

Safety Data Sheet: Ammonium Persulphate

1. Identification

Product	Ammonium Persulphate; CAS 7727-54-0; EC 231-786-5
Use	Professional ingredient and formulation development.
Company	Hainan Zhongxin Chemical Co., Ltd. (ZXCHEM)
Address	Room 1001, Building A, Caohejing Center, No. 1520 Gumei Road, Xuhui District, Shanghai, China
Telephone / email	+86-21-54265599 / sales@zxchem.com.cn
Emergency contact	ZXCHEM office number above, office hours, China time (UTC+8). For urgent medical assistance contact local emergency services.
Scope	Reference safety information for Ammonium Persulphate. The reference composition, concentration and supply-grade differences are described in Section 3. This document does not certify the composition or transport status of a specific delivered batch or a different formulation.

2. Hazards Identification

Classification	Oxidizing solid Category 3; oral toxicity Category 4; skin and eye irritation Category 2; skin and respiratory sensitization Category 1; respiratory irritation Category 3.
Signal word / symbols	Danger; GHS03, GHS07, GHS08
Hazard statements	H272: may intensify fire; oxidizer. H302: harmful if swallowed. H315/H319: skin and serious eye irritation. H317/H334: allergic skin and respiratory effects. H335: respiratory irritation.
Prevention	Use adequate ventilation; avoid inhaling dust. Prevent skin and eye contact. Wear suitable chemical-resistant gloves and eye protection. Wash after handling; keep food and drink out of the work area.
Response	After exposure, stop work and seek medical advice. For severe exposure obtain urgent medical care. Rinse contaminated skin or eyes with water; move an inhalation casualty to fresh air.
Environment	Prevent uncontrolled release to drains, soil or surface water. Collect spills for appropriate disposal.



3. Composition / Information on Ingredients

Reference ingredient	Ammonium persulphate, CAS 7727-54-0, EC 231-786-5. The solid reference lists ≤100%; commercial supply assay ≥98.5%. No unidentified additive percentage is assigned.
Supply grade	Assay ≥98.5%
Applicability	The cited concentration or purity describes the reference material. It is not a certificate of analysis for the delivered batch; different solvents or dilutions require the matching supplier safety document.

4. First-Aid Measures

General	Protect the rescuer from exposure and show the product information to medical personnel. Obtain medical advice if symptoms occur or exposure is significant. Obtain prompt medical attention; urgent assessment is required after ingestion or breathing difficulty.
Inhalation	Move to fresh air and keep the person comfortable. Seek medical care for breathing difficulty or persistent symptoms. Avoid exposing rescuers to dust. Obtain prompt medical attention; urgent assessment is required after ingestion or breathing difficulty.
Skin	Remove contaminated clothing and rinse skin thoroughly with water. Seek medical advice for persistent irritation. Obtain prompt medical attention; urgent assessment is required after ingestion or breathing difficulty.
Eyes	Rinse gently with clean water for at least 15 minutes. Remove contact lenses when easy and continue rinsing. Seek medical advice if irritation persists. Obtain prompt medical attention; urgent assessment is required after ingestion or breathing difficulty.
Ingestion	Rinse the mouth. Do not induce vomiting. Give nothing by mouth to an unconscious person. Obtain medical advice. Obtain prompt medical attention; urgent assessment is required after ingestion or breathing difficulty.
Effects / treatment	Dust may irritate eyes, skin and airways and trigger allergy or asthma symptoms. Obtain prompt medical assessment for exposure, rash or respiratory symptoms. Treatment is symptomatic and directed by a clinician. Obtain prompt medical attention; urgent assessment is required after ingestion or breathing difficulty.

5. Fire-Fighting Measures

Extinguishing media	Use water spray for the incident and cooling where safe. The oxidizer can accelerate burning of other materials; keep combustibles away. Firefighters need protective clothing and self-contained breathing apparatus.
Hazards	Overheating can release nitrogen oxides, sulfur oxides, ammonia and oxygen.
Protection	Firefighters require suitable protective clothing and self-contained breathing equipment. Prevent contaminated firefighting water entering drains.

