

Ammonium Persulfate GB-2 SDS, Safety Data Sheet MSDS Sheet, Material Safety Data Sheet

<u>1. Product & Company Identification</u>

<u>Product Name/Synonyms:</u> Ammonium Persulfate; GB-2, Ammonium Peroxydisulfate; Peroxydisulfuric Acid, Diammonium Salt; Diammonium peroxydisulfate <u>CAS No.:</u> 7727-54-0 <u>EINECS EC Number</u>: 231-786-5 <u>Molecular Weight:</u> 228.20 <u>Chemical Formula:</u> (NH4)2S2O8 Recommended uses and uses advised against (if any): Oxidizer for Oil & Gas Wells and Industrial Use.

SUPPLIER

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

In case of emergency contact: 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

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) Category 3 Oxidizing Solids Category 3

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





Signal Word: Danger

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
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
- 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/combustible materials

P221: Take any precaution to avoid mixing with combustibles

P261: Avoid breathing dust.

P264: Wash face, hands and any exposed skin thoroughly after handling

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

- P271: Use only outdoors or in a well-ventilated area
- P272: Contaminated work clothing should not be allowed out of the workplace.
- 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.

P333 + P313: If skin irritation or rash occurs: Get medical advice/ attention.



P337 + P313: If eye irritation persists: Get medical advice/ attention
P342 + P311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor.
P362: Take off contaminated clothing and wash before reuse.
P370 + P378: In case of fire: Use water for extinction

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:

<u>Hazard Symbols</u>: O Oxidizing R 8 Xn Harmful R22 Xi Irritant R36/37/38; R42/43 <u>Risk Phrases</u>: R 8 = Contact with combustible material may cause fire. R22 = Harmful if swallowed. R36/37/38 = Irritating to eyes, respiratory system and skin. R42/43 May cause sensitization by inhalation and skin contact.

<u>Other Information</u>: Risk of decomposition by moisture, heat or by contact with incompatible materials.

3. Composition/Information on Ingredients

<u>Ingredient</u>: Ammonium Persulfate or Ammonium Persulphate <u>CAS No.</u>: 7727-54-0 <u>EINECS EC Number</u>: 231-786-5 <u>Percent</u>: 98 - 100%

<u>4. First Aid Measures</u>

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 is not combustible, but substance is a strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition. Heating 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.

<u>Fire Extinguishing Media</u>: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Use means suitable for extinguishing surrounding fire. Cool containers with flooding quantities of water until well after fire is out.

<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>: It is an oxidizing material. Use appropriate tools to put the spilled solid in a convenient waste disposal container. Keep the substance damp using water spray. Do not touch spilled material. Prevent entry into sewers. Eliminate all ignition sources.

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: 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>: Wear personal protective equipment. Avoid breathing dust. Handle product only in closed system or provide appropriate exhaust ventilation at machinery. Avoid contact with skin and eyes. Remove and wash contaminated clothing before re-use.

Conditions for safe storage, including any incompatibilities:

Keep Ammonium Persulfate in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. 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.



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

Appearance: Ammonium Persulphate is white crystals Odor: Odorless Odor threshold: Not available. pH: Not available. Relative density: 1.98 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: 80 g/l00 ml water @ 25C (77F) Viscosity: Not available.

10. Stability and Reactivity

<u>Stability:</u> Ammonium Persulphate is stable under ordinary conditions of use and storage. Stability decreases in the presence of moisture

Hazardous Decomposition Products: Decomposed by moisture to form oxygen and ozone. Burning may



produce nitrogen oxides, sulfur oxides, and sulfuric acid. Oxygen is released which supports combustion. <u>Hazardous Polymerization:</u> Will not occur

<u>Incompatibilities:</u> Reducing agents, organic material, sodium peroxide, water and powdered metals especially aluminum. Acids, Bases, Halides, Oxidizing agents, Strong reducing agents, Combustible materials. <u>Conditions to Avoid:</u> Moisture, combustible materials and incompatibles.

<u>11. Toxicological Information</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> This product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, NTP, ACGIH & OSHA. <u>Mutagenic Effects</u>: Not available. <u>Teratogenic Effects</u>: Not available. <u>Developmental Toxicity</u>: Not available. <u>Reproductive Effects</u>: No information available.

12. Ecological Information

<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 law.

14. Transport Information

Domestic (Land, D.O.T. USA) & ADR/RID Proper Shipping Name: AMMONIUM PERSULFATE Hazard Class: 5.1; Packing Group: III UN/NA: UN1444 International (Water, I.M.O.) Proper Shipping Name: AMMONIUM PERSULPHATE



Hazard Class: 5.1; Packing Group: III UN/NA: UN1444

15. Regulatory Information

USA:

<u>SARA Section 302 Extremely Hazardous Substances</u>: Does not have a TPQ. <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.

Section 16 - Additional Information

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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.
