

Material Safety Data Sheet Gel Breaker 710E

SECTION 311 HAZARD CATEGORIES (40 CFR 370)	Acute health hazard, chronic health hazard, Fire hazard, Reactive Hazard
SECTION 312 THRESHOLD PLANNING QUANTITY (40 CFR 370)	
SECTION 313 REPORTABLE INGREDIENTS (40 CFR 372)	Not listed
CERLA/Superfund Reportable Spill Quantity	Not applicable
RCRA Hazardous Waste Classification	If this product becomes a waste, it does meet the criteria of a hazardous waste as defined by the US EPA. (Reactivity D003)

Canadian Regulation

WHMIS	Class C: Oxidizing material
	Class D-2A: Material causing other toxic effects (crystalline silica)
Ingredients Disclosure List	Listed

International Regulations

Chemical Inventory Listings	
Australia (AICS)	Listed
China	Listed
Japan (ENCS)	(1)-406
Korea	KE-09815
Philippines (PICCS)	Listed
EC Symbols	O (Oxidizer) Xn (Harmful) Xi (irritant)
EC Risk Phases	R8- Contact with combustible material may cause fire. R9 - Explosive when mixed with combustible material. R22 - Harmful if ingested. R26/28 - Very toxic by inhalation-crystalline silica. R36 - Irritating to eyes.
EC Safety	S2 - Keep out of the reach of children S22 - Do not breathe dust. S24 - Avoid contact with skin. S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S37 - Wear suitable gloves.

Health - 1
Flammability - 1
Reactivity - 1

National Fire Protection Association (U.S.A.)

This MSDS was prepared in accordance with the following:

ISO 11014-1: Material Safety Data Sheet for Chemical Products
ANSI Z400.1-2004; Material Safety Data Sheets - Preparation

The data in this Material Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. This information is based upon technical information believed to be reliable. It is subject to revision as additional knowledge and experience is gained

Material Safety Data Sheet

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY

Product Name: Gel Breaker 710E

Company: FRAC-CHEM
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2. COMPOSITION AND INFORMATION ON INGREDIENTS

Name	CAS#	% by Weight	TLV/PEL	LC50/LD50 Oral (LD50)
Ammonium persulfate	7727-54-0	>75	ACGIH: 0.1 mg/m ³ TWA	Acute 820 mg/KG (Rat)
Cured acrylic resin	Not available	>16	Not available	Not available
Silica, Crystalline- Quartz	14808-60-7	<10	ACGIH: 0.025 mg/m ³ TWA OSHA: 0.1 mg/m ³ TWA NIOSH: 0.05 mg/m ³ TWA	Acute 3,160 mg/kg (Rat)

3. HAZARDS IDENTIFICATION

Emergency Overview

Oxidizer. Avoid breathing dust. Dust may be harmful and irritating. Ammonim persulfate has low dermal toxicity and is moderate toxic when ingested. Product is minimally irritating to the eyes and non-irritating to the skin. Moderate toxicity if swallowed. If airborne exposure is excessive, wear NIOSH/MSHA approved respirator. This product contains crystalline silica that may cause silicosis and cancer.

Eyes: Minimally irritating to the eyes.

Skin:

Non-irritating to the skin, but may cause skin sensitization, and allergic reaction, upon repeated exposure which becomes evident upon re-exposure

Inhalation:

May cause respiratory tract irritation. Inhalation may be fatal as a result of spasm, inflammation, edema of the respiratory tract.

Ingestion:

May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May be harmful if swallowed.

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Chronic exposure:

Repeated or prolonged exposure may cause allergic reaction to sensitive individual. Allergy may develop with repeated exposures.

Notes to Physician:

Treat symptomatically and supportively

4. FIRST AID MEASURES

Inhalation: Immediately go to a well-ventilated area and rest. Seek immediate medical attention. If breathing is difficult, give oxygen. If not breathing give artificial respiration.

Skin Contact: If the chemical got onto the clothed portion of the body, remove the contaminated clothes, and shower. If the chemical touches exposed skin, such as the hands: Gently and thoroughly wash contaminated skin with running water and non-abrasive soap. COLD water may be used. If irritation develops and persists, seek medical attention.

Eye Contact: Do not rub eyes. IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. COLD water may be used. DO NOT use eye ointment. Seek medical attention if irritation develops and persists.

