

SAFETY DATA SHEET

AMMONIUM PERSULFATE

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

1.1 Product identifier:	
CAS Number:	7727-54-0
EC number:	231-786-5
1.2 SYNONYMS:	• Ammonium Peroxydisulfate • Diammonium Peroxydisulphate • Peroxydisulfuric acid • diammonium salt • Peroxydisulfuric acid • ammonium salt

SECTION 2: Hazards identification:

2.1 Classification of the substance or mixture:	Classification according to Regulation (EC) No 1272/2008 The substance is classified according to the CLP regulation.
2.2 Label elements:	Labelling according to Regulation (EC) No 1272/2008 Acute Toxicity (oral) (Category 4) Skin 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) Oxidizing solids (Category 3)
Hazard Pictograms:	
Signal Word:	Danger
Hazard statements:	H302: Harmful if swallowed H315: Causes skin irritation H319: Causes serious eye irritation H317: May cause an allergic skin reaction

	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled H335: May cause respiratory irritation H272: May intensify fire; oxidizer
Precautionary Statements:	P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking P220: Keep/Store away from clothing/ combustible materials P221: Take any precaution to avoid mixing with combustibles P261: Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray P264: Wash face, hands and any exposed skin thoroughly after handling P270: Do not eat, drink or smoke when using this product P272: Contaminated work clothing should not be allowed out of the workplace P280: Wear protective gloves/ protective clothing/ eye protection/ face protection P285: In case of inadequate ventilation wear respiratory protection P301 + P312: IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell P330: Rinse mouth P302 + P352: IF ON SKIN: Wash with plenty of soap and water P333 + P313: If skin irritation or rash occurs: Get medical advice/ attention P362: Take off contaminated clothing and wash before reuse P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

	lenses, if present and easy to do. Continue rinsing P337 + P313: If eye irritation persists: Get medical advice/attention P304 + P341: IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing P342 + P311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician P403 + P233: Store in a well-ventilated place. Keep container tightly closed P405: Store locked up P501: Dispose of contents/container to an approved waste disposal plant
2.3 Other hazards:	
Inhalation:	can cause respiratory irritation, coughing, and difficult breathing.
Ingestion:	May cause severe gastrointestinal irritation, nausea, vomiting, and abdominal pain.
Skin Contact:	can cause severe burns, irritation, and allergic reactions,
Eye contact:	May cause irritation, redness, pain and burning sensation.
Chronic Exposure:	may lead to liver and kidney damage, as well as potential effects on the nervous system, and may increase the risk of cancer due to its classification as a suspected carcinogen.
Aggravation of pre-existing conditions :	may aggravate pre-existing conditions such as liver or kidney disease, respiratory disorders, and skin conditions like eczema or dermatitis.

SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation:	Substances
CAS No:	Description: 7727-54-0 AMMONIUM PERSULFATE
Identification number(s):	EC number: 231-786-5

SECTION 4: First aid measures

4.1 Description of first aid measures	
General information:	
After inhalation:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician
After skin contact:	Wash with soap and water. Cover the irritated skin with an emollient. Consult a physician.
After eye contact:	Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. consult a physician.
After swallowing:	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If large quantities swallowed, Consult a physician.
4.2 Most important symptoms and effects, both acute and delayed:	Itching; Redness; Coughing and/ or wheezing.
4.3 Indication of any immediate medical attention and special treatment needed:	Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media:	Water Cool containers with flooding quantities of water until well after fire is out. Do not use carbon dioxide or other gas filled containers as it will have little effect on the ammonium persulfate.
5.2 Special hazards arising from the substance or mixture:	Decomposes under fire conditions to release oxygen that intensifies the fire.
5.3 Advice for firefighters:	Wear fully protective suit, safety glasses and respiratory device .
5.4 further information:	no data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:	Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations.
6.2 Environmental precautions:	Knock down dust with water spray. Avoid penetration into waterways, sewers, soil or groundwater. Local authorities should be advised if significant spillages cannot be contained..
6.3 Methods and material for containment and cleaning up:	Vacuum, shovel or pump waste into a drum and label contents for disposal. Avoid dust formation. Store in closed container. Clean up spill area and treat as special waste.

SECTION 7: Handling and storage

7.1 Precautions for safe handling:	For use in are with adequate ventilation. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material Do not use in confined spaces. Electrostatic discharge protection. Minimize dust generation and accumulation. Avoid ingestion and inhalation.
7.2 Conditions for safe storage, including any incompatibilities:	Store in original containers. Keep containers securely sealed. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks.
Requirements to be met by storerooms and receptacles:	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
7.3 Specific end uses:	no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters	
Additional information about design of technical facilities:	A system of local and general exhaust is recommended
8.2 Exposure controls	
Appropriate engineering controls	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Personal protective equipment:	Dust respirator, protective masks, wearing anti chemical gloves, rubber gloves, etc.
General protective and hygienic measures:	Eyes, body and hand protection, maintain indoor air unobstructed. Wear protective equipment.

