



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Material Name** HVG-4  
**Revision Date** 12/21/2011  
**Version #** 4  
**Product Use** Water Gelling Agent  
**Manufacturer / Supplier** FRAC TECH SERVICES LLC  
2500 HWY 62 West  
Chickasha, OK 73018  
US  
General information: 1-405-222-2300  
**Emergency** 24 Hour Emergency: INFOTRAC: 1-800-535-5053

## 2. Hazards Identification

**Physical State** Liquid  
**Appearance** Opaque Slurry  
**Emergency Overview** Not available.  
**OSHA regulatory status** Not available.  
**Routes of exposure**  
**Eyes** Irritant  
**Skin** Possible Irritant  
**Inhalation** Based on tests, certain individuals may develop a respiratory allergenic response to guar gum dust. Person with respiratory history may aggravate conditions by exposure to guar gum.  
**Ingestion** Vomiting may result. Pulmonary aspiration hazard if vomiting occurs.  
**Potential environmental effects** Not available.

## 3. Composition / Information on Ingredients

Components	CAS #	Percent
Carboxymethyl hydroxypropyl guar	68130-15-4	45- 55
Petroleum Distillate	64742-47-8	45- 55
Clay	Proprietary	<5

**Composition comments** All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

## 4. First Aid Measures

**First aid procedures**  
**Eye Contact** Thoroughly wash for 15 minutes. Seek medical attention if irritation persists.  
**Skin Contact** Wash affected area with plenty of water and soap. Seek medical attention if irritation persists.  
**Inhalation** Ingestion is not considered a potential route of exposure. If swallowed, seek medical attention.  
**Ingestion** If breathing is difficult, remove to fresh air. Seek medical attention if difficulty persists.  
**Notes to physician** All treatments should be based on observed signs and symptoms of distress in the patient. Treatment protocols are available from most major hospitals and early collaboration with appropriate hospitals is recommended.

## 5. Fire Fighting Measures

**Flammable Properties** NFPA IIIA

<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Water spray, dry chemical or aqueous fire fighting foam.
<b>Unsuitable extinguishing media</b>	Not available.
<b>Specific Hazards arising from the Chemical</b>	None expected.
<b>Firefighting equipment / instructions</b>	Self contained breathing apparatus (SCBA) and structural protective clothing will provide limited protection.
<b>Specific Methods</b>	As in any fire, firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Cool exposed equipment with water spray until well after fire is out.
<b>Hazardous combustion products</b>	Not available.

## 6. Accidental Release Measures

<b>Personal precautions</b>	Surfaces dusted with this material can become very slippery when wet. Do not smoke. Prevent breathing of vapors. Ventilate the area.
<b>Methods for cleaning up</b>	Absorb with inert material and place in chemical waste container. Dike large spills for later disposal. Dispose of in accord with all appropriate regulations.

## 7. Handling and Storage

<b>Handling</b>	Electrostatic accumulation hazard: when transferring this product there is a potential for accumulation of static electricity. Bonding and grounding of equipment necessary.
<b>Storage</b>	Ship in DOT approved tank cars and tank trucks. Store in poly totes and sample bottles if needed with proper labels. Carbon steel is also suitable.

## 8. Exposure Controls / Personal Protection

### Occupational exposure limits

#### US. ACGIH Threshold Limit Values

Components	TWA		STEL	
	ppm	mg/m3	ppm	mg/m3
Carboxymethyl hydroxypropyl guar	Not available.	Not available.	Not available.	Not available.
Petroleum Distillate	Not available.	Not available.	Not available.	Not available.
Clay	Not available.	Not available.	Not available.	Not available.

#### US. OSHA Table Z-1 Limits for Air Contaminates (29 CFR 1910.1000)

Components	PEL	
	ppm	mg/m3
Carboxymethyl hydroxypropyl guar	Not available.	Not available.
Petroleum Distillate	Not available.	Not available.
Clay	Not available.	Not available.

#### Canada. Alberta OELs (Occupational Health Safety Code, Schedule 1, Table 2)

Components	TWA		STEL	
	ppm	mg/m3	ppm	mg/m3
Carboxymethyl hydroxypropyl guar	Not available.	Not available.	Not available.	Not available.
Petroleum Distillate	Not available.	Not available.	Not available.	Not available.
Clay	Not available.	Not available.	Not available.	Not available.

**Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)**

Components	TWA		STEL	
	ppm	mg/m3	ppm	mg/m3
Carboxymethyl hydroxypropyl guar	Not available.	Not available.	Not available.	Not available.
Petroleum Distillate	Not available.	Not available.	Not available.	Not available.
Clay	Not available.	Not available.	Not available.	Not available.

**Canada. Ontario OELs. (Ministry of Labor - Control of Exposure to Biological or Chemical Agents) Components**

Components	TWA		STEL	
	ppm	mg/m3	ppm	mg/m3
Carboxymethyl hydroxypropyl guar	Not available.	Not available.	Not available.	Not available.
Petroleum Distillate	Not available.	Not available.	Not available.	Not available.
Clay	Not available.	Not available.	Not available.	Not available.

**Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) Components**

Components	TWA		STEL	
	ppm	mg/m3	ppm	mg/m3
Carboxymethyl hydroxypropyl guar	Not available.	Not available.	Not available.	Not available.
Petroleum Distillate	Not available.	Not available.	Not available.	Not available.
Clay	Not available.	Not available.	Not available.	Not available.

**Mexico. Occupational Exposure Limit Values**

Components	TWA		STEL	
	ppm	mg/m3	ppm	mg/m3
Carboxymethyl hydroxypropyl guar	Not available.	Not available.	Not available.	Not available.
Petroleum Distillate	Not available.	Not available.	Not available.	Not available.
Clay	Not available.	Not available.	Not available.	Not available.

<b>Engineering controls</b>	Air contaminant levels should be kept below the PEL or TLV for this product. Mechanical ventilation may be necessary if the product is used in enclosed areas and/or at elevated temperatures.
<b>Personal protective equipment</b>	
<b>Eye / face protection</b>	Use face shield and/or chemical splash goggles.
<b>Skin protection</b>	Full protective clothing, boots, and chemical gloves should be worn.
<b>Respiratory protection</b>	NIOSH approved organic vapor air purifying respirator, self-contained breathing apparatus or air supplied respirators depending on concentration.
<b>General hygiene consideration</b>	Not available.

## 9. Physical and Chemical Properties

<b>Appearance:</b>	Opaque slurry
<b>Color</b>	Tan to light yellow
<b>Odor</b>	Non-aromatic hydrocarbon
<b>Odor threshold</b>	Not available.
<b>Physical State</b>	Liquid
<b>Form</b>	Liquid
<b>pH</b>	Not applicable.
<b>Melting point</b>	Not available.
<b>Freezing point</b>	Not available.
<b>Boiling point</b>	369 – 498°F (187 – 259°C)
<b>Flash point</b>	190°F (87.77°C) (PM) Closed Cu
<b>Evaporation rate</b>	Not available.
<b>Flammability limits in air, upper, % by volume</b>	4.7
<b>Flammability limits in air, lower, % by volume</b>	0.6
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Specific Gravity</b>	1.042
<b>Solubility (water)</b>	Completely dispersible.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	448°F (231°C)
<b>Decomposition temperature</b>	Not available.
<b>Bulk Density</b>	8.68 lb/gal
<b>VOC</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Percent volatile</b>	Not available.

## 10. Chemical Stability Reactivity Information

<b>Chemical Stability</b>	Stable
<b>Conditions to avoid</b>	High temperatures
<b>Incompatible material</b>	May react with strong oxidizers.
<b>Hazardous decomposition products</b>	None expected.
<b>Possibility of hazardous reaction</b>	None.

