

# Safety Data Sheet (SDS)

## Section 1: Identification

**Product identifier:** Ammonium persulfate solution

**Other name(s):** APS

**Item number(s):** 212

**Identified use:** SU24 Scientific research and development

**Details of the supplier of the safety data sheet:**

ES Laboratory, LLC

2041 E. Gladstone St. Unit N Glendora, CA 91740 USA

Tel: 626-208-9011

**Emergency telephone number:**

CHEMTREC®

Domestic: 800-424-9300

International: 703-527-3887

## Section 2: Hazard(s) Identification

**Hazardous classification of the substance or mixture:**

Hazard Class	Category code
Corrosive to metals	1
Skin corrosion/irritation	2
Serious eye damage/irritation	2
Respiratory sensitization	1
Skin sensitization	1

**Signal word:** Danger

**Pictogram:**



**Hazard statement(s):**

- H290 May be corrosive to metals.  
H315 Causes skin irritation.  
H317 May cause an allergic reaction.  
H319 Causes serious eye irritation.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Precautionary statement(s):**

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

**Response statement(s):**

- P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
P304+P341 IF INHALED: If breathing is difficult, remove victim 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.  
P342+P311 If experiencing respiratory symptoms: call a POISON CENTRE or doctor/ physician.

**Storage statement(s):**

- P405 Store locked up.

**Disposal statement(s):**

- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Hazard(s) not otherwise classified:** No information.

**Label elements:** See tables above

**HMIS Ratings:**

- Health: 2  
Flammability: 0  
Reactivity: 2

**NFPA Ratings:**

- Health: 2  
Flammability: 0  
Reactivity: 2  
Special hazard: None

## Section 3: Composition/Information on Ingredients

Component	CAS No.	Concentration
Ammonium persulfate	7727-54-0	10-15%

Any concentration shown as a range is to protect the confidentiality or is due to batch variation. Only hazardous components are shown.

## Section 4: First-Aid Measures

**Eye contact:** Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical aid immediately.

**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid immediately.

**Skin contact:** Wash the areas of contact with water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately.

**Ingestion:** Do not induce vomiting. Rinse mouth. Get medical aid immediately.

**Most important symptoms and effects, both acute and delayed:** Sensitization.

**Recommendation for immediate medical care and special treatment needed, when necessary:** No information.

## Section 5: Fire-Fighting Measures

**Extinguishing media:** Water, dry chemical, foam, or carbon dioxide.

**Special hazards arising from the substance or mixture:** Has a fire-promoting effect due to the release of oxygen. Fire may cause the evolution of sulfur oxides and nitrogen oxides.

**Special protective equipment or precautions for firefighters:** Wear full protective clothing and self-contained respirator.

## Section 6: Accidental Release Measures

**Personal precautions, protective equipment, and emergency procedures:** Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation.

**Environmental precautions:** Do not allow the material to be released to the environment without proper government permits.

**Methods and materials for containment and cleaning up:** Use a neutralizing agent. Absorb with a liquid binding material (sand, diatomite, acid binder, universal binders, sawdust). Dispose of contaminated material as waste according to section 13. Ensure adequate ventilation.

## Section 7: Handling and Storage

**Precautions for safe handling:** Ensure good ventilation at the workplace. Use under the hood. Avoid inhalation of vapor or mist.

**Condition for safe storage:** Keep container tightly sealed. Store in an approved corrosive liquid storage container/area. The container will swell. Inspect the content periodically. Twist open the cap slowly to release the gas build up. Discard the product after six months.

**Incompatibilities:** Store away from organic and combustible substances.

**Specific storage requirement(s):** Store below 25 °C, away from heat, direct sunlight.

## Section 8: Exposure Controls/Personal Protection

**Exposure Limits**

Component	CAS No.	ACGIH TLV	OSHA PEL
Ammonium persulfate	7727-54-0	0.1 mg/m <sup>3</sup> TWA	0.1 mg/m <sup>3</sup>

**Engineering controls:** Use general and/or local exhaust ventilation to control the vapor concentration.

**Eye protection:** Wear safety glasses or goggles.

**Skin protection:** Wear protective clothing and chemical resistant gloves.

**Respiratory protection:** Use self-contained respiratory device in an emergency situation.

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## Section 9: Physical and Chemical Properties

<b>Appearance:</b>	Liquid, clear
<b>UFL/LEL:</b>	Not determined
<b>LFL/LEL:</b>	Not determined
<b>Odor:</b>	No odor
<b>Vapor pressure:</b>	Not determined
<b>Odor threshold:</b>	Not determined
<b>Vapor density:</b>	Not determined
<b>pH:</b>	Approx. 6.5
<b>Relative density:</b>	Not determined
<b>Melting Point/Freezing point:</b>	Similar to water
<b>Solubility in water:</b>	Miscible
<b>Boiling point/boiling range:</b>	Similar to water
<b>Flash point:</b>	Does not flash
<b>Evaporation Rate:</b>	Not determined
<b>Flammability (solid, gas):</b>	Not applicable
<b>Partition coefficient (n-octanol/water):</b>	Not determined
<b>Auto-ignition temperature:</b>	Not determined
<b>Decomposition temperature:</b>	Not determined
<b>Viscosity:</b>	Similar to water

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## Section 10: Stability and Reactivity

**Reactivity:** No information.

**Chemical stability:** This product will decompose slowly, release oxygen, and lose effectiveness.

**Stabilizer(s):** Not required.

**Safety issues that may arise should the product change in appearance:** The container will swell. Inspect the content periodically. Twist open the cap slowly to release the oxygen build up.

**Thermal decomposition/ conditions to Avoid:** Avoid heat and incompatibles.

**Possibility of hazardous reactions:** No information.

**Incompatibilities:** strong reducing reagents, organic and combustible substances.

**Hazardous decomposition products:** oxides of sulfur and nitrogen, when heated to decomposition.

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## Section 11: Toxicological Information

### For Ammonium Persulfate:

**Acute Toxicity:** Oral rat LD50: 689 mg/kg.

**Other exposure effect:**

Oral: Toxic effect.

Inhalation: May cause allergy or asthma symptoms.

On the Skin: May cause irritation.

On the Eye: May cause serious eye irritation.

**Additional toxicological information:** To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. No classification data on carcinogenic properties of this material is available from NTP, IARC, ACGIH or OSHA.

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## Section 12: Ecological Information

### Toxicity:

**Aquatic toxicity:** No information.

**Persistence and degradability:** No information.

### Behavior in environmental system:

**Bioaccumulative potential:** No information.

**Mobility in soil:** No information.

**Additional ecological information:** Avoid transfer into the environment.

**Other adverse effects:** No information.

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## Section 13: Disposal Considerations

Place in a chemical waste container for proper disposal in an approved waste disposal facility. Dispose of the content and container in accordance with local, regional, national, international regulations.

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## Section 14: Transport Information

**D.O.T. shipping name:** Corrosive liquid, n.o.s. (ammonium persulfate and water)

**D.O.T. hazard class:** 8

**UN number:** UN1760

**Packing group:** III

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## Section 15: Regulatory Information

**Not meant to be all inclusive, selected regulation represented**

**OSHA status:** These items meet the OSHA Hazard Communication Standard (29 CFR 1910.1200) definition of a hazardous material.

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## Section 16: Other Information

**Disclaimer:** The information above is believed to be accurate and represents the best information currently available to us. ES Laboratory, LLC makes no warranty, express or implied, as to its accuracy, 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. We shall not be liable for any damages to person or property resulting from its use.

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