

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name	Ammonium Persulfate
CAS number	7727-54-0
Synonyms	Ammonium peroxydisulfate; Peroxydisulfuric acid diammonium salt

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Laboratory chemicals
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1.3 Details of the supplier of the safety data sheet

Company	Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A.
Telephone	512-668-9918
Fax	512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture


GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Oxidizing solids - Category 3
Acute oral toxicity - Category 4
Skin Corrosion/Irritation - Category 2
Serious eye damage/eye irritation - Category 2
Respiratory sensitization - Category 1

Skin sensitization - Category 1
 Specific target organ toxicity (single exposure) - Category 3
 Target organs - Respiratory system

2.2 GHS Label elements, including precautionary statements

Pictogram	
Signal Word	Danger
Hazard statements	<p>May intensify fire; oxidizer Harmful if swallowed Causes skin irritation Causes serious eye irritation May cause an allergic skin reaction May cause allergy or asthma symptoms or breathing difficulties if inhaled May cause respiratory irritation</p>
Precautionary statements	
Prevention	<p>Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Wear protective gloves/protective clothing/eye protection/face protection Avoid breathing dust/fume/gas/mist/vapors/spray In case of inadequate ventilation wear respiratory protection Contaminated work clothing should not be allowed out of the workplace Use only outdoors or in a well-ventilated area Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep/Store away from clothing/other combustible materials Take any precaution to avoid mixing with combustibles</p>
Inhalation	<p>If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing</p>
Skin	<p>IF ON SKIN: Wash with plenty of soap and water Take off contaminated clothing and wash before reuse If skin irritation or rash occurs: Get medical advice/attention</p>
Eyes	<p>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</p>
Ingestion	<p>IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell Rinse mouth</p>
Fire	<p>In case of fire: Use CO₂, dry chemical, or foam for extinction</p>
Storage	<p>Store in a well-ventilated place. Keep container tightly closed Store locked up</p>
Disposal	<p>Dispose of contents/container to an approved waste disposal plant</p>

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

None identified

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Ammonium persulfate	Ammonium peroxydisulfate; Peroxydisulfuric acid diammonium salt	7727-54-0	>99%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice	If symptoms persist, call a physician. Show this SDS to physician.
If inhaled	Remove to fresh air. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Consult a physician if necessary.
In case of skin contact	Wash off immediately with plenty of water for at least 15 minutes. SPEEDY ACTION IS CRITICAL, GET MEDICAL AID IMMEDIATELY. Remove and wash contaminated clothing and gloves, including the inside, before re-use.
In case of eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
If swallowed	Do NOT induce vomiting. Call a physician or poison control center immediately. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

May cause allergy or asthma symptom or breathing difficulties if inhaled. May cause allergic skin reaction. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

4.3 Indication of any immediate medical attention and special treatment needed

Note to physician: Treat symptomatically

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	Water spray
Unsuitable extinguishing media	No information available

5.2 Specific hazards arising from the substance or mixture

Oxidizer: Contact with combustible/organic material may cause fire. Keep product and empty container away from heat and sources of ignition. Thermal decomposition can lead to release of irritating gases and vapors. May ignite combustibles (wood paper, oil, clothing, etc)

5.3 Special protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

5.4 Further information

NFPA: Health - 2 Flammability - 1 Instability - 2 Physical hazards - OX

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation. Avoid contact with skin, eyes or clothing. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Should not be released into the environment. See section 12 for additional Ecological information. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel into suitable containers for disposal. Avoid dust formation. Keep combustibles (wood, paper, oil, etc) away from spilled material. Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Sweep up and shovel into suitable containers for disposal.

6.4 Reference to other sections

No information available

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions on safe handling

Wear personal protective equipment/face protection. Avoid dust formation. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Keep away from clothing and other combustible materials. Pay attention to flashback. No information available.

Hygiene measures

When using do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store near combustible materials. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.

Incompatibilities

Reducing agents. Metals. Peroxides. Strong oxidizing agents. Strong reducing agents. Combustible material.

