SECTION 1: Identification of the substance/mixture and of the supplier

Product name: Ammonium Persulfate ACS

Manufacturer/Supplier Trade name:

Manufacturer/Supplier Article number: S25178

Recommended uses of the product and uses restrictions on use:

Manufacturer Details:
AquaPhoenix Scientific
9 Barnhart Drive, Hanover, PA 17331

Supplier Details:
Fisher Science Education
15 Jet View Drive, Rochester, NY 14624

Emergency telephone number:
Fisher Science Education   Emergency Telephone No.: 800-535-5053

SECTION 2: Hazards identification

Classification of the substance or mixture:

- **Oxidizing**
  - Oxidizing solids, category 3

- **Irritant**
  - Acute toxicity (oral, dermal, inhalation), category 4
  - Skin irritation, category 2

- **Eye irritation**, category 2A
  - Skin sensitization, category 1
  - Specific target organ toxicity following single exposure, category 3

- **Health hazard**
  - Respiratory sensitization, category 1

Oxid. Sol 3
Aq. ChrTox. 3
AcTox. Oral 4
AcTox. Dermal 4
Skin. Irrit 2
Eye. Irrit 2A
Resp. Sens. 1
Skin. Sens 1
STOT SE. 3
Aq. AcTox. 3

Signal word: Danger

Hazard statements:
May intensify fire; oxidizer
Harmful if swallowed
Harmful in contact with skin
Causes skin irritation
May cause an allergic skin reaction
Causes serious eye irritation
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause respiratory irritation
Harmful to aquatic life with long lasting effects

Precautionary statements:
If medical advice is needed, have product container or label at hand
Keep out of reach of children
Read label before use
Keep away from heat/sparks/open flames/hot surfaces. No smoking
Wear protective gloves/protective clothing/eye protection/face protection
In case of inadequate ventilation wear respiratory protection
Keep/Store away from clothing/combustible materials
Take any precaution to avoid mixing with combustibles
Avoid breathing dust/fume/gas/mist/vapours/spray
Wash skin thoroughly after handling
Do not eat, drink or smoke when using this product
Use only outdoors or in a well-ventilated area
Contaminated work clothing should not be allowed out of the workplace
Avoid release to the environment
If eye irritation persists get medical advice/attention
If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician
Take off contaminated clothing and wash before reuse
In case of fire: Use agents recommended in section 5 for extinction
IF ON SKIN: Wash with soap and water
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do.
Continue rinsing
Specific measures (see supplemental first aid instructions on this label)
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth
If skin irritation or a rash occurs: Get medical advice/attention
Store in a well ventilated place. Keep container tightly closed
Store locked up
Dispose of contents and container as instructed in Section 13

Other Non-GHS Classification:

WHMIS

NFPA/HMIS

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Physical Hazard</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
<td>1</td>
<td>X</td>
</tr>
</tbody>
</table>

NFPA SCALE (0-4) | HMIS RATINGS (0-4)
SECTION 3 : Composition/information on ingredients

Ingredients:

<table>
<thead>
<tr>
<th>CAS 7727-54-0</th>
<th>Diammonium peroxydisulphate</th>
<th>100 %</th>
</tr>
</thead>
</table>

Percentages are by weight

SECTION 4 : First aid measures

Description of first aid measures

After inhalation: Seek medical attention. Move exposed to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen. Loosen clothing and place exposed in a comfortable position.

After skin contact: Seek medical attention. Wash hands and exposed skin with soap and plenty of water.

After eye contact: Seek medical attention. Protect unexposed eye. Flush exposed eye gently using water for 15-20 minutes. Remove contact lenses while rinsing.

After swallowing: Seek medical attention. Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed:


Indication of any immediate medical attention and special treatment needed:

If seeking medical attention provide SDS document to physician. Physician should treat symptomatically.

