

Safety Data Sheet

Ammonium Persulfate

CAROLINA[®]
www.carolina.com

Section 1 Product Description

Product Name: Ammonium Persulfate
Recommended Use: Science education applications
Synonyms: Peroxydisulfuric acid, Diammonium salt, Ammonium Peroxydisulfate
Distributor: Carolina Biological Supply Company
2700 York Road, Burlington, NC 27215
1-800-227-1150
Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)
Chemtrec: 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

DANGER



May intensify fire; oxidizer. 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. Harmful to aquatic life.

GHS Classification:

Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2A, Oxidizing Solid Category 3, Hazardous to the aquatic environment - Acute Category 3, Acute Toxicity - Dermal Category 4

Acute Toxicity Oral Contains	100 % of the mixture consists of ingredient(s) of unknown toxicity
Acute Toxicity Inhalation Gas Contains	100 % of the mixture consists of ingredient(s) of unknown toxicity
Acute Toxicity Inhalation Vapor Contains	100 % of the mixture consists of ingredient(s) of unknown toxicity
Acute Toxicity Inhalation Dust/Mist Contains	100 % of the mixture consists of ingredient(s) of unknown toxicity

Section 3 Composition / Information on Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>%</u>
Ammonium Persulfate	7727-54-0	100

Section 4 First Aid Measures

Emergency and First Aid Procedures

Inhalation: IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Eyes: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact: IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. Take off contaminated clothing and wash before reuse. If skin irritation or rash occurs: Get medical advice/attention.

Ingestion: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Section 5 Firefighting Procedures

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Extinguishing Media:	Water fog in flooding quantities. Apply water from as far a distance as possible.
Fire Fighting Methods and Protection:	Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
Fire and/or Explosion Hazards:	Product is a strong oxidizer.
Hazardous Combustion Products:	Nitrogen containing gases, Sulfuric Acid fumes

Section 6 Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled:	Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits. Avoid dusting. Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.
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Section 7 Handling and Storage

Handling:	Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Keep/Store away from clothing/.../combustible materials. Take any precaution to avoid mixing with combustibles. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. In case of inadequate ventilation wear respiratory protection.
Storage:	Keep container tightly closed in a cool, well-ventilated place.
Storage Code:	Yellow - Reactive. Store separate and away from incompatible material.

Section 8 Protection Information

Chemical Name	ACGIH		OSHA PEL	
	(TWA)	(STEL)	(TWA)	(STEL)
Ammonium Persulfate	0.1 mg/m ³ TWA (as Persulfate)	N/A	N/A	N/A

Control Parameters	
Engineering Measures:	Local exhaust ventilation, process enclosures, or other engineering controls are necessary when handling or using this product to avoid overexposure.
Personal Protective Equipment (PPE):	Lab coat, apron, eye wash, safety shower.
Respiratory Protection:	Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. NIOSH approved air purifying respirator with dust/mist filter.
Respirator Type(s):	
Eye Protection:	Wear chemical splash goggles when handling this product. Have an eye wash station available.
Skin Protection:	Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.
Gloves:	No information available

Section 9 Physical Data

Formula: (NH ₄) ₂ S ₂ O ₈	Vapor Pressure: No data available
Molecular Weight: 228.20	Evaporation Rate (BuAc=1): No data available
Appearance: Colorless to pale yellow Crystalline Solid	Vapor Density (Air=1): 7.9
Odor: None	Specific Gravity: 1.98
Odor Threshold: No data available	Solubility in Water: Soluble
pH: 1.0 - 2 at 228 g/l at 25 °C	Log Pow (calculated): No data available
Melting Point: No data available	Autoignition Temperature: No data available
Boiling Point: No data available	Decomposition Temperature: 120 - 160 C
Flash Point: No data available	Viscosity: No data available
Flammable Limits in Air: N/A	Percent Volatile by Volume: No data available

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Section 10

Reactivity Data

Reactivity:	Moderately reactive - See below
Chemical Stability:	Stable under normal conditions.
Conditions to Avoid:	Exposure to moisture
Incompatible Materials:	Strong reducing agents, Organic Compounds, flammable liquids, Metals (powdered)
Hazardous Decomposition Products:	Sulfuric Acid fumes, Nitrogen containing gases
Hazardous Polymerization:	Will not occur

Section 11

Toxicity Data

Routes of Entry	Inhalation, ingestion, eye or skin contact.
Symptoms (Acute):	Headache, Dermatitis, Vomiting, Respiratory Irritation, Nausea, Allergies
Delayed Effects:	Allergies

Acute Toxicity:

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Ammonium Persulfate	7727-54-0	Not determined	Not available	Not determined

Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
No data available	7727-54-0	Not listed	Not listed	Not listed

Chronic Effects:

Mutagenicity:	No evidence of a mutagenic effect.
Teratogenicity:	No evidence of a teratogenic effect (birth defect).
Sensitization:	Evidence of a sensitization effect.
Reproductive:	No evidence of negative reproductive effects.
Target Organ Effects:	
Acute:	No data available
Chronic:	No data available

Section 12

Ecological Data

Overview:	This material is not expected to be harmful to the ecology.
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	No data
Other Adverse Effects:	No data

Chemical Name	CAS Number	Eco Toxicity
Ammonium Persulfate	7727-54-0	96 HR LC50 LEPOMIS MACROCHIRUS 103 MG/L [STATIC] 96 HR LC50 ONCORHYNCHUS MYKISS 76.3 MG/L [STATIC] 96 HR LC50 POECILIA RETICULATA 323 MG/L 48 HR EC50 DAPHNIA MAGNA 120 MG/L

Section 13

Disposal Information

Disposal Methods:	Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
Waste Disposal Code(s):	Not Determined

Section 14

Transport Information

Ground - DOT Proper Shipping Name:

Air - IATA Proper Shipping Name:

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UN1444
Ammonium Persulfate
Division 5.1
PG III

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Section 15

Regulatory Information

TSCA Status: All components in this product are on the TSCA Inventory.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
Ammonium Persulfate	7727-54-0	No	No	No	No	No

Section 16

Additional Information

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The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists	NTP	National Toxicology Program
CAS	Chemical Abstract Service Number	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
DOT	U.S. Department of Transportation	ppm	Parts per million
IARC	International Agency for Research on Cancer	RCRA	Resource Conservation and Recovery Act
N/A	Not Available	SARA	Superfund Amendments and Reauthorization Act
		TLV	Threshold Limit Value
		TSCA	Toxic Substances Control Act
		IDLH	Immediately dangerous to life and health