Material Safety Data Sheet
Ammonium persulfate MSDS

Section 1: Chemical Product and Company Identification

Product Name: Ammonium persulfate
Catalog Codes: SLA4228, SLA3385
CAS#: 7727-54-0
RTECS: SE0350000
TSCA: TSCA 8(b) inventory: Ammonium persulfate
CI#: Not available.
Synonym: Ammonium peroxydisulfate
Chemical Name: Ammonium Persulfate
Chemical Formula: (NH4)2S2O8
Contact Information:
Sciencelab.com, Inc.
14025 Smith Rd.
Houston, Texas 77396
US Sales: **1-800-901-7247**
International Sales: **1-281-441-4400**
Order Online: ScienceLab.com
CHEMTREC (24HR Emergency Telephone), call:
1-800-424-9300
International CHEMTREC, call: 1-703-527-3887
For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:
Name CAS # % by Weight
Ammonium persulfate 7727-54-0 100
Toxicological Data on Ingredients: Ammonium persulfate: ORAL (LD50): Acute: 689 mg/kg [Rat].

Section 3: Hazards Identification

Potential Acute Health Effects:
Hazardous in case of skin contact (irritant, sensitizer), of eye contact (irritant), of ingestion, of inhalation (lung irritant, lung
sensitizer). Prolonged exposure may result in skin burns and ulcerations. Over-exposure by inhalation may cause respiratory
irritation.
Potential Chronic Health Effects:
CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to upper respiratory tract. Repeated or prolonged
exposure to the substance can produce target organs damage.

Section 4: First Aid Measures

Eye Contact:

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.
Skin Contact:
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 before reuse. Thoroughly clean

shoes before reuse. Get medical attention.

Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation:

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek medical attention.

Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: Not available.

Flash Points: CLOSED CUP: Higher than 93.3°C (200°F).

Flammable Limits: Not available.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances:

Slightly flammable to flammable in presence of open flames and sparks, of heat, of reducing materials, of combustible materials.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available. Slightly explosive in presence of reducing materials, of combustible materials, of organic materials, of metals.

Fire Fighting Media and Instructions:

Oxidizing material. Do not use water jet. Use flooding quantities of water. Avoid contact with organic materials.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container.

Large Spill:

Oxidizing material. Stop leak if without risk. Avoid contact with a combustible material (wood, paper, oil, clothing...). Keep substance damp using water spray. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal.

Section 7: Handling and Storage

Precautions:

Keep away from heat. Keep away from sources of ignition. Keep away from combustible material.. Empty containers pose a
fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe
dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested,
seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from
incompatibles such as reducing agents, combustible materials, organic materials, metals.

Storage:

Strong Oxidizer. Moisture Sensitive. Keep container tightly closed. Keep container in a cool, well-ventilated area. Separate
from acids, alkalies, reducing agents and combustibles. See NFPA 43A, Code for the Storage of Liquid and Solid Oxidizers.
Do not store above 23°C (73.4°F).

Section 8: Exposure Controls/Personal Protection

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended
exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants
below the exposure limit.

Personal Protection:

Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid
inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this
product.

Exposure Limits: Not available.

Section 9: Physical and Chemical Properties

Physical state and appearance: Solid.
Odor: Unpleasant. (Slight.)
Taste: Not available.
Molecular Weight: 228.2 g/mole
Color: White to yellowish. (Light.)
pH (1% soln/water): Not available.
Boiling Point: Not available.
Melting Point: 120°C (248°F)
Critical Temperature: Not available.
Specific Gravity: 1.98 (Water = 1)
Vapor Pressure: Not applicable.
Vapor Density: Not available.

Volatility: Not available.
Odor Threshold: Not available.
Water/Oil Dist. Coeff.: Not available.
Ionicity (in Water): Not available.
Dispersion Properties: See solubility in water.
Solubility: Soluble in cold water, hot water.

