin. Repeated overexposure may cause liver and kidney effects. May cause allergic skin reaction. Flammable.

Classification

Xn - Harmful.

Risk Phrases

R10 Flammable.
 R43 May cause sensitization by skin contact.
 R36/38 Irritating to eyes and skin.
 R68/20/21/22 Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.

Safety Phrases

S7 Keep container tightly closed.
 S16 Keep away from sources of ignition - No Smoking.
 S24 Avoid contact with skin.
 S37 Wear suitable gloves.
 S45 In case of accident or if you feel unwell, seek medical advice immediately.
 S36/37 Wear suitable protective clothing and gloves.

HSNO Classification

3.1C Flammable Liquids - Medium hazard
 6.1E (Oral) Acutely Toxic Substances
 6.1E (Dermal) Acutely Toxic Substances
 6.1E (Inhalation) Acutely Toxic Substances
 6.3A Irritating to the skin
 6.4A Irritating to the eye

3. COMPOSITION/INFORMATION ON INGREDIENTS
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Substances	CAS Number	PERCENT (w/w)	Australia NOHSC	New Zealand WES	ACGIH TLV-TWA
Terpene hydrocarbon by-products	68956-56-9	10 - 30%	Not applicable	Not applicable	Not applicable
Methanol	67-56-1	5 - 10%	TWA: 200 ppm TWA: 262 mg/m ³ STEL: 250 ppm STEL: 328 mg/m ³	STEL: 250 ppm STEL: 328 mg/m ³ TWA: 200 ppm TWA: 262 mg/m ³	TWA: 200 ppm STEL: 250 ppm
Coco diethanolamide	Proprietary	5 - 10%	Not applicable	Not applicable	Not applicable
Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides	68391-01-5	5 - 10%	Not applicable	Not applicable	Not applicable
Nonylphenol ethoxylate	Proprietary	5 - 10%	Not applicable	Not applicable	Not applicable
Linanol	Proprietary	1 - 5%	Not applicable	Not applicable	Not applicable
2,6-Octadien-1-ol, 3,7-dimethyl-, (2Z)-	106-25-2	1 - 5%	Not applicable	Not applicable	Not applicable
2,6-Octadien-1-ol, 3,7-dimethyl-, (2E)-	106-24-1	1 - 5%	Not applicable	Not applicable	Not applicable
Citronellol	106-22-9	1 - 5%	Not applicable	Not applicable	Not applicable
Isopropanol	67-63-0	1 - 5%	TWA: 400 ppm TWA: 983 mg/m ³ STEL: 500 ppm STEL: 1230 mg/m ³	STEL: 500 ppm STEL: 1230 mg/m ³ TWA: 400 ppm TWA: 983 mg/m ³	TWA: 200 ppm STEL: 400 ppm

Non-Hazardous Substance to Total of 100%

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	Wash with soap and water. Get medical attention if irritation persists. 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

Suitable Extinguishing Media

Carbon dioxide, dry chemical, foam.

Extinguishing media which must not be used for safety reasons

None known.

Special Exposure Hazards May be ignited by heat, sparks or flames. Use water spray to cool fire exposed surfaces. Closed containers may explode in fire. Decomposition in fire may produce toxic gases. Runoff to sewer may cause fire or explosion hazard.

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

6. ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures Use appropriate protective equipment. Wear self-contained breathing apparatus in enclosed areas.

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

Procedure for Cleaning / Absorption Isolate spill and stop leak where safe. Remove ignition sources and work with non-sparking tools. Contain spill with sand or other inert materials. Scoop up and remove.

7. HANDLING AND STORAGE

Handling Precautions Wash hands after use. Launder contaminated clothing before reuse. Ground and bond containers when transferring from one container to another. Avoid contact with eyes, skin, or clothing. Avoid breathing vapors. Avoid breathing mist.