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

US. ACGIH Threshold Limit Values		
Component	Type	Value
Ammonium persulfate	TWA	0.1 mg/m ³

8.2 Exposure controls

Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Eye/face protection

Tight sealing safety goggles

Skin protection

Impervious gloves

Body Protection

Wear suitable clothing to prevent skin exposure

Respiratory protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 of European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Control of environmental exposure

No information available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Powder Solid
Appearance	White
Odor	Odorless
Odor Threshold	No information available
pH	3.2 100 g/L
Melting Point/Range	120 °C / 248 °F
Boiling Point/Range	No information available
Evaporation Rate	No information available
Flammability (solid)	No information available
Flammability or explosive limit	No information available
Vapor Pressure	Negligible
Vapor Density	Not applicable
Density	1.98
Solubility	Soluble in water
Partition coefficient; n-octanol/water	No information available
Autoignition Temp	No information available
Decomposition Temp	> 120°C
Viscosity	Not applicable
Molecular Formula	H8 N2 O8 S2
Molecular Weight	228.19
VOC Content(%)	No information available
Oxidizing properties	No information available

9.2 Other safety information

No information available

SECTION 10: Stability and reactivity

10.1 Reactivity

Reactive Hazard

10.2 Chemical stability

Oxidizer: Contact with combustible/organic material may cause fire. Moisture sensitive.

10.3 Possibility of hazardous reactions

None under normal processing

10.4 Conditions to avoid

Avoid dust formation. Combustible material. Excess heat. Exposure to moisture. Incompatible products.

10.5 Incompatible materials

Reducing agent, metals, peroxides, strong oxidizing agents, strong reducing agents, combustible material

10.6 Hazardous decomposition products

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ammonium Persulfate	495 mg/kg	>2000 mg/kg	>2.95 mg/L - 4h

Skin corrosion/irritation

Irritating to eyes, respiratory system and skin

Serious eye damage/eye irritation

No information available

Respiratory or skin sensitization

May cause sensitization by skin contact

Germ cell mutagenicity

No information available

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Ammonium persulfate	7727-54-0	Not listed	Not listed	Not listed	Not listed	Not listed

Specific target organ toxicity - single exposure

Respiratory system

Specific target organ toxicity - repeated exposure

None known

Reproductive toxicity

No information available

Chronic effects

Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

11.2 Additional Information

no information available

SECTION 12: Ecological information

12.1 Toxicity

Do not empty into drains. Contains a substance which is: Harmful to aquatic organisms. The product contains following substances which are hazardous for the environment:

Component	Test	Species	Limit
Ammonium Persulfate	LC50	Freshwater Fish (O. mykiss)	76.3 mg/L, 96h
	LC50	Freshwater Fish (P. reticulata)	323 mg/L, 96h
	LC50	Freshwater Fish (L. macrochirus)	103 mg/L, 96h

12.2 Persistence and degradability

Soluble in water. Persistence is unlikely based on information available.

12.3 Bio accumulative potential

No information available

12.4 Mobility in soil

Will likely be mobile in environment due to its water solubility

12.5 Results of PBT and vPvB assessment

No information available

12.6 Endocrine disrupting properties

No information available

12.7 Other adverse effects

The toxicological properties have not been fully investigated.

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods

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 to ensure complete and accurate classification.

SECTION 14: Transport information

DOT (US)

UN number	UN1444
Proper shipping name	AMMONIUM PERSULFATE
Hazard class	5.1
Packing group	III

IMDG

UN number	UN1444
Proper shipping name	AMMONIUM PERSULFATE
Hazard class	5.1
Packing group	III

IATA

UN number	UN1444
Proper shipping name	AMMONIUM PERSULFATE
Hazard class	5.1
Packing group	III

SECTION 15: Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**SARA 302 Extremely hazardous substance**

Not listed.

SARA 311/312 Hazardous

See section 2 for full list of hazards and precautions

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Not regulated

Food and Drug Administration (FDA)

Not regulated

US state regulations

US. Massachusetts RTK - Substance List

Not listed

US. New Jersey Worker and Community Right-to-Know Act

Listed

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed

California Proposition 65

Not listed

SECTION 16: Other information

Revision date: 06/26/2024

Revision number: 0

SECTION 17: Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.