HALLIBURTON

MATERIAL SAFETY DATA SHEET

Product Trade Name: G-SPERSE

Revision Date: 15-Aug-2014 Revision Number: 12

SECTION 1. Product and Company Identification

Product Identifier

Product Trade Name: G-SPERSE Synonyms: None Chemical Family: Sulfate Internal ID Code HM003236

Product Use

Application: Dispersant

Manufacturer's Name and Contact Details

Name and Address Halliburton Energy Services

645 - 7th Ave SW Suite 2200

Calgary, AB T2P 4G8 Canada

Emergency Telephone Number (281) 575-5000

Prepared By Chemical Compliance

Telephone: 1-580-251-4335

e-mail: fdunexchem@halliburton.com

SECTION 2. Hazard(s) Identification

WHIMIS Classification

WHMIS Hazard Class D2B Toxic Materials

WHMIS Symbol(s)



Summary of hazards of the product

Hazard Overview May cause eye, skin, and respiratory irritation.

SECTION 3: Composition/information on Ingredients

Substances	CAS Number	PERCENT (w/w)	HMIRA Registry	Decision Granted
			Number	Date
Sulfonated sodium salts	Proprietary	30 - 60%	8939	July 16, 2014
Sodium sulfate	7757-82-6	1 - 5%	Not applicable	Not applicable
Sodium chloride	7647-14-5	1 - 5%	Not applicable	Not applicable

SECTION 4. First aid measures

Description of first aid measures

Inhalation If inhaled, remove to fresh air. If not breathing give artificial respiration (AR),

preferably mouth-to-mouth. If breathing is difficult, oxygen should be given by trained personnel. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation (CPR) immediately. Get medical attention.

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. 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.

Ingestion Do not induce vomiting. Never give anything by mouth to an unconscious person.

If breathing has stopped, trained personnel should begin rescue breathing / artificial respiration (AR) immediately. If the heart has stopped, trained personnel

should begin CPR immediately. Obtain medical attention immediately.

Most important symptoms and effects, both acute and delayed

May cause eye irritation

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically

SECTION 5. Fire Fighting Measures

Extinguishing media

Suitable Extinguishing Media

Use water spray to cool fire exposed surfaces.

Extinguishing media which must not be used for safety reasons

None known.

Skin

Special hazards arising from the substance or mixture

Special Exposure Hazards

Product is not expected to burn unless all the water is boiled away. Decomposition in fire may produce toxic gases.

Advice for firefighters

Special Protective Equipment for Fire-Fighters

Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

Hazardous combustion products

Oxides of sulfur. Carbon monoxide and carbon dioxide.

SECTION 6. Accidental release measures

Personal precautions and emergency producedures

Protective Equipment

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.

SECTION 7. Handling and Storage

Precautions for safe handling

Avoid contact with eyes, skin, or clothing. Avoid breathing vapors.

Conditions for safe storage and Incompatible materials for storage

Store away from acids. Keep container closed when not in use. Product has a shelf life of 24 months.

SECTION 8: Exposure Controls/Personal Protection

Occupational Exposure Limits

Exposure Limits

Substances	CAS Number	ACGIH TLV-TWA	OSHA PEL-TWA
Sulfonated sodium salts	Proprietary	Not available	Not available
Sodium sulfate	7757-82-6	Not available	Not available
Sodium chloride	7647-14-5	Not available	Not available

Appropriate engineering controls

Engineering ControlsUse in a well ventilated area. Local exhaust ventilation should be used in areas

without good cross ventilation.

Personal Protective Equipment (PPE)

Respiratory Protection Not normally needed. But if significant exposures are possible then the following

respirator is recommended:

Organic vapor/acid gas respirator with a dust/mist filter.

Hand Protection Impervious rubber gloves. **Skin Protection** Normal work coveralls.

Eye Protection Chemical goggles; also wear a face shield if splashing hazard exists. **Other Precautions** Eyewash fountains and safety showers must be easily accessible.

SECTION 9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical State: Liquid Color: Yellow to brown

Odor: Disinfectant Odor Threshold: No information available

Property Values

Remarks/ - Method

pH:

No information available.

pH Concentration of Solution:

Freezing Point/Range

Melting Point/Range

Mo information available.

No information available.

Flash Point Method:

Autoignition Temperature (C):

Flammability Limits in Air - Lower (%):

Flammability Limits in Air - Upper (%):

Evaporation Rate (Butyl Acetate=1):

No information available.

No information available.

No information available.

Vapor Pressure @ 20 C (mmHg):

Vapor Density (Air=1): No information available.

Specific Gravity @ 20 C (Water=1): 1.14
Solubility in Water (g/100ml): Miscible

Solubility in other solvents

Partition Coefficient/n-Octanol/Water:

Decomposition Temperature (C):

Viscosity

No information available.