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	If engineering controls and work practices cannot keep exposure below occupational exposure limits or if exposure is unknown, wear a NIOSH certified, European Standard EN 149, AS/NZS 1715:2009, or equivalent respirator when using this product. Selection of and instruction on using all personal protective equipment, including respirators, should be performed by an Industrial Hygienist or other qualified professional. Organic vapor respirators have a short service life. Positive pressure self-contained breathing apparatus if methanol is released.
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:	Straw
Odor:	Alcohol
pH:	Not Determined
Specific Gravity @ 20 C (Water=1):	0.99
Density @ 20 C (kg/l):	0.92
Bulk Density @ 20 C (kg/M3):	Not Determined
Boiling Point/Range (C):	Not Determined
Freezing Point/Range (C):	-29
Pour Point/Range (C):	Not Determined
Flash Point/Range (C):	30
Flash Point Method:	PMCC
Autoignition Temperature (C):	Not Determined
Flammability Limits in Air - Lower (g/m³):	Not Determined
Flammability Limits in Air - Lower (%):	Not Determined
Flammability Limits in Air - Upper (g/m³):	Not Determined
Flammability Limits in Air - Upper (%):	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):	Soluble
Solubility in Solvents (g/100ml):	Not Determined
VOCs (g/l):	Not Determined
Viscosity, Dynamic @ 20 C (centipoise):	Not Determined
Viscosity, Kinematic @ 20 C (centistokes):	Not Determined
Partition Coefficient/n-Octanol/Water:	Not Determined
Molecular Weight (g/mole):	Not Determined
Decomposition Temperature (C):	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	Carbon monoxide and carbon dioxide.
Additional Guidelines	Not Applicable

11. TOXICOLOGICAL INFORMATION

Principle Route of Exposure Eye or skin contact, inhalation.

Symptoms related to exposure

Acute Toxicity

Inhalation

May cause respiratory irritation. May cause central nervous system depression including headache, dizziness, drowsiness, incoordination, slowed reaction time, slurred speech, giddiness and unconsciousness.

Eye Contact

May cause moderate eye irritation.

Skin Contact

May cause skin irritation. May be absorbed through the skin and contribute to the symptoms listed under ingestion. May cause skin defatting with prolonged exposure. May cause an allergic skin reaction.

Ingestion

May be fatal or cause blindness if swallowed. May cause headache, dizziness, nausea, vomiting, gastrointestinal irritation and central nervous system depression. Aspiration can be a hazard if this material is swallowed.

Chronic Effects/Carcinogenicity

Prolonged or repeated exposure may cause eye, blood, lung, liver, kidney, heart, central nervous system and spleen damage.

Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Terpene hydrocarbon by-products	68956-56-9	No data available	No data available	No data available
Methanol	67-56-1	> 1187 - 2769 mg/kg (Rat) 3000 mg/kg (Monkey) 300 mg/kg (Human)	15800 mg/kg (Rabbit) 393 mg/kg (Primate)	87.5 mg/L (Rat) 6h vapour 128.2 mg/L (Rat) 4h vapour 83.2 mg/L (Rat) 4 h 64000 ppm (Rat) 4 h 10 mg/L (Human)
Coco diethanolamide	Proprietary	12400 µL/kg (Rat)	No data available	No data available
Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides	68391-01-5	No data available	No data available	No data available
Nonylphenol ethoxylate	Proprietary	1310 mg/kg (Rat) 1410 µL/kg (Rat)	2830 µL/kg (Rabbit) 2 mL/kg (Rabbit)	No data available
Linanol	Proprietary	2790 mg/kg (Rat)	5610 mg/kg (Rat)	No data available
2,6-Octadien-1-ol, 3,7-dimethyl-, (2Z)-	106-25-2	4500 mg/kg (Rat)	5000 mg/kg (Rabbit)	No data available
2,6-Octadien-1-ol, 3,7-dimethyl-, (2E)-	106-24-1	3600 mg/kg (Rat)	5000 mg/kg (Rabbit)	No data available
Citronellol	106-22-9	3450 mg/kg (Rat)	2650 mg/kg (Rabbit)	No data available
Isopropanol	67-63-0	4396 mg/kg (Rat) 5840 mg/kg (Rat) 3600 mg/kg (Mouse)	12800 mg/kg (Rat) 12870 mg/kg (Rabbit) 16.4 mL/kg (Rabbit)	72.6 mg/L (Rat) 4h >10000 ppm (Rat) 6h

