

## MATERIAL SAFETY DATA SHEET

**Product Trade Name:** SGA-HT M Gelling Agent

**Revision Date:** 05-Jan-2016

**Revision Number:** 14

### SECTION 1. Product and Company Identification

**Product Identifier**

**Product Trade Name:** SGA-HT M Gelling Agent  
**Synonyms:** None  
**Chemical Family:** Cationic Polymer  
**Internal ID Code:** HM006273

**Product Use**

**Application:** Flocculent

**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** +1-760-476-3962

**Prepared By**

Chemical Stewardship  
 Telephone: 1-281-871-6107  
 e-mail: fdunexchem@halliburton.com

### SECTION 2. Hazard(s) Identification

**WHMIS 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. May cause lung damage if swallowed. May cause headache, dizziness, and other central nervous system effects.

### SECTION 3: Composition/information on Ingredients

Substances	CAS Number	PERCENT (w/w)	HMIRA Registry Number	Decision Granted Date
Polyacrylate copolymer	Proprietary	30 - 60%	8952	November 19, 2014
Hydrotreated heavy naphthenic distillate	64742-52-5	30 - 60%	Not applicable	Not applicable
Alcohols, C11-14-iso-, C-13-rich, ethoxylated propoxylated	78330-23-1	1 - 5%	Not applicable	Not applicable
Adipic acid	124-04-9	1 - 5%	Not applicable	Not applicable
Distillates, petroleum, solvent-refined heavy paraffinic	64741-88-4	1 - 5%	Not applicable	Not applicable

Stoddard solvent	8052-41-3	1 - 5%	Not applicable	Not applicable
Acrylic Polymer	Proprietary	1 - 5%	8952	November 19, 2014

## 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 immediately.

#### **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.

#### **Skin**

In case of contact, immediately flush skin with plenty of soap and water for at least 15-20 minutes. Get medical attention. Remove contaminated clothing and launder before reuse.

#### **Ingestion**

Get medical attention! If vomiting occurs, keep head lower than hips to prevent aspiration. Rinse mouth. Never give anything by mouth to an unconscious person. 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.

### Most important symptoms and effects, both acute and delayed

May cause mild eye irritation. Carcinogen. Potential reproductive hazard. May cause birth defects. Prolonged or repeated exposure may cause damage to organs.

### 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**

Carbon dioxide, dry chemical, foam.

#### **Extinguishing media which must not be used for safety reasons**

None known.

### Special hazards arising from the substance or mixture

#### **Special Exposure Hazards**

Decomposition in fire may produce harmful gases. Use water spray to cool fire exposed surfaces. Spills produce extremely slippery surfaces.

### 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 nitrogen. Carbon monoxide and carbon dioxide. Hydrogen chloride. Hydrogen cyanide.

## SECTION 6. Accidental release measures

### Personal precautions and emergency procedures

#### **Protective Equipment**

Use appropriate protective equipment. Spills of this product are very slippery.

#### **Environmental Precautionary Measures**

Prevent from entering sewers, waterways, or low areas.

**Procedure for Cleaning / Absorption**

Contain spill with sand or other inert materials. Scoop up and remove. Isolate spill and stop leak where safe.

## SECTION 7. Handling and Storage

**Precautions for safe handling**

Avoid contact with eyes, skin, or clothing. Avoid breathing vapors. Avoid breathing mist. Material is slippery underfoot. Launder contaminated clothing before reuse. Do NOT consume food, drink, or tobacco in contaminated areas.

**Conditions for safe storage and incompatible materials for storage**

Store away from oxidizers. Keep container closed when not in use. Store in a cool, dry location. Store in a well ventilated area. Keep from excessive heat. Keep from freezing.

## SECTION 8: Exposure Controls/Personal Protection

**Occupational Exposure Limits****Exposure Limits**

Substances	CAS Number	ACGIH TLV-TWA	OSHA PEL-TWA
Polyacrylate copolymer	Proprietary	Not available	Not available
Hydrotreated heavy naphthenic distillate	64742-52-5	Not available	Not available
Alcohols, C11-14-iso-, C-13-rich, ethoxylated propoxylated	78330-23-1	Not available	Not available
Adipic acid	124-04-9	TWA: 5 mg/m <sup>3</sup>	Not available
Distillates, petroleum, solvent-refined heavy paraffinic	64741-88-4	Not available	Not available
Stoddard solvent	8052-41-3	TWA: 100 ppm	500 ppm
Acrylic Polymer	Proprietary	Not available	Not available

**Appropriate engineering controls****Engineering Controls**

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

**Personal Protective Equipment (PPE)****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.

Not normally needed. But if significant exposures are possible then the following respirator is recommended:

Organic vapor cartridge with particulate prefilter.

