Material Safety Data Sheet
Ammonium peroxydisulfate

ACC# 01340

Section 1 - Chemical Product and Company Identification

MSDS Name: Ammonium peroxydisulfate
Catalog Numbers: AC201530010, AC327081000, AC401160020, AC401160100, AC401161000, AC401165000, S70716, S71914, A682-10, A682-3, A682-500, BP179-100, BP179-25
Synonyms: Ammonium persulfate; Peroxydisulfuric acid diammonium salt.
Company Identification:
Fisher Scientific
1 Reagent Lane
Fair Lawn, NJ 07410
For information, call: 201-796-7100
Emergency Number: 201-796-7100
For CHEMTREC assistance, call: 800-424-9300
For International CHEMTREC assistance, call: 703-527-3887

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>Percent</th>
<th>EINECS/ELINCS</th>
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<tbody>
<tr>
<td>7727-54-0</td>
<td>Ammonium persulfate</td>
<td>98</td>
<td>231-786-5</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: white to light yellow powder.

Danger! Strong oxidizer. Contact with other material may cause a fire. Causes eye, skin, and respiratory tract irritation. May cause allergic respiratory and skin reaction. May be harmful if swallowed.

Target Organs: Respiratory system, eyes, skin.

Potential Health Effects

Eye: Causes eye irritation.
Skin: Causes skin irritation. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material.
Ingestion: May cause irritation of the digestive tract. May be harmful if swallowed.
Inhalation: Causes respiratory tract irritation. May cause allergic respiratory reaction.
Chronic: Repeated or prolonged exposure may cause allergic reactions in sensitive individuals.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the
upper and lower eyelids. Get medical aid.
**Skin:** Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.
**Ingestion:** Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.
**Inhalation:** Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.
**Notes to Physician:** Treat symptomatically and supportively.

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**Section 5 - Fire Fighting Measures**

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Strong oxidizer. Contact with other material may cause fire.
**Extinguishing Media:** Use water spray, dry chemical, or carbon dioxide. Cool containers with flooding quantities of water until well after fire is out.
**Flash Point:** Not applicable.
**Autoignition Temperature:** Not available.
**Explosion Limits, Lower:** Not available.
**Upper:** Not available.
**NFPA Rating:** (estimated) Health: 2; Flammability: 0; Instability: 2; Special Hazard: OX

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**Section 6 - Accidental Release Measures**

**General Information:** Use proper personal protective equipment as indicated in Section 8.
**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Provide ventilation. Keep combustibles (wood, paper, oil, etc.,) away from spilled material.

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**Section 7 - Handling and Storage**

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid contact with clothing and other combustible materials. Avoid ingestion and inhalation.
**Storage:** Do not store near combustible materials. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from reducing agents. Store protected from moisture.

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**Section 8 - Exposure Controls, Personal Protection**

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations...
Exposure Limits

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium persulfate</td>
<td>0.1 mg/m3 TWA (as persulfate)</td>
<td>none listed</td>
<td>none listed</td>
</tr>
</tbody>
</table>

OSHA Vacated PELs: Ammonium persulfate: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Section 9 - Physical and Chemical Properties

**Physical State:** Powder

**Appearance:** white to light yellow

**Odor:** odorless

**pH:** Not available.

**Vapor Pressure:** Negligible.

**Vapor Density:** Not available.

**Evaporation Rate:** Negligible.

**Viscosity:** Not available.

**Boiling Point:** Decomposes.

**Freezing/Melting Point:** Not available.

**Decomposition Temperature:** 120 deg C

**Solubility:** 80g/100ml (25 C) (may decompose)

**Specific Gravity/Density:** 1.982 (water=1)

**Molecular Formula:** (NH4)2S2O8

**Molecular Weight:** 228.19

Section 10 - Stability and Reactivity

**Chemical Stability:** Substance is shock sensitive and thermally unstable. Decomposes when heated. May decompose on exposure to moist air or water.

**Conditions to Avoid:** High temperatures, moisture.

**Incompatibilities with Other Materials:** Metals, reducing agents, aluminum, copper, finely powdered metals, iron, magnesium, zinc, lead, silver, nickel, combustible materials.