Ingestion: Remove material from mouth and rinse with water if the victim is conscious and alert. If the material is swallowed, do not induce vomiting. If victim is conscious and alert, give 2 to 4 cupful's of water. Seek immediate medical attention.

5. FIRE-FIGHTING MEASURES

Flammability of the product: this material is not considered flammable or combustible.

Explosion Hazards in Presence of various substances: Oxidizer: Decomposes in storage under conditions of excessive heat and/or moisture causing release of oxides of nitrogen, sulfur and oxygen that supports combustion.

Fire Fighting Media and Instructions: Deluge with water. Do not use carbon dioxide or other gas-filled fire extinguishers, as they will have no effect on decomposing persulfates. In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece.

6. ACCIDENTAL RELEASE MEASURES

Leak/Spill: Ventilate area of leak or spill. Clean-up personnel require goggles and MSHA/NIOSH respiratory protection for dust and organic vapors. Pick-up spill in a manner which does not create dust and place in a suitable container for reclamation or disposal in a method that does not generate dust.

Disposal: Whatever can not be saved for reclamation may be disposed by the following local, state and federal regulations.

7. HANDLING AND STORAGE

Handling

Store in a cool dry place, keep away from heat. Keep away from sources of ignition. Keep away from combustible materials. Avoid breakage of the material. DO NOT breathe dust. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible. Avoid contact with skin and eyes. Keep away from incompatibles such as reducing agents, organic materials, metals, moisture.

Storage

Oxidizing materials should be stored in a separate safety storage cabinet or room. Keep in a tightly closed container, in a cool (less than 85°F), dry and ventilated area. Keep product out of direct sunlight. Product has a shelf life of twelve (12) months. Use a first in – first out storage system.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist; use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection

Splash goggles. Dust mask or respirator are not necessary in areas with adequate ventilation. Be sure to use a MSHA/NIOSH approved respirator when ventilation is inadequate.

Person Protection in Case of a Large Spill

A self-contained breathing apparatus should be used to avoid inhalation of the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form: Solid Granules

Color: Off-White

Odor: Slight acrid

pH (1% in water): 4.5-5.5

Solubility in water: partially soluble

Specific gravity (H₂O = 1): 1.723

10. STABILITY AND REACTIVITY

Stability: The product is stable under ordinary conditions of use and storage. This product becomes unstable in the presence of moisture and reducing agents.

Incompatibility with various substance: Highly reactive with reducing agents and organic materials. Reactive with metals and moisture. Slightly reactive with acids and alkalis.

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Corrosively: Slightly corrosive in presence of steel. Very slightly corrosive in presence of aluminum, of zinc, and of copper.

Special Remarks on Reactivity: Hazardous decomposition products: Oxides of sulfur, sulfuric and ammonia, phosphines, oxides of nitrogen, oxygen which may support combustion and ozone.

11. TOXICOLOGICAL INFORMATION

Routes of entry:

Eye contact. Skin contact. Inhalation. Ingestion.

Target Organs: Sensory irritating – eyes, nose, throat and lungs

Toxic Effects on Humans: Dust may be harmful and irritating. Ammonium persulfate has low dermal toxicity [LD50 (rabbit) > 2,000 mg/kg] and is moderate toxic when ingested [LD50 (rat) > 700 mg/kg, female rat]. Product is minimally irritating to the eyes and non-irritating to the skin.

Special Remarks on other Toxic Effects on Humans:

Crystalline silica (quartz) inhaled from occupational sources is classified as carcinogenic to irritant in case of skin contact and ingestion.

12. ECOLOGICAL INFORMATION

Species	Time (hr)	LC50 (mg/L)
Bluegill sunfish	96	103
Rainbow trout	96	76.3
Daphnia	48	120
Grass shrimp	96	391

13. DISPOSAL CONSIDERATIONS

Waste Disposal: whatever cannot be saved for reclamation may be disposed by following local, state and federal regulations.

14. TRANSPORT INFORMATION

DOT Classification: 5.1
Proper Shipping Name: Ammonium Persulfate.
DOT Identification Number UN1444
Packing Group III

15. REGULATORY INFORMATION

US Regulations

TSCA Inventory Status (40 CFR 710)

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

SECTION 302 Extremely Hazardous

Substances (40 CFR 355, Appendix a)

All components Listed on inventory

Not Listed