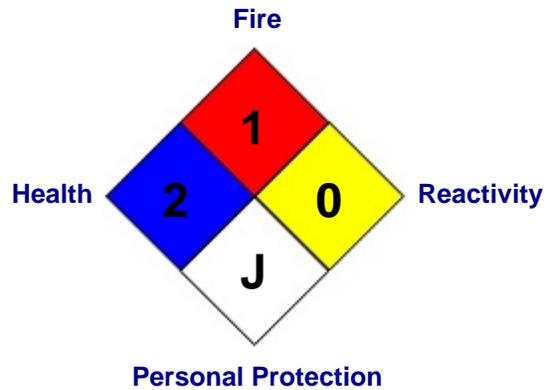




HMS Hazard Rating:

- 4 = Severe
- 3 = Serious
- 2 = Moderate
- 1 = Slight
- 0 = Minimal



I. Chemical Product and Company Identification

Product Name: OB-Fe
 Identification #: 35-475-2020
 Product Use/Class: Gel breaker
 Supplier: Superior Well Services
 Manufacturer: Superior Well Services
 Emergency Contact: CHEMTREC 1 (800) 424-9300
 Prepared By: RAA
 Date Prepared: 03/12/2008

II. Composition/Information on Ingredients

Chemical Name: Propylene Glycol
 CAS Number: 57-55-6
 Percent by Mass Less Than: 40

Exposure Limits

Threshold Limit Value - Time Weighted Average: NE
 Threshold Limit Value - Short Term Exposure Limit: NE
 Permissible Exposure Limit - Time Weighted Average: NE
 Permissible Exposure Limit - Ceiling: NE
 Company Threshold Limit - Time Weighted Average: NE
 Skin: NE

Chemical Name: Ferrous Sulfate, heptahydrate
 CAS Number: 7782-63-0
 Percent by Mass Less Than: 30

Exposure Limits

Threshold Limit Value - Time Weighted Average: 1 mg/m3
 Threshold Limit Value - Short Term Exposure Limit: 1 mg/m3
 Permissible Exposure Limit - Time Weighted Average: 1 mg/m3
 Permissible Exposure Limit - Ceiling: 1 mg/m3
 Company Threshold Limit - Time Weighted Average: NI
 Skin: NI

III. Hazardous Identification

Emergency Overview:	Danger! Inhalation of mist may cause respiratory tract irritation. May cause irritation or burns on eyes and skin.
Effects of Overexposure	Eye Contact: May cause irritation or burning.
	Skin Contact: May cause skin irritation. Allergic reactions are possible. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).
	Inhalation: Inhalation of spray, or mist may result in varying degrees of irritation or damage to the respiratory tract tissues.
	Ingestion: Toxic! May cause pain in the mouth, esophagus and stomach. Hemorrhagic gastritis, nausea, vomiting, abdominal pain, metallic taste and diarrhea may occur. If vomiting does not occur immediately, systemic copper poisoning may occur. Symptoms may include capillary damage, headache, cold sweat, weak pulse, kidney and liver damage, central nervous system excitation followed by depression, jaundice, convulsions, paralysis, and coma. Death may occur from shock or renal failure.
	Chronic Harards: Prolonged or repeated skin exposure may cause dermatitis. Prolonged exposure to dust or mists may cause discoloration of the skin or hair, ulceration and perforation of the nasal septum, runny nose, metallic taste, and atrophic changes and irritation of the mucous membranes. May cause tooth enamel erosion.

Primary Route(s) of Entry:	<input type="checkbox"/> Skin Contact <input type="checkbox"/> Eye Contact <input type="checkbox"/> Ingestion
	<input type="checkbox"/> Skin Absorbtion <input type="checkbox"/> Inhalation

IV. First Aid Measures

Eye Contact:	Immediately, within one minute, flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Get prompt medical attention.
Skin Contact:	Immediately wash with plenty of water for at least 15 minutes. Remove contaminated clothing and footwear. Wash clothing before reuse and discard any footwear which can not be decontaminated. Get medical attention if irritation persists.
Inhalation:	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion:	If swallowed, DO NOT induce vomiting. If victim is fully conscious, drink 1-2 glasses of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

V. Fire Fighting Measures

Flash Point:	N/A
Auto Ignition Temperature:	N/A
Lower Explosive Temp.:	N/A
Upper Explosive Temp.:	N/A
Extinguishing Media:	Alcohol Foam, CO2, Dry Chemical, Water Fog
Unusual Fire and Explosive Harards:	Contact with common metals produced hydrogen gas which may form explosive mixtures in air. Violent steam generation or eruption may occur upon application of direct water stream. Water or foam may cause frothing which can be violent and possibly endanger the life of the firefighter. Liquid mist of propylene glycol can burn. Spills of organic liquis on hot fibrous insulations may lead to lowering the auto ignition temperatures possibly resulting in spontaneous combustion. Containers may explode when involved in a fire.
Special Fire Fighting Procedures:	Containers can build up pressure if exposed to heat (fire). As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent) and full protective gear. Use water spray to keep containers cool.