**Hazardous Decomposition Products:** Nitrogen oxides, carbon monoxide, oxides of sulfur, carbon dioxide, ammonia and/or derivatives, nitrogen.

**Hazardous Polymerization:** Has not been reported.

Section 11 - Toxicological Information
RTECS#:  
CAS# 7727-54-0: SE0350000

LD50/LC50:
CAS# 7727-54-0: Oral, rat: LD50 = 689 mg/kg;

Carcinogenicity:
CAS# 7727-54-0: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No data available.
Teratogenicity: No data available.
Reproductive Effects: No data available.
Neurotoxicity: No data available.
Mutagenicity: No data available.
Other Studies: No data available.

Section 12 - Ecological Information

Ecotoxicity: Daphnia: Daphnia: 120ppm; 48 Hrs.; TLm Fresh water
Fish: Rainbow trout: 76.3ppm; 96 Hrs.; TLm
Fish: Bluegill/Sunfish: 103ppm; 96 Hrs.; TLm

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.
RCRA U-Series: None listed.

Section 14 - Transport Information

<table>
<thead>
<tr>
<th></th>
<th>US DOT</th>
<th>Canada TDG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipping Name:</td>
<td>AMMONIUM PERSULFATE</td>
<td>AMMONIUM PERSULFATE</td>
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<tr>
<td>Hazard Class:</td>
<td>5.1</td>
<td>5.1</td>
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<tr>
<td>UN Number:</td>
<td>UN1444</td>
<td>UN1444</td>
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<tr>
<td>Packing Group:</td>
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<td>III</td>
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</tbody>
</table>

Section 15 - Regulatory Information

US FEDERAL

TSCA
CAS# 7727-54-0 is listed on the TSCA inventory.

Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.
**Chemical Test Rules**  
None of the chemicals in this product are under a Chemical Test Rule.

**Section 12b**  
None of the chemicals are listed under TSCA Section 12b.

**TSCA Significant New Use Rule**  
None of the chemicals in this material have a SNUR under TSCA.

**CERCLA Hazardous Substances and corresponding RQs**  
None of the chemicals in this material have an RQ.

**SARA Section 302 Extremely Hazardous Substances**  
None of the chemicals in this product have a TPQ.

**SARA Codes**  
CAS # 7727-54-0: acute, reactive.

**Section 313**  
No chemicals are reportable under Section 313.

**Clean Air Act:**  
This material does not contain any hazardous air pollutants.  
This material does not contain any Class 1 Ozone depletors.  
This material does not contain any Class 2 Ozone depletors.

**Clean Water Act:**  
None of the chemicals in this product are listed as Hazardous Substances under the CWA.  
None of the chemicals in this product are listed as Priority Pollutants under the CWA.  
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

**OSHA:**  
None of the chemicals in this product are considered highly hazardous by OSHA.

**STATE**  
CAS# 7727-54-0 can be found on the following state right to know lists: New Jersey.

**California Prop 65**

California No Significant Risk Level: None of the chemicals in this product are listed.

**European/International Regulations**

**European Labeling in Accordance with EC Directives**

**Hazard Symbols:**

- XN O

**Risk Phrases:**

- R 22 Harmful if swallowed.
- R 36/37/38 Irritating to eyes, respiratory system and skin.
- R 42/43 May cause sensitization by inhalation and skin contact.
- R 8 Contact with combustible material may cause fire.

**Safety Phrases:**

- S 22 Do not breathe dust.
- S 24 Avoid contact with skin.
- S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S 37 Wear suitable gloves.

**WGK (Water Danger/Protection)**

CAS# 7727-54-0: 1

**Canada - DSL/NDSL**

CAS# 7727-54-0 is listed on Canada's DSL List.

**Canada - WHMIS**

This product has a WHMIS classification of D2B, C, D1B.

**Canadian Ingredient Disclosure List**

CAS# 7727-54-0 is not listed on the Canadian Ingredient Disclosure List.
Section 16 - Additional Information

**MSDS Creation Date:** 7/20/1999  
**Revision #10 Date:** 2/03/2005

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.