

Encapsulated Gel Breaker HT SDS, Safety Data Sheet MSDS, Material Safety Data Sheet

1. Product Identification

<u>Product Name/Synonyms</u>: Encapsulated Ammonium Persulfate HT, Coated Gel Breaker, FinoBreak HT <u>CAS No.</u>: Mixture. <u>Intended Use</u>: Oil & Gas Exploration. Breaking of Gaur Gum Gel in Oil well drilling fracking or fracturing. <u>Molecular Weight</u>: Not applicable <u>Chemical Formula</u>: Not applicable <u>Recommended uses and uses advised against (if any)</u>: Oil & Gas Wells fracturing and Industrial Manufacturing.

SUPPLIER

Company: Finoric LLC Address: 8115 Loop 540, Beasley, Texas, 77417 USA

In case of emergency contact: Contract No: 104662 InfoTrac US: 1-800-535-5053 International: 352-323-3500

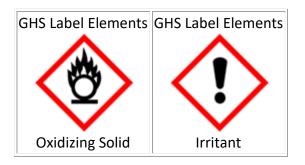
2. Hazards Identification

GHS, Globally Harmonized System Classification in accordance with 29 CFR 1910 Classification according to Regulation (EC) No 1272/2008

Oxidizing Solids Category 3 Acute toxicity - Oral Category 4 Skin corrosion/irritation Category 2 Serious eye damage/eye irritation Category 2A Respiratory sensitization Category 1 Skin sensitization Category 1 Specific target organ toxicity (single exposure), Respiratory tract Category 3

Labeling according to GHS USA & Regulation (EC) No 1272/2008





Signal Words: Warning

Hazard Statements:

- H272: May intensify fire; oxidizer
- H302: Harmful if swallowed
- H315 : Causes skin irritation
- H317: May cause an allergic skin reaction
- H319: Causes serious eye irritation
- H335: May cause respiratory irritation

Precautionary Statements - Prevention:

P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P220: Keep/Store away from clothing/other combustible materials

P221: Take any precaution to avoid mixing with combustibles.

P260: Do not breathe dust/fume/gas/mist/vapors/spray

P264: Wash ... thoroughly after handling

P270: Do not eat, drink or smoke when using this product

P271: Use only outdoors or in a well-ventilated area.

P280-Wear protective gloves/protective clothing/eye protection/face protection.

P285: In case of inadequate ventilation wear respiratory protection.

Precautionary Statements - Response:

P301 + P312: IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.

P302 + P352: IF ON SKIN: Wash with plenty of water.

P304 + P341: IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P314: Get Medical advice/attention if you feel unwell.

P330: If swallowed, rinse mouth.

P332+P313: If skin irritation occurs: Get medical advice/attention

P337+P313: If eye irritation persists: Get medical advice/ attention.

P360: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.

P362: Take off contaminated clothing and wash before reuse.



Precautionary Statements - Storage

P402: Store in a dry place
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification according to EU Directives 67/548/EEC or 1999/45/EC:

Hazard Symbols: O Oxidizing Xn Harmful Xi Irritant <u>Risk Phrases</u>: R8- Contact with combustible material may cause fire. R22 Harmful if swallowed R36/37/38 Irritating to eyes, respiratory system and skin

3. Composition/Information on Ingredients

Name and % Content	CAS Number EINECS EC Number
Ammonium Persulfate Less than 85%	7727-54-0 EC 231-786-5
Other Non-Haz Ingredients Less than 25%	N/A N/A

4. First Aid Measures

Always seek medical attention after first aid measures are provided.

<u>Inhalation</u>: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

<u>Ingestion</u>: If swallowed, Do not induce vomiting. Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

<u>Skin Contact</u>: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing & shoes before reuse. Get medical attention.

<u>Eye Contact:</u> Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

5. Fire Fighting Measures

<u>Fire:</u> Ammonium Persulfate and Encapsulated Gel Breaker is not combustible, but substance is a strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition. Heating or contact with water releases oxygen which may intensify combustion in an existing fire.



Explosion: An explosion hazard when mixed with finely powdered organic matter, metal powder, or reducing agents.

Fire Extinguishing Media: Use means suitable for extinguishing surrounding fire. Avoid water.

<u>Special Information</u>: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. Sealed containers may rupture when heated.

6. Accidental Release Measures

<u>Personal precautions, protective equipment, environmental precautions and emergency procedures</u>: Avoid breathing dust/fumes/gas/mist/vapors/spray. Use individual protective equipment (waterproof boots, suitable protective clothing, safety glasses, etc). Restrict unprotected personnel from the area. Prevent any contact with hot surfaces. Do not approach facing the wind. Do not touch the spilled material. Keep away from drains, surface and groundwater and soil.

Methods and materials used for containment Cleanup procedures and Storage:

Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container. Large Spill: Contain spilled material. It is an oxidizing material. Stop leak if without risk. Avoid contact with a combustible material (wood, paper, oil, clothing...). Keep the substance damp using water spray. Do not touch spilled material. Prevent entry into sewers. Eliminate all ignition sources. Avoid penetration into waterways, sewers, soil or groundwater. Local authorities should be advised if significant spillages cannot be contained.