## 11. Toxicology Information

### Toxicological Data

<b>Components</b>	<b>Test Results</b>
Carboxymethyl hydroxypropyl guar	Not available.
Petroleum Distillate	Eyes: primary eye irritation index (rabbit): max avg. score 5.0/110 Skin: primary skin irritation index (rabbit) 4.2/8.0. Acute dermal ld50 2-4g/kg Inhalation: no toxicity observed in rats exposed at 24.1 mg/l. Ingestion: acute oral LD50 rat: >39.9g/kg
Clay	Not available.
<b>Sensitization</b>	Not available.
<b>Carcinogenicity</b>	
Carboxymethyl hydroxypropyl guar	Not available.
Petroleum Distillate	Not available.
Clay	Contains <1.0% Crystalline silica which IARC has been classified as carcinogenic to humans. The slurry contains < 0.013% crystalline silica.
<b>Epidemiology</b>	Not available.
<b>Mutagenicity</b>	Not available.
<b>Reproductive effects</b>	Not available.
<b>Teratogenicity</b>	Not available.
<b>Further Information</b>	Not available.

## 12. Ecological Information

### Ecotoxicological data

<b>Components</b>	<b>Test Results</b>
Carboxymethyl hydroxypropyl guar	Not available.
Petroleum Distillate	Not available.
Clay	Not available.

<b>Ecotoxicity</b>	Not available.
<b>Persistence and degradability</b>	Not available.
<b>Bioaccumulation / Accumulation</b>	Not available.
<b>Mobility in environmental media</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.

### 13. Disposal Considerations

<b>Waste codes</b>	Not available.
<b>Disposal instructions</b>	If discarded in purchased form, this product is not a RCRA hazardous waste. Liquids with flash point <140°F have RCRA characteristics of ignitability and are classed as hazardous for disposal purposes. The product should be evaluated at the time of disposal to identify any transformation or contamination that may have occurred during use.
<b>Contaminated packaging</b>	Do not pressurize or subject containers to any source of heat or spark. Empty drums should be washed and drained and properly disposed of.

### 14. Transport Information

<b>DOT</b>	
<b>UN number</b>	None
<b>Proper shipping name</b>	Petroleum Distillates
<b>Hazard class</b>	None
<b>Packing Group</b>	III
<b>Labels required</b>	
<b>DOT reportable quantity</b>	Not available.
<b>Additional information</b>	This product is not regulated as a hazardous material by the US DOT in bulk quantities. It is not regulated for non bulk quantities. Pursuant to 49 CFR 173.120(b)(3) this product is not regulated as a combustible or flammable liquid. ASTM method D 4206 confirms that the product does not support combustion.
<b>Special provisions</b>	
<b>Packaging exceptions</b>	
<b>Packaging non bulk</b>	
<b>Packaging bulk</b>	
<b>ERG number</b>	
<b>IATA</b>	
<b>UN number</b>	
<b>Proper shipping name</b>	Not regulated.
<b>Hazard class</b>	
<b>Packing group</b>	
<b>Additional information</b>	
<b>ERG code</b>	
<b>IMDG</b>	
<b>UN number</b>	
<b>Proper shipping name</b>	Not regulated.
<b>Hazard class</b>	
<b>Packing group</b>	
<b>EmS No</b>	
<b>IMDG Additional information:</b>	

## 15. Regulatory Information

### US federal regulation

**CERCLA (Superfund) Reportable Quantity:** Not available.

### Superfund amendments and Reauthorization Act of 1986 (SARA)

<b>Hazard Categories</b>	Immediate Hazard:	No
	Delayed Hazard:	No
	Fire Hazard:	Yes
	Pressure Hazard:	No
	Reactivity Hazard:	No

Section 302 extremely hazardous substance: Not subject to reporting.

Section 311 hazardous chemical: N/A

### Inventory Status

Country	Inventory Name	On Inventory *
Australia	AICS	No
Canada	DSL	No
Canada	NDSL	No
China	IECSC	No
Europe	EINECS	No
Europe	ELINCS	No
Japan	ENCS	No
Korea	ECL	No
New Zealand	NZI	No
United States / Puerto Rico	TSCA	Yes
Phillipines	PICCS	No

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).

**WHMIS Information** Not available.

**State Regulation** Not available.

## 16. Other Information

**Further Information** HMIS® is a registered trade and service mark of the NPCA.

**HMIS® ratings** Health: 1  
Flammability: 2  
Physical Hazard: 0  
A HMIS® rating including an \* indicates a chronic hazard.

**NFPA ratings** Health: 1  
Flammability: 2  
Instability: 0

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