VI. Accidental Release Measures

Steps to be Taken in Case Material is Released or Spilled: Use proper PPE . Ventilate the area of the spill or leak. Remove all sources of ignition. Vacuum or sweep up material into suitable container for disposal. Avoid misting or spraying to keep runoff out of sewers, ditches or waterways. Clean up spills immediately. Cover small spills with lime. Scoop into plastic or polyethylene lined drums. Follow all federal, state and local disposal regulations.

VII. Handling and Storage

Handling: Avoid contact with eyes, skin or clothing. Avoid breathing vapors . Use with adequate ventilation. DO NOT take internally. Wear appropriate PPE. Wash thoroughly after handling.

Storage: Do not store in steel containers. Keep container closed when not in use. Store in a cool, dry, well ventilated place away from incompatible materials. Protect from physical damage.

VIII. Exposure Controls/Personal Protection

Engineering Controls: TWA = 1 mg/m³ of copper content
If TWA exceeds this limit, proper ventilation is required. Local exhaust and ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product.

Respiratory Protection: A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive air supply respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

Skin Protection: Wear body covering and impervious boots and gloves.

Eye Protection: Wear safety glasses with side shields (or goggles) and a face shield. Do not wear contact lenses.

Other Protective Equipment: Emergency eyewash stations and deluge showers should be available in the work area.

Hygienic Practices: Minimize breathing vapor, mist, or fumes. Avoid prolonged or repeated skin contact. Remove contaminated clothing and launder before reuse. Remove contaminated shoes and thoroughly clean before reuse, discard if oil soaked. Cleanse skin thoroughly after contact, before breaks and meals, and at end of work period. Product is readily removed from skin by waterless hand cleaners followed by washing thoroughly with soap and water.

IX. Physical and Chemical Properties

Boiling Point:	NI	Vapor Density:	NI
Odor:	Mild	Odor Threshold:	NI
Appearance:	Clear yellowish green	Evaporation Rate:	NI
Solubility in H₂O:	Complete	Specific Gravity:	.09-1.15 g/ml
Freeze Point:	NI	pH at 50.0%:	1.0-2.0
Vapor Pressure:	NI	Viscosity:	NI
Physical State:	Liquid		
Coefficient of Water Oil Distribution:	NI		

X. Stability and Reactivity

Conditions to Avoid:	Heat, sparks, flames, and other sources of ignition, and incompatibles. Avoid temperatures above 250 DegF since propylene glycol decomposes at temperatures exceeding that value.
Incompatibility:	Avoid contact with strong acids, strong bases and strong oxidizers. Avoid contact with reactive metals like aluminum, aluminum alloys, carbon steel, copper, copper alloys, zinc, metallic nitrates, and methyl isocyanoacetate.
Hazardous Decomposition Products:	When heated to decomposition, carbon dioxide, carbon monoxide and sulfur oxides may form. Aldehydes or lactic, pyruvic, or acetic acids may also be formed.
Hazardous Polymization:	Will not occur under normal conditions.
Stability:	This product is stable under normal storage conditions.

XI. Toxicological Properties

Toxicological Properties:	No product information is available.
Oral:	No product information is available.
Dermal:	No product information is available.
Inhalation:	No product information is available.

XII. Ecological Information

Ecological Properties:	No product information is available.
Ecotoxicity:	No product information is available.
Chemical Fate Information:	No product information is available.

XIII. Disposal Consideration

Disposal Method:	Consult local, state, and federal regulatory agencies for acceptable disposal procedures and disposal locations. Disposal in streams or sewers may be prohibited by federal, state, and local regulations.
RCRA Status:	DOO2-Characteristic of corrosivity.

XIV. Transportation Information

DOT Proper Shipping Name:	Not DOT Regulated
DOT Technical Name:	
DOT Hazard Class:	
DOT Hazard Subclass:	
DOT UN/NA Number:	
Packing Group:	
Resp. Guide Page:	

XV. Regulatory Information

OSHA:	Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)
TSCA Status:	All components of this product are listed on the Toxic Substance Control Act Inventory.
CERCLA SARA:	This product has been reviewed according to the EPA 'Hazard Categories' promulgated under the sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories: Immediate Health Hazard, Chronic Health Hazard
SARA Section 313 Required Reporting:	

XVI. Other Information

Other Information: NA = Not applicable ND = Not Determined NI = No Information NE = Not Established

This product material safety data sheet provides health and safety information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other uses, or when used in conjunction with other products, exposures must be evaluated by the user so that appropriate handling practices and training programs can be established to ensure safe workplace operations. This information is confidential to Superior Well Services, Ltd. (SWSI) and intended solely for the use of the individual or entity to whom they are directly distributed. Distribution or use beyond the individual or entity is strictly prohibited without the consent of SWSI.