

# Material Safety Data Sheet

## H-Break 100

Date Prepared: 9/20/06

Supersedes Date: 8/20/03

### 1. PRODUCT AND COMPANY DESCRIPTION

GEO Drilling Fluids Inc.

1431 Union Ave.

Bakersfield, CA 93305

**Emergency Phone Numbers:**

FOR EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT  
CONTACT: CHEMTREC (800-424-9300 within the United States or 703-527-3887 for  
international collect calls) or Rhodia CAERS (Communication and Emergency Response System)  
at 800-916-3232.

**For Product Information:**

(800) 438-7436 or (800) 973-7873

**Chemical Name or Synonym:**

HEMICELLULASE ENZYME SOLUTION

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Reg Number	OSHA Hazard	Percentage
SUCROSE	57-50-1	Y	46
ETHYLENE GLYCOL	107-21-1	Y	< 14

### 3. HAZARDS IDENTIFICATION

**A. EMERGENCY OVERVIEW:**

**Physical Appearance and Odor:**

amber thin liquid, odorless.

**Warning Statements:**

HARMFUL IF INHALED OR SWALLOWED. CAN ADVERSELY AFFECT THE KIDNEYS, LIVER, NERVOUS SYSTEM, REPRODUCTIVE HAZARD.

**B. POTENTIAL HEALTH EFFECTS:**

**Acute Eye:** Slightly irritating.

**Acute Skin:**

Essentially non-irritating. May cause slight transient irritation.

**Acute Inhalation:**

Mists may cause headache, dizziness, nausea, upper respiratory tract irritation.

**Acute Ingestion:**

May be harmful if swallowed.

**Chronic Effects:**

Based on similar materials, prolonged contact may cause kidney damage, permanent heart damage, and/or chronic brain damage.

## 4. FIRST AID MEASURES

**FIRST AID MEASURES FOR ACCIDENTAL:**

**Eye Exposure:**

Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek medical attention if irritation develops or persists or if visual changes occur.

**Skin Exposure:**

In case of contact, immediately wash with plenty of soap and water for at least 15 minutes. Seek medical attention. Remove contaminated clothing and shoes while washing. Clean contaminated clothing and shoes before re-use or discard if they cannot be thoroughly cleaned.

**Inhalation:**

Remove victim from immediate source of exposure and assure that the victim is breathing. If breathing is difficult, administer oxygen, if available. If victim is not breathing, administer CPR (cardio-pulmonary resuscitation). Seek medical attention.

**Ingestion:**

If victim is conscious and alert, give 1-2 glasses of water to drink. Do not give anything by mouth to an unconscious person. Seek medical attention. Do not leave victim unattended.

**MEDICAL CONDITIONS POSSIBLY AGGRAVATED BY EXPOSURE:**

No specific information found.

**NOTES TO PHYSICIAN:**

All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

## 5. FIRE FIGHTING MEASURES

### FIRE HAZARD DATA:

**Flash Point:**

> 93 C (200 F). Flammability Class: WILL BURN.

**Method Used:**

Setaflash Closed Cup

**Flammability Limits (vol/vol%):** Lower: Upper:  
3.2 No Data

**Extinguishing Media:**

Recommended (small fires): carbon dioxide, dry chemical, Recommended (large fire): aqueous foam, water.

**Special Fire Fighting Procedures:**

Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.

**Unusual Fire and Explosion Hazards:**

Closed containers may explode (due to the build-up of pressure) when exposed to extreme heat.

**Hazardous Decomposition Materials (Under Fire Conditions):**

oxides of carbon

## 6. ACCIDENTAL RELEASE MEASURES

**Evacuation Procedures and Safety:**

Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.

**Containment of Spill:**

Dike spill using absorbent or impervious materials such as earth, sand or clay.

**Cleanup and Disposal of Spill:**

Absorb with an inert absorbent. Clean up residual material by washing area with water.

**Environmental and Regulatory Reporting:**

Prevent material from entering public sewer system or any waterways. Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

## 7. HANDLING AND STORAGE

**Minimum/Maximum Storage Temperatures:**

Not Available

**Handling:**

Do not breathe vapors. Do not get on skin or in eyes.

**Storage:**

Store in closed containers.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Introductory Remarks:**

These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. While developing safe handling procedures, do not overlook the need to clean equipment and piping systems for maintenance and repairs. Waste resulting from these procedures should be handled in accordance with Section 13: Disposal Considerations.

Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

**Exposure Guidelines:**

Exposure limits represent regulated or recommended worker breathing zone concentrations measured by validated sampling and analytical methods, meeting the regulatory requirements. The following limits apply to this material, where, if indicated, S=skin and C=ceiling limit:

### SUCROSE

	Notes	TWA	STEL
ACGIH		10 mg/cu m	
OSHA		5 mg/cu m	
OSHA		15 mg/cu m	

### ETHYLENE GLYCOL

	Notes	TWA	STEL
ACGIH		100 mg/cu m	100 mg/cu m
OSHA	C	125 mg/cu m	
OSHA	C	50 ppm	

**Engineering Controls:**

Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures: local exhaust ventilation at the point of generation.

**Respiratory Protection:**

When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industrial recommendations.

**Eye/Face Protection:**

Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material.