7. Handling and Storage

<u>Precautions for safe handling</u>: Apply according to good manufacturing and industrial hygiene practices with proper ventilation. Handle product only in closed system or provide appropriate exhaust ventilation at machinery. Wash thoroughly after handling. Do not drink, eat or smoke while handling. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid breathing dust/fumes/gas/mist/vapors/spray. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Use individual protective equipment (waterproof boots, suitable protective clothing, safety glasses, etc). Prevent any contact with hot surfaces. Containers of this material may be hazardous when empty since they retain product residues.

<u>Conditions for safe storage, including any incompatibilities</u>: Store in cool, dry and ventilated area away from heat sources and protected from sunlight in tightly closed original container. Keep air contact to a minimum. Store protected from heat, sparks and ignition sources and incompatible materials. Avoid contact with skin and eyes. Avoid inhalation of dust/mist/vapor. Separate from combustibles, organic or other readily oxidizable materials. Avoid storage on wood floors. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product. Do not store with incompatible materials like reducing agents, organic material, sodium peroxide, water and powdered metals especially aluminum.

8. Exposure Controls/Personal Protection



<u>Airborne Exposure Limits</u>: - ACGIH Threshold Limit Value (TLV): 0.1 mg/m3 (TWA) as persulfate <u>Ventilation System</u>: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. <u>Personal Respirators (NIOSH Approved)</u>: For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerin, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, airsupplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection: Wear protective gloves and clean body-covering clothing.

<u>Eve Protection</u>: Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

<u>Appearance</u>: Encapsulate Gel Breaker is white to off-white crystals Odor: Mild organic odor Odor threshold: Not available. pH: Not available. Relative density: 1.75 Melting point/freezing point: Not available. Initial boiling point and boiling range: Not available. Flash point: Not available. Auto-ignition temperature: Not available. Decomposition temperature: Not available. Upper/lower flammability or explosive limits: Not available. Vapor pressure: Not available. Vapor density: Not available. Evaporation rate: Not available. Flammability (solid, gas): Not available. Partition coefficient: n-octanol/water: Not available. Solubility: Soluble in water. Viscosity: Not available.

10. Stability and Reactivity

<u>Stability:</u> It is stable under ordinary conditions of use and storage. Avoid moisture. <u>Hazardous Decomposition Products:</u> Decomposed by moisture to form oxygen and ozone. Burning may produce nitrogen oxides, sulfur oxides, sulfuric acid, chlorine or hydrochloric acid and fumes. <u>Hazardous Polymerization:</u> Will not occur



Incompatibilities: Reducing agents, organic material, sodium peroxide, water and powdered metals especially aluminum

Conditions to Avoid: Moisture, combustible materials and incompatibles.

11. Toxicological Information

<u>Ammonium Persulfate</u> Oral rat LD50: 740 mg/kg LD50 Dermal > 2000 mg/kg (rat) (Ammonium Persulfate) LC50 Inhalation > 2.95 mg/L (rat) (4-hr) (Ammonium Persulfate) <u>Carcinogenicity:</u> Ammonium Persulfate present at levels 0.1% or more is identified as probable, possible or confirmed human carcinogen by IARC, NTP, ACGIH & OSHA.

<u>Mutagenic Effects</u>: Not available. <u>Developmental Toxicity</u>: Not available. <u>Reproductive Effects</u>: No information available.

The polymer component is not classed as hazardous or toxic substance.

12. Ecological Information

Ammonium Persulfate

<u>Toxicity to fish</u>: LC50 - Oncorhynchus mykiss (rainbow trout) - 76 mg/l - 96 h <u>Toxicity to daphnia and other aquatic invertebrates</u>: EC50 - Daphnia magna (Water flea) - 120 mg/l - 48 <u>Results of PBT and vPvB assessment</u>: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Domestic (Land, DOT USA) & ADR/RID Proper Shipping Name: Contains Ammonium Persulfate UN/NA: UN1444 Hazard Class: 5.1; Packing Group: III International (Water, I.M.O.)



Proper Shipping Name: Contains Ammonium Persulfate UN/NA: UN1444 Hazard Class: 5.1; Packing Group: III

15. Regulatory Information

USA:

<u>The information below is for Ammonium Persulfate:</u> <u>SARA Section 302 Extremely Hazardous Substances</u>: does not have a TPQ. <u>SARA Codes</u>: CAS # 7727-54-0: acute, reactive. <u>Section 313</u>: No chemicals are reportable under Section 313. <u>California No Significant Risk Level</u>: None of the chemicals in this product are listed.

The polymer component is not classed as hazardous or toxic substance.

Section 16 - Additional Information

Prepared by AJK on 27 November 2019 - Printed on: 18 January 2020

Disclaimer:

The information and recommendations set forth herein are presented in good faith and believed correct as of the date the SDS was created. It is compiled from various sources and it is not necessarily all inclusive nor fully adequate in every circumstance. In addition, these suggestions should not be confused with nor followed in violation of applicable laws, regulations, rules or insurance requirements applicable. This SDS is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. This shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.