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	Toxicity to Invertebrates
Terpene hydrocarbon by-products	68956-56-9	No information available	TLM96: 550 mg/l (Pimephales promelas)	No information available	No information available
Methanol	67-56-1	EC50(96h): ca. 22000 mg/L (Pseudokirchnerella subcapitata, Growth rate)	LC50: 28200 mg/l (Pimephales promelas) LC50(96h): 12700 – 15400 mg/L (Lepomis macrochirus) 200 hr NOEC for % Embryo-cardiovascular for stage 2 = 15800 mg/L	IC50(3h): > 1000 mg/L (activated sludge)	EC50(96h): 18260 mg/L (Daphnia magna) NOEC(21d): 122 mg/L (Daphnia magna, Reproduction)
Coco diethanolamide	Proprietary	No information available	No information available	No information available	No information available
Quaternary ammonium compounds, benzyl-C12-18-alkyldi methyl, chlorides	68391-01-5	No information available	No information available	No information available	No information available
Nonylphenol ethoxylate	Proprietary	No information available	No information available	No information available	No information available
Linanol	Proprietary	No information available	No information available	No information available	No information available
2,6-Octadien-1-ol, 3,7-dimethyl-, (2Z)-	106-25-2	No information available	No information available	No information available	No information available
2,6-Octadien-1-ol, 3,7-dimethyl-, (2E)-	106-24-1	No information available	No information available	No information available	No information available
Citronellol	106-22-9	No information available	No information available	No information available	No information available
Isopropanol	67-63-0	EC50(72h): > 1000 mg/l(Desmodesmus subspicatus) EC50(7d): 1800 mg/L (mean extinction value) (Scenedesmus quadricauda)	LC50(96h): 9640 mg/l (Pimephales promelas) LC50(7d): 7060 mg/L (Poecilia reticulata)	TT(16h): 1050 mg/L (Pseudomonas putida)	EC50(48h): 13299 mg/l (Daphnia magna) EC50(24h): > 10000 mg/L (Daphnia magna)

12.2. Persistence and degradability

No information available

Substances	Persistence and Degradability
Methanol	Readily biodegradable (95-97% @ 20d)
Coco diethanolamide	Readily biodegradable (71 - 96% @ 28d)
Isopropanol	Readily biodegradable (53% @ 5d)

12.3. Bioaccumulative potential

No information available

Substances	Log Pow
Methanol	-0.77 BCF 1.0 – 4.5 (Cyprinus carpio) BCF < 10 (Leuciscus idus melanotus)
Coco diethanolamide	3.52
Isopropanol	0.05 @ 25°C

12.4. Mobility in soil

No information available

12.5. Results of PBT and vPvB assessment

No information available.

Substances	PBT and vPvB assessment
Methanol	Not PBT/vPvB
Isopropanol	Not PBT/vPvB

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

Australia Dangerous Goods

UN Number:	UN1993
UN Proper Shipping Name:	Flammable Liquid, N.O.S. (Contains Methanol, Terpenes)
Transport Hazard Class(es):	3
Packing Group:	III

IMDG/IMO

UN Number:	UN1993
UN Proper Shipping Name:	Flammable Liquid, N.O.S. (Contains Methanol, Terpenes)
Transport Hazard Class(es):	3
Packing Group:	III
Environmental Hazards:	Not applicable
EMS:	EmS F-E, S-E

IATA/ICAO

UN Number:	UN1993
UN Proper Shipping Name:	Flammable Liquid, N.O.S. (Contains Methanol, Terpenes)
Transport Hazard Class(es):	3
Packing Group:	III

Special Precautions for User: None
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable

15. REGULATORY INFORMATION

Chemical Inventories

Australian AICS Inventory	All components listed on inventory or are exempt.
New Zealand Inventory of Chemicals	All components listed on inventory or are exempt.
US TSCA Inventory	All components listed on inventory or are exempt.
EINECS Inventory	This product does not comply with EINECS

Classification Xn - Harmful.

Risk Phrases R10 Flammable.
R43 May cause sensitization by skin contact.
R36/38 Irritating to eyes and skin.
R68/20/21/22 Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.

Safety Phrases

S7 Keep container tightly closed.
S16 Keep away from sources of ignition - No Smoking.
S24 Avoid contact with skin.
S37 Wear suitable gloves.
S45 In case of accident or if you feel unwell, seek medical advice immediately.
S36/37 Wear suitable protective clothing and gloves.

16. OTHER INFORMATION

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

Not applicable

Contact**Australian Poisons Information Centre**

24 Hour Service: - 13 11 26
Police or Fire Brigade: - 000 (exchange): - 1100

New Zealand National Poisons Centre

0800 764 766

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.

Disclaimer Statement

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