No information available.

No information available.

No information available in information available.

No information available in information available.

Explosive PropertiesNo information availableOxidizing PropertiesNo information available

Other Information

Molecular Weight (g/mole):No information available.VOC Content (%)No information available.

SECTION 10. Stability and Reactivity

Conditions of Reactivity

Conditions to Avoid Keep away from heat, sparks and flame.

Hazardous Polymerization: Will Not Occur

Chemical Stability

Stable

Sensitivity to Static Discharge

Not available

Sensitivity to Mechanical Impact

Not available

Incompatible materials

Strong acids.

Hazardous Decomposition Products

Oxides of sulfur. Carbon monoxide and carbon dioxide.

SECTION 11. Toxicological Information

Routes of entry

Eye or skin contact, inhalation.

Information on Toxicological Effects

Acute effects from exposure

Inhalation May cause respiratory irritation.

Eye Contact Causes severe eye irritation which may damage tissue.

May cause skin irritation. **Skin Contact**

Ingestion None known

Chronic effects from exposure

Chronic Effects/Carcinogenicity No data available to indicate product or components present at greater than 1% are chronic

health hazards.

Irritancy of product

Irritation Severe eye irritant

Sensitization of product

Sensitization Not confirmed to cause skin or respiratory sensitization.

Mutagenicity

Mutagenic Effects Not regarded as mutagenic.

Carcinogenicity

Carcinogenic Effects No ingredient of this product present at levels greater than or equal to 0.1% is identified as

probable, possible or confirmed human carcinogen by IARC, NTP, or OSHA.

Reproductive toxicity

Reproductive Toxicity This product does not contain any known or suspected reproductive hazards

Teratogenicity/embryotoxicity

Teratogenic Not a confirmed teratogen or embryotoxin.

Toxicologically synergistic material Sodium chloride: In animal studies, sodium chloride has increased cancer (stomach,

tracheal) initiated by exposure to known carcinogens (carcinogens not reported).

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Acute Toxicity

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sulfonated sodium salts	Proprietary	No data available	No data available	No data available
Sodium sulfate	7757-82-6	10000 mg/kg (Rat)	No data available	No data available
Sodium chloride	7647-14-5	3 g/kg(Rat)	10 g/kg(Rabbit)	42 g/m³ (Rat) 1 h

SECTION 12. Ecological Information

Toxicity

Ecotoxicity Effects

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Sulfonated sodium salts	Proprietary	No information available	No information available	No information available	No information available
Sodium sulfate	7757-82-6	No information available	LC50: 24000 mg/L (Gambusia affinis)	No information available	No information available
Sodium chloride	7647-14-5	EC50(120h): 2430 mg/L (cell number) (Nitzschia sp.)	TLM96: > 1000 mg/l (Oncorhynchus mykiss) LC50(96h): 5840 mg/L (Lepomis macrochirus) NOEC(33d): 252 mg/L (Pimephales promelas)	NOEC 292-584 mg/L (Escherichia coli)	TLM96: > 1,000,000 ppm (Mysidopsis bahia) LC50(48h): 874 - 4136mg/L (Daphnia magna) NOEC(21d): 314 mg/L (Daphnia pulex)

Persistence and Degradability

No information available

Bioaccumlation potential

No information available

Mobility in soil

No information available

Results of PBT and vPvB assessment

No information available.

Other adverse effects

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

SECTION 13. Disposal Considerations

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

Contaminated Packaging Follow all applicable national or local regulations.

SECTION 14. Transport Information

Canadian TDG ul0

UN Number: Not restricted.
UN Proper Shipping Name: Not restricted
Transport Hazard Class(es): Not applicable
Packing Group: Not applicable

IATA/ICAO

UN Number: Not restricted.
UN Proper Shipping Name: Not restricted
Transport Hazard Class(es): Not applicable
Packing Group: Not applicable

IMDG/IMO

UN Number: Not restricted.
UN Proper Shipping Name: Not restricted
Transport Hazard Class(es): Not applicable
Packing Group: Not applicable

Special Precautions for User: None

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

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

SECTION 15: Regulatory Information

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Canadian Regulations

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

WHMIS Hazard Class D2B Toxic Materials

WHMIS Symbol(s)



US Regulations
US TSCA Inventory

All components listed on inventory or are exempt.

SECTION 16. Other Information

Preparation Information

Prepared By Chemical Compliance

Telephone: 1-580-251-4335

e-mail: fdunexchem@halliburton.com

Revision Date: 15-Aug-2014

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.

Key or legend to abbreviations and acronyms

WHMIS: Workplace Hazardous Materials Information System

Key literature references and sources for data

www.ChemADVISOR.com/

Disclaimer Statement

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END OF MSDS