Section 10: Stability and Reactivity Data

Stability: The product is stable.
Instability Temperature: Not available.
Conditions of Instability: Excess heat, ignition sources, incompatible materials
Incompatibility with various substances: Reactive with reducing agents, combustible materials, organic materials, metals.
Corrosivity: Non-corrosive in presence of glass.
Special Remarks on Reactivity:
Strong oxider. Moisture sensitive. May decompose on exposure to moist air or water. May be shock sensitive and thermally
unstable. Decomposes when heated. Incompatible with powdered aluminum, iron, sodium peroxide.
Special Remarks on Corrosivity: Not available.
Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Inhalation. Ingestion.
Toxicity to Animals: Acute oral toxicity (LD50): 689 mg/kg [Rat].
Chronic Effects on Humans: May cause damage to the following organs: upper respiratory tract.
Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant, sensitizer), of ingestion, of inhalation (lung
irritant, lung sensitizer).
Special Remarks on Toxicity to Animals: Not available.
Special Remarks on Chronic Effects on Humans: Not available.
Special Remarks on other Toxic Effects on Humans:
Acute Potential Health Effects: Skin: Causes skin irritation. May cause skin sensitization, an allergic reation, which becomes
evident upon re-exposure to this material. Eyes: Causes eye irritation. Ingestion: Causes gastrointestinal (digestive) tract
irritation with nausea, vomiting, and diarrhea. May be harmful if swallowed. Inhalation: Causes respiratory tract irritation. May
cause chemical pneumonitis and pulmonary edema, inflammation, edema of bronchi and larynx. Chronic Potential Health
Effects: Repeated or prolonged skin exposure may cause allergic reactions in sensitive individuals. Repeated or prolonged
exposure by inhalation may affect respiration and metabolism.

Section 12: Ecological Information

Ecotoxicity: Not available.
BOD5 and COD: Not available.
Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.
Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:
Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

DOT Classification: CLASS 5.1: Oxidizing material.
Identification: : Ammonium Persulfate UNNA: 1444 PG: III
Special Provisions for Transport: Not available.

Section 15: Other Regulatory Information

Federal and State Regulations:

Connecticut hazardous material survey.: Ammonium persulfate New Jersey: Ammonium persulfate TSCA 8(b) inventory:
Ammonium persulfate
Other Regulations:
OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).
EINECS: This product is on the
European Inventory of Existing Commercial Chemical Substances.
Other Classifications:
WHMIS (Canada): CLASS C: Oxidizing material.
DSCL (EEC):
R8- Contact with combustible material may cause fire. R20/22- Harmful by inhalation and if swallowed. R36/37/38- Irritating
to eyes, respiratory system and skin. R42/43- May cause sensitization by inhalation and skin contact. S22- Do not breathe
dust. S24- Avoid contact with skin. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical
advice. S37- Wear suitable gloves.
HMIS (U.S.A.):
Health Hazard: 2
Fire Hazard: 1
Reactivity: 3
Personal Protection: E
National Fire Protection Association (U.S.A.):
Health: 2
Flammability: 1
Reactivity: 3
Specific hazard:
Protective Equipment:
Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator
when ventilation is inadequate. Splash goggles.

Section 16: Other Information

References: Not available.
Other Special Considerations: Not available.
Created: 10/09/2005 03:58 PM
Last Updated: 11/01/2010 12:00 PM
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 ScienceLab.com 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 ScienceLab.com
has been advised of the possibility of such damages.

Specification And Component of Ammonium Persulphate

Formula:	$(NH_4)_2S_2O_8$
Molecular Weight:	22.19
Physical Properties:	White crystalline powder. Soluble in water. Decomposes slowly and liberates oxygen when meeting moisture. Decomposes completely when heated to 120 degree Centigrate.
Specific Gravity:	1.982
Specifications:	
Appearance:	White crystalline powder.
$Na_2S_2O_8$ Content:	98% min.
Active Oxygen:	6.8% min.
Acid(as H_2SO_4):	0.1% max
Chloride and Chlorate (as Cl):	0.01% max
Manganese(Mn):	0.0001% max
Iron(Fe):	0.001% max
Heavy Metals(as Pb):	0.0003% max
Moisture:	0.15% max
USES:	Widely used as oxidizing agent and bleaching agent in battery industry, flour and starch industry, grease industry etc. and as polymerization initiator, desining agent of fiber industry and etch of printed circuit. Used for surface treatment of metal and transistor, oil film break down of oil development etc.
Packing:	In 25 Kg. net woven bags lined with 2-ply plastic bags.