Eye contact should be prevented through use of chemical safety glasses with side shields or splash proof goggles. An emergency eye wash must be readily accessible to the work area. Face contact should be prevented through use of a face shield.

**Skin Protection:**

Skin contact should be prevented through use of suitable protective clothing, gloves and footwear, selected with regard for use conditions and exposure potential. Consideration must be given both to durability as well as permeation resistance.

**Work Practice Controls:**

Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material:

- (1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
- (2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
- (3) Wash exposed skin promptly to remove accidental splashes or contact with this material.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product Information phone number in Section 1 for its exact specifications.

**Physical Appearance:**

amber thin liquid.

**Odor:**

odorless.

**pH:**

6 to 8 at 100 wt/wt%.

**Specific Gravity:**

1.26 at 25 C (77 F).

**Water Solubility:**

soluble

**Melting Point Range:**

Not Available

**Boiling Point Range:**

> 100 C (212 F) at 760 mmHg

**Vapor Pressure:**  
< 20 mmHg at 20 C (68 F)

**Vapor Density:**  
Not Available

**Percent Volatiles by Volume:**  
48

## 10. STABILITY AND REACTIVITY

**Chemical Stability:**  
This material is stable under normal handling and storage conditions described in Section 7.

**Conditions To Be Avoided:**  
extreme cold  
heat

**Materials/Chemicals To Be Avoided:**  
strong oxidizing agents

**The Following Hazardous Decomposition Products Might Be Expected:**

**Decomposition Type:** thermal  
oxides of carbon

**Hazardous Polymerization Will Not Occur.**

**Avoid The Following To Inhibit Hazardous Polymerization:**  
not applicable

## 11. TOXICOLOGICAL INFORMATION

**Acute Eye Irritation:**  
No test data found for product.

**Acute Skin Irritation:**  
No test data found for product.

**Acute Dermal Toxicity:**  
No test data found for product.

**Acute Respiratory Irritation:**  
No test data found for product.

**Acute Inhalation Toxicity:**  
No test data found for product.

**Acute Oral Toxicity:**

No test data found for product. Ethylene glycol has low toxicity with an LD50 in rats of 4700 mg/kg.

**Chronic Toxicity:**

This product does not contain any substances that are considered by OSHA, NTP, IARC or ACGIH to be "probable" or "suspected" human carcinogens.

No additional test data found for product. Animals studies have shown that ethylene glycol can cause reproductive disorders.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicological Information:**

No data found for product.

**Chemical Fate Information:**

No data found for product.

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method:**

Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.

**Container Handling and Disposal:**

DO NOT REUSE CONTAINERS.

**EPA Hazardous Waste - NO**

## 14. TRANSPORTATION INFORMATION

**Transportation Status: IMPORTANT! Statements below provide additional data on listed DOT classification.**

The listed Transportation Classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors.

**US Department of Transportation**

Shipping Name:

NOT REGULATED

## 15. REGULATORY INFORMATION

### Inventory Status

Inventory	Status
UNITED STATES (TSCA)	Y
CANADA (DSL)	Y
EUROPE (EINECS/ELINCS)	Y
AUSTRALIA (AICS)	Y
JAPAN (MITI)	E
SOUTH KOREA (KECL)	Y

Y = All ingredients are on the inventory.

E = All ingredients are on the inventory or exempt from listing.

P = One or more ingredients fall under the polymer exemption or are on the no longer polymer list. All other ingredients are on the inventory or exempt from listing.

N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing.

### FEDERAL REGULATIONS

#### Inventory Issues:

All functional components of this product are listed on the TSCA Inventory.

#### SARA Title III Hazard Classes:

Fire Hazard	- NO
Reactive Hazard	- NO
Release of Pressure	- NO
Acute Health Hazard	- YES
Chronic Health Hazard	- YES

#### SARA Extremely Hazardous Substances (EHS)/CERCLA Hazardous Substances

Ingredient	CERCLA/SARA RQ	SARA EHS TPQ
ETHYLENE GLYCOL	5000 lbs	

#### STATE REGULATIONS:

This product does not contain any components that are regulated under California Proposition 65.

## 16. OTHER INFORMATION

#### National Fire Protection Association Hazard Ratings--NFPA(R):

1 Health Hazard Rating--Slight

- 1 Flammability Rating--Slight
- 0 Instability Rating--Minimal

**National Paint & Coating Hazardous Materials Identification System--HMIS(R):**

- 1 Health Hazard Rating--Slight
- 1 Flammability Rating--Slight
- 0 Reactivity Rating--Minimal

**Reason for Revisions:**

Change and/or addition made to Section 3, Regulatory Review and Update.

**Key Legend Information:**

ACGIH - American Conference of Governmental Industrial Hygienists  
OSHA - Occupational Safety and Health Administration  
TLV - Threshold Limit Value  
PEL - Permissible Exposure Limit  
TWA - Time Weighted Average  
STEL - Short Term Exposure Limit  
NTP - National Toxicology Program  
IARC - International Agency for Research on Cancer  
ND - Not determined  
RHODIA - Rhodia Established Exposure Limits

**Disclaimer:**

The information herein is given in good faith but no warranty, expressed or implied, is made.

**\*\* End of MSDS Document \*\***