SECTION 5 : Firefighting measures

Extinguishing media

Suitable extinguishing agents: May intensify fire; oxidiser. Use water spray to cool unopened containers. Use water, dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam.

For safety reasons unsuitable extinguishing agents:

Special hazards arising from the substance or mixture:

Combustible dust formation is a risk. Thermal decomposition can lead to release of irritating gases and vapors.

Advice for firefighters:

Protective equipment: Wear protective eyeware, gloves, and clothing. Refer to Section 8.

Additional information (precautions): Avoid dust generation. Avoid inhaling gases, fumes, dust, mist, vapor, and aerosols. Avoid contact with skin, eyes, and clothing.

SECTION 6 : Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation. Ensure that air-handling systems are operational.

Environmental precautions:

Should not be released into environment. Prevent from reaching drains, sewer, or waterway.

Methods and material for containment and cleaning up:

Wear protective eyeware, gloves, and clothing. Refer to Section 8. Always obey local regulations. If necessary use trained response staff or contractor. Evacuate personnel to safe areas. Containerize for disposal. Refer to Section 13. Keep in suitable closed containers for disposal.

Reference to other sections:
Ammonium Persulfate ACS

SECTION 7 : Handling and storage
Precautions for safe handling:
Avoid dust generation. Avoid contact with skin, eyes, and clothing. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Follow proper disposal methods. Refer to Section 13. Do not eat, drink, smoke, or use personal products when handling chemical substances.

Conditions for safe storage, including any incompatibilities:
Store in a cool location. Keep away from food and beverages. Protect from freezing and physical damage. Provide ventilation for containers. Keep container tightly sealed. Store away from incompatible materials.

SECTION 8 : Exposure controls/personal protection

Control Parameters: 7727-54-0, Diammonium peroxodisulphate, TWA 0.1 mg/m3 USA. ACGIH Appropriate Engineering controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-DELs) indicated above.

Respiratory protection: Not required under normal conditions of use. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. When necessary use NIOSH approved breathing equipment.

Protection of skin: Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Use proper glove removal technique without touching outer surface. Avoid skin contact with used gloves. Wear protective clothing.

Eye protection: Face shield and tightly fitting goggles are appropriate eye protection. Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

General hygienic measures: Perform routine housekeeping. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes, and clothing. Before rewearing wash contaminated clothing.

SECTION 9 : Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance (physical state, color):</td>
<td>White powder</td>
</tr>
<tr>
<td>Explosion limit lower:</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Explosion limit upper:</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Odor:</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Odor threshold:</td>
<td>Not Determined</td>
</tr>
<tr>
<td>pH-value:</td>
<td>3 (100g/L)</td>
</tr>
<tr>
<td>Relative density:</td>
<td>1.980 g/cm³</td>
</tr>
<tr>
<td>Melting/Freezing point:</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Solubilities:</td>
<td>Soluble in water: Completely 228 g/l at 20 °C</td>
</tr>
</tbody>
</table>

Vapor pressure: Not Determined
Vapor density: 7.88 - (Air = 1.0)
Relative density: 1.980 g/cm³
### Ammonium Persulfate ACS

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling point/Boiling range</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Flash point (closed cup)</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Auto/Self-ignition temperature</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>120 °C</td>
</tr>
<tr>
<td>Flammability (solid,gaseous)</td>
<td>Flammable</td>
</tr>
<tr>
<td>Viscosity</td>
<td>a. Kinematic: Not Determined</td>
</tr>
<tr>
<td></td>
<td>b. Dynamic: Not Determined</td>
</tr>
<tr>
<td>Density</td>
<td>Not Determined</td>
</tr>
</tbody>
</table>

### SECTION 10 : Stability and reactivity

**Reactivity:** Nonreactive under normal conditions.

**Chemical stability:** Stable under normal conditions.

**Possible hazardous reactions:** None under normal processing.

**Conditions to avoid:** Dust generation. Air, light, and moisture sensitive. Incompatible materials.

**Incompatible materials:** Reducing agents, metals, finely powdered metals, aluminum, copper, magnesium, iron, silver, zinc, lead, nickel, combustible materials.

