

# Material Safety Data Sheet

## Ammonium Persulfate, Reagent ACS, (Crystals), 98+% (Titr.)

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Ammonium Persulfate, Reagent ACS, (Crystals), 98+% (Titr.)

**Catalog Number:** C1640

**Synonyms:** Ammonium Persulfate; Peroxydisulfuric Acid Diammonium Salt.

**Company Identification:**

Lab Alley LLC  
22111 Highway 71 West, Suite 601  
Spicewood, Texas 78669

**For information, call:** 512-668-9918

**Emergency Number:** InfoTrac: 800-535-5053

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
7727-54-0	Ammonium persulfate	98.0	231-786-5

**Hazard Symbols:** XN O

**Risk Phrases:** 20/22 8

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: white solid. **Danger!** Strong oxidizer. Contact with other material may cause a fire. May cause allergic skin reaction. Causes eye and skin irritation. Causes digestive and respiratory tract irritation. May be harmful if swallowed.

Target Organs: None.

#### 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: Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May be harmful if swallowed.

Inhalation: Causes respiratory tract irritation. Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema.

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.

## 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. Use water spray to keep fire-exposed containers cool. Oxidizer. Greatly increases the burning rate of combustible materials. This material in sufficient quantity and reduced particle size is capable of creating a dust explosion. May accelerate burning if involved in a fire. Containers may explode when heated.

**Extinguishing Media:** Cool containers with flooding quantities of water until well after fire is out. For small fires, do NOT use dry chemicals, carbon dioxide, halon or foams. USE WATER ONLY. For large fires, flood fire area with water from a distance.

**Flash Point:** Not available.

**Autoignition Temperature:** Not available.

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 2; Flammability: 1; Instability: 1; Special Hazard: OX

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Provide ventilation.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. 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. Wash clothing before reuse.

**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 metals. Keep away from reducing agents.

## 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 low.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Ammonium persulfate	none listed	none listed	none listed

**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 minimize contact with skin.

**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:** Solid

**Appearance:** white

**Odor:** odorless

**pH:** Not available.

**Vapor Pressure:** Negligible.

**Vapor Density:** Not available.

**Evaporation Rate:** Negligible.

**Viscosity:** Not available.

**Boiling Point:** Decomposes.

**Freezing/Melting Point:** 120 deg C

**Decomposition Temperature:** > 120 deg C

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

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

**Molecular Formula:** (NH<sub>4</sub>)<sub>2</sub>S<sub>2</sub>O<sub>8</sub>

**Molecular Weight:** 228.1846

## 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, incompatible materials, ignition sources, metals, combustible materials, organic materials, reducing agents.

**Incompatibilities with Other Materials:** Reducing agents, powdered aluminum, iron, sodium peroxide.

**Hazardous Decomposition Products:** Nitrogen oxides, oxides of sulfur, 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, NIOSH, NTP, or OSHA.

**Epidemiology:** No information available.**Teratogenicity:** No information available.**Reproductive Effects:** No information available.**Neurotoxicity:** No information available.**Mutagenicity:** No information available.**Other Studies:** See actual entry in RTECS for complete information.

## Section 12 - Ecological Information

**Ecotoxicity:** No data available. No information available.**Environmental:** No information found.**Physical:** No information found.**Other:** No information available.

## 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

	US DOT	IATA	RID/ADR	IMO	Canada TDG
<b>Shipping Name:</b>	AMMONIUM PERSULFATE				No information available.
<b>Hazard Class:</b>	5.1				
<b>UN Number:</b>	UN1444				
<b>Packing Group:</b>	III				

## 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.

### SARA

#### 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 depleters. This material does not contain any Class 2 Ozone depleters.

#### 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 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 20/22 Harmful by inhalation and if swallowed.

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 27 Take off immediately all contaminated clothing.

**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 C, D2B.

**Canadian Ingredient Disclosure List****Exposure Limits**

CAS# 7727-54-0: OEL-DENMARK:TWA 2 mg/m<sup>3</sup> OEL-UNITED KINGDOM:TWA 1 mg/m<sup>3</sup>

**Section 16 - Additional Information**

**MSDS Creation Date:** 7/20/1999

**Revision #3 Date:** 3/18/2003

*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 Lab Alley LLC 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 Lab Alley LLC has been advised of the possibility of such damages.*