Impervious rubber gloves. Polyvinylchloride gloves.

Rubber apron.

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

None known.

**Hand Protection****Skin Protection****Eye Protection****Other Precautions**

## SECTION 9. Physical and Chemical Properties

**Information on basic physical and chemical properties**

**Physical State:** Liquid

**Odor:** Mild amine

**Color:** Off white

**Odor Threshold:** No information available

Property

Remarks/ - Method

Values

pH:	7.4
pH Concentration of Solution:	10%
Freezing Point/Range	< 0 °C
Melting Point/Range	No information available
Boiling Point/Range (C):	> 100 °C / > 212 °F
Flash Point/Range (°C):	> 93 °C
Flash Point Method:	COC
Autoignition Temperature (°C):	No information available.
Flammability Limits in Air - Lower (%):	No information available.
Flammability Limits in Air - Upper (%):	No information available.
Evaporation Rate (Butyl Acetate=1):	No information available.
Vapor Pressure @ 20 C (mmHg):	0.5
Vapor Density (Air=1):	No information available.
Specific Gravity @ 20 C (Water=1):	1.06
Solubility in Water (g/100ml):	Disperses
Solubility in other solvents	No information available.
Partition Coefficient/n-Octanol/Water:	No information available.
Decomposition Temperature (C):	No information available.
Viscosity	No information available
Explosive Properties	No information available
Oxidizing Properties	No information available

**Other Information**

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

## SECTION 10. Stability and Reactivity

**Conditions of Reactivity**

Remarks	Not expected to be reactive.
Conditions to Avoid	Do not expose to heat or store at temperatures above 120 F (49 C). Freezing conditions.
Hazardous Polymerization:	Will Not Occur

**Chemical Stability**

Stable

**Sensitivity to Static Discharge**

Not available

**Sensitivity to Mechanical Impact**

Not available

**Incompatible materials**

Strong oxidizers.

**Hazardous Decomposition Products**

Oxides of nitrogen. Carbon monoxide and carbon dioxide. Hydrogen chloride. Hydrogen cyanide.

## SECTION 11. Toxicological Information

**Routes of entry**

Eye or skin contact, inhalation.

**Information on Toxicological Effects****Acute effects from exposure****Inhalation**

May cause mild respiratory irritation. Excessive inhalation causes headache, dizziness, nausea and incoordination.

**Eye Contact**

Causes mild eye irritation.

**Skin Contact**

May cause mild skin irritation. Can dry skin. May cause skin defatting with prolonged exposure.

**Ingestion**

Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.

**Chronic effects from exposure**  
**Chronic Effects/Carcinogenicity**

This product is a potential carcinogen. Prolonged or repeated skin exposure may cause dermatitis. Prolonged or repeated exposure may cause blood forming system, nervous, urinary tract and reproductive system damage. Prolonged or repeated exposure may cause embryo and fetus toxicity.

**Irritancy of product**  
**Irritation**

Irritating to eyes

**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** Not available

**Acute Toxicity**

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Polyacrylate copolymer	Proprietary	No data available	No data available	No data available
Hydrotreated heavy naphthenic distillate	64742-52-5	> 5000 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	> 5.53 mg/L (Rat) 4h
Alcohols, C11-14-iso-, C-13-rich, ethoxylated propoxylated	78330-23-1	> 600 mg/kg (Rat) (similar substance)	2000 - 5000 mg/kg (Rabbit) (similar substance)	No data available
Adipic acid	124-04-9	5560 mg/kg (Rat)	7940 mg/kg (Rabbit)	> 7.7 mg/L (Rat)
Distillates, petroleum, solvent-refined heavy paraffinic	64741-88-4	5000 mg/kg (Rat)	2000 mg/kg (Rabbit) par > 5000 mg/kg (Rabbit) (similar substance)	2.18 mg/L (Rat) 4h > 5.53 mg/L (Rat) 4h (similar substance)
Stoddard solvent	8052-41-3	> 5000 mg/kg (Rat)	> 3000 mg/kg (Rabbit)	> 12.19 mg/L (Rat)
Acrylic Polymer	Proprietary	No data available	No data available	No data available