**Hazardous decomposition products:** Nitrogen oxides. Sulfur oxides. Carbon oxides. Ammonia

### SECTION 11 : Toxicological information

**Acute Toxicity:**

<table>
<thead>
<tr>
<th>Route</th>
<th>CAS Number</th>
<th>LD50 Oral - rat - mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermal</td>
<td>7727-54-0</td>
<td>689 mg/kg</td>
</tr>
<tr>
<td>Dermal</td>
<td>7727-54-0</td>
<td>&gt; 2,000 mg/kg</td>
</tr>
</tbody>
</table>

**Chronic Toxicity:** No additional information.

**Corrosion Irritation:**

<table>
<thead>
<tr>
<th>Route</th>
<th>CAS Number</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ocular</td>
<td>7727-54-0</td>
<td>Eyes - rabbit: Mild eye irritation</td>
</tr>
<tr>
<td>Sensitization</td>
<td></td>
<td>- guinea pig: Causes sensitisation.</td>
</tr>
<tr>
<td>Single Target Organ (STOT):</td>
<td></td>
<td>May cause respiratory irritation.</td>
</tr>
</tbody>
</table>

**Numerical Measures:**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carcinogenicity</td>
<td>No additional information.</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>No additional information.</td>
</tr>
<tr>
<td>Reproductive Toxicity</td>
<td>No additional information.</td>
</tr>
</tbody>
</table>

### SECTION 12 : Ecological information

**Ecotoxicity**

<table>
<thead>
<tr>
<th>Organism</th>
<th>LC50/EC50 (mg/l)</th>
<th>Time (h)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ONCORHYNCHUS MYKISS (RAINBOW TROUT)</td>
<td>76</td>
<td>96</td>
</tr>
<tr>
<td>Daphnia magna (Water flea)</td>
<td>120</td>
<td>48</td>
</tr>
</tbody>
</table>

**Persistence and degradability:**

**Bioaccumulative potential:**

Created by Global Safety Management, Inc. - Tel: 1-813-435-5161 - www.gsmsds.com
Mobility in soil:
Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life.

**SECTION 13 : Disposal considerations**

Waste disposal recommendations:
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Contact a licensed professional waste disposal service to dispose of this material. Dispose of empty containers as unused product. Product or containers must not be disposed together with household garbage. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification.

**SECTION 14 : Transport information**

UN-Number
1444

UN proper shipping name
Ammonium persulfate

Transport hazard class(es)
Packing group: III

Environmental hazard

Transport in bulk:

Special precautions for user:

**SECTION 15 : Regulatory information**

United States (USA)

SARA Section 311/312 (Specific toxic chemical listings):
Reactive, Acute

SARA Section 313 (Specific toxic chemical listings):
7727-54-0 Diammonium peroxodisulphate

RCRA (hazardous waste code):
None of the ingredients is listed

TSCA (Toxic Substances Control Act):
All ingredients are listed.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):
None of the ingredients is listed

Proposition 65 (California):

Chemicals known to cause cancer:
None of the ingredients is listed

Chemicals known to cause reproductive toxicity for females:
None of the ingredients is listed

**Chemicals known to cause reproductive toxicity for males:**
None of the ingredients is listed

**Chemicals known to cause developmental toxicity:**
None of the ingredients is listed

**Canada**

**Canadian Domestic Substances List (DSL):**
All ingredients are listed.

**Canadian NPRI Ingredient Disclosure list (limit 0.1%):**
None of the ingredients is listed

**Canadian NPRI Ingredient Disclosure list (limit 1%):**
None of the ingredients is listed

**SECTION 16 : Other information**

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Note: . The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

**GHS Full Text Phrases:**

**Abbreviations and acronyms:**

Effective date: 02.12.2015
Last updated: 03.23.2015