	Respiratory protection: Required.
Protection of hands:	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws. Wash and dry hands.
	Eye protection: Required
Protection of Body:	Complete suit protecting against chemicals, Flame retardant antistatic protective clothing.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties	
General Information	
Appearance: Form:	Crystalline Solid
Colour:	White
Odour:	Odourless
pH-value:	5.2
Melting point/Melting range:	120°C
Boiling point/Boiling range:	Not applicable
Flammability (solid, gaseous):	No data available
Ignition temperature:	Not applicable
Decomposition temperature:	100°C
Self-igniting:	Not applicable
Flash point:	Not flammable
Danger of explosion:	Not applicable
Explosion limits: Lower:	No data available
Explosion limits: Upper:	No data available
Vapour pressure:	No data available
Density at 20 °C:	No data available
Relative density:	No data available
Vapour density:	No data available
Evaporation rate:	No data available
Solubility in / Miscibility with- water at 20 °C:	850 g/L @ 25 °C

Partition coefficient:(n-octanol/water)	No data available
Viscosity:	No data available

SECTION 10: Stability and reactivity

10.1 Reactivity	Strong oxidizer
10.2 Chemical stability	Use of persulfates in chemical reactions requires appropriate precautions and design considerations for pressure and thermal relief
10.3 Possibility of hazardous reactions	Decomposing persulfates will evolve large volumes of gas and/or vapor, can accelerate exponentially with heat generation, and create significant and hazardous pressures if contained and not properly controlled or mitigated.
10.4 Conditions to avoid	Heat. (decomposes at 275 °C). Moist
10.5 Incompatible materials	Strong oxidizing agents.
10.6 Hazardous decomposition products	Oxygen which supports combustion; Sulfur oxides.

SECTION 11: Toxicological information

11.1 Information on toxicological effects	
Acute Toxicity:	LD50 (Oral, Rat) : 740 mg/kg LD50 (Dermal, Rabbit) : 2000,g/kg LC50 (Inhalation Rat) : 2.95 mg/m ³ 4 hours
Skin corrosion/Irritation:	Irritating to skin Persulfates in general, specifically diammonium persulfate and dipotassium persulfate.
Serious eye damage/irritation:	can cause serious eye damage and severe irritation.
Respiratory damage/irritation:	may cause respiratory irritation

Ingestion:	may cause nausea, vomiting, abdominal pain
Germ cell mutagenicity:	No data available
Carcinogenicity:	No data available
Reproductive toxicity:	no data available
Specific target organ toxicity - single exposure:	No data available

Specific target organ toxicity - repeated exposure:	No data available
Aspiration hazard:	No data available
Signs and Symptoms of Exposure:	Refer section 2.3
11.2 Additional toxicological information	
Biodegradability:	Not readily biodegradable

SECTION 12: Ecological information

12.1 Toxicity Aquatic toxicity:	LC50 (onchorhynchus mykiss): 76.3 mg/L (96 hr) LC50 (scophlthalmus maximus): 107.6 mg/L (96 hr) EC50 (daphnia magna): 635.7 mg/L (48 hr)
12.2 Persistence and degradability:	Biodegradability does not pertain to inorganic substances
12.3 Bioaccumulative potential:	Not bioaccumulative
12.4 Mobility in soil:	Dissociates into ions.
12.5 Other adverse effects:	No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods	
Uncleaned packaging Recommendation:	dispose of in accordance with local hazardous waste regulations
Recommended cleansing agents:	water, sodium thiosulfate, and sodium carbonate,

SECTION 14: Transport information

14.1 UN-Number • ADR, ADN, IMDG, IATA:	UN 1444
14.2 UN proper shipping name • ADR, ADN, IMDG, IATA:	AMMONIUM PERSULFATE
14.3 Transport hazard class(es) • ADR, ADN, IMDG, IATA :	5.1
14.4 Packing group • ADR, IMDG, IATA:	3
14.5 Environmental hazards:	No data available
Additional information:	This material is shipped in 225 lb. fiber drums, 55 lb. poly bags and 1000 - 2000 lb. IBC's (supersacks)
14.6 Special precautions for user:	Handle responsibly.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Directive 2012/18/EU	Directive 2012/18/EU, under that this substance is classified as a strong oxidizer.
Named dangerous substances:	This substance is listed in the annex 1 to the directive.
15.2 Chemical safety assessment:	Chemical assessment has not been carried out.

SECTION 16: Other information

The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.