## SECTION 12. Ecological Information

**Toxicity**  
**Ecotoxicity Effects**

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Polyacrylate copolymer	Proprietary	EC50 (72h) 1.7 mg/L (Skelettonema costatum) (similar substance) ErC50 (72h) 4.3 ppm (Skelettonema costatum) (similar substance)	LC50 (96h) 55 mg/L (Scophthalmus maximus) (similar substance) LC50 (96h) 10 - 100 mg/L (Danio rerio)	No information available	EC50 (48h) > 50 mg/L (Daphnia magna)
Hydrotreated heavy naphthenic distillate	64742-52-5	No information available	LC50 > 5000 mg/L (Oncorhynchus mykiss)	No information available	EL50 > 1000 mg/L (Daphnia magna)

Alcohols, C11-14-iso-, C-13-rich, ethoxylated propoxylated	78330-23-1	No information available	LC50 (96h) 4.6 mg/L (Pimephales promelas)	No information available	LC50 (48h) 12.5 mg/L (Ceriodaphnia dubia)
Adipic acid	124-04-9	EC50 (72h) 31.3 (Desmodesmus subspicatus) EC50 (72h) 39.8 (Desmodesmus subspicatus) EC50 (72h) 59 (Pseudokirchnerella subcapitata)	LC50 (96h) 230 mg/L (Leuciscus idus) NOEC (14d) 50 mg/L (Oryzias latipes)	EC50 (3h) 4747 mg/L (Activated sludge)	LC50 (48h) 46 mg/L (Daphnia magna) NOEC (21d) 6.3 mg/L (Daphnia magna)
Distillates, petroleum, solvent-refined heavy paraffinic	64741-88-4	NOEL (72h) > 99 mg/L (Pseudokirchnerella subcapitata) (similar substance)	LL50 (96h) > 99 mg/L (Pimephales promelas) (similar substance)	No information available	EL50 (48h) > 9999 mg/L (Daphnia magna) (similar substance) NOEL (21d) > 99 mg/L (Daphnia magna) (similar substance)
Stoddard solvent	8052-41-3	EC50 (72h) 1.2 mg/L (Pseudokirchnerella subcapitata) NOEC (96h) 0.16 mg/L (Pseudokirchnerella subcapitata)	LC50 (96h) 4.2 - 20.8 mg/L (Pimephales promelas)	No information available	LC50 (96h) 0.42 - 2.3 mg/L (Daphnia magna) LC50 (96h) 0.53 mg/L (Crangon crangon) EC50 (21d) 0.43 mg/L (Daphnia magna)
Acrylic Polymer	Proprietary	No information available	No information available	No information available	No information available

**Persistence and Degradability**

No information available

**Bioaccumulation potential**

Substances	CAS Number	Log Pow
Polyacrylate copolymer	Proprietary	No information available
Hydrotreated heavy naphthenic distillate	64742-52-5	No information available
Alcohols, C11-14-iso-, C-13-rich, ethoxylated propoxylated	78330-23-1	Log Kow = 6.3
Adipic acid	124-04-9	Log Kow = 0.093
Distillates, petroleum, solvent-refined heavy paraffinic	64741-88-4	No information available
Stoddard solvent	8052-41-3	No information available
Acrylic Polymer	Proprietary	No information available

**Mobility in soil****Results of PBT and vPvB assessment****Other adverse effects****Endocrine Disruptor Information**

This product does not contain any known or suspected endocrine disruptors

**SECTION 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.

**SECTION 14. Transport Information****Canadian TDG****UN Number:**

UN3082

**UN Proper Shipping Name:**

Environmentally Hazardous Substance, Liquid, N.O.S. (Contains Ethoxylated Alcohol)

Transport Hazard Class(es): 9  
Packing Group: III  
Environmental Hazards: Not applicable

**IATA/ICAO**

UN Number: UN3082  
UN Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Contains Ethoxylated Alcohol)  
Transport Hazard Class(es): 9  
Packing Group: III

**IMDG/IMO**

UN Number: UN3082  
UN Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Contains Ethoxylated Alcohol)  
Transport Hazard Class(es): 9  
Packing Group: III  
EMS: EmS F-A, S-F  
Environmental Hazards: Marine Pollutant

**Special Precautions for User:** None

## 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 Stewardship  
Telephone: 1-281-871-6107  
e-mail: fdunexchem@halliburton.com

Revision Date: 05-Jan-2016

SDS sections updated: 2

**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 Stewardship 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/](http://www.ChemADVISOR.com/)

**Disclaimer Statement**

This information is furnished without warranty, expressed or implied, as to accuracy or completeness. The information is obtained from various sources including the manufacturer and other third party sources. The information may not be valid under all conditions nor if this material is used in combination with other materials or in any process. Final determination of suitability of any material is the sole responsibility of the user.

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