6. Accidental Release Measures

Personal protection	Restrict access and use ventilation and suitable PPE; avoid raising dust.
Containment	Collect carefully into labelled compatible containers. Keep oxidizers away from organic or combustible absorbents and contamination.
Environment	Prevent drainage and uncontrolled release; use an approved disposal route.

7. Handling and Storage

Handling	Use dust-controlled transfer and suitable local extraction. Wear protective gloves, goggles and work clothing; select fitted respiratory protection if ventilation cannot control exposure. Prevent skin contact and breathing of dust; do not mix with combustibles.
Storage	Store tightly closed, cool, dry and ventilated in a designated oxidizer area. Segregate from combustibles, organic materials, reducing agents and incompatible metals. Protect from moisture, heat and contamination.
Incompatibilities	Combustible and organic materials, reducing agents, incompatible metals and peroxides. Avoid heat, moisture and contamination.

8. Exposure Controls / Personal Protection

Exposure limits	Reference ACGIH TWA 0.1 mg/m3. Follow applicable local exposure requirements and effective dust control.
Engineering controls	Use local extraction where dust can be generated. Maintain accessible eyewash and emergency washing facilities.
Personal protection	Wear chemical-resistant gloves selected for the task, suitable protective clothing and splash goggles. Add face protection for splash-prone tasks.
Respiratory protection	Use a properly selected respirator under a respiratory-protection program where engineering controls do not adequately limit airborne exposure.
Hygiene	Wash after handling, remove contaminated clothing promptly and do not eat, drink or smoke in the work area.

9. Physical and Chemical Properties

Appearance	White crystalline powder
Formula / molecular weight	(NH4)2S2O8 / 228.20 g/mol
Appearance	White crystalline powder
Water solubility, reference at 20°C	582 g/L; decomposition possible
Decomposition onset, reference	Above approximately 120°C
Active oxygen, supply	≥6.90%
Other properties	Product-specific values for odor threshold, vapor pressure, partition coefficient, autoignition temperature and viscosity are not supplied by the selected reference set. No values are inferred.

10. Stability and Reactivity

Stability	Handle and store under the recommended conditions. Prevent contamination and unnecessary heating.
Incompatibilities	Combustible and organic materials, reducing agents, incompatible metals and peroxides. Avoid heat, moisture and contamination.
Decomposition	Overheating can release nitrogen oxides, sulfur oxides, ammonia and oxygen.

11. Toxicological Information

Exposure effects	Dust may irritate eyes, skin and airways and trigger allergy or asthma symptoms. Obtain prompt medical assessment for exposure, rash or respiratory symptoms.
Reference classification	Oxidizing solid Category 3; oral toxicity Category 4; skin and eye irritation Category 2; skin and respiratory sensitization Category 1; respiratory irritation Category 3.
Data limits	Reference rat oral LD50 495 mg/kg, dermal LD50 >2,000 mg/kg, and 4-hour inhalation LC50 >2.95 mg/L. Skin and respiratory sensitization require strict exposure control; endpoints are not delivered-lot testing.

12. Ecological Information

Environmental effects	Prevent release to waterways. Reference fish LC50 76.3 mg/L over 96 hours and water-flea EC50 120 mg/L over 48 hours. The salt is water soluble; no supplied-grade bioaccumulation result is asserted.
Controls	Prevent uncontrolled release, collect spills and dispose of contaminated material through an authorized route.
Assessment	No product-specific PBT/vPvB assessment is claimed. Absence of data does not establish absence of environmental effects.

13. Disposal Considerations

Product	Collect surplus product and contaminated cleanup material for disposal by an authorized chemical-waste contractor in accordance with local requirements.
Packaging	Containers may retain product residues. Do not reuse contaminated packaging without an approved cleaning process; use an authorized disposal route.

14. Transport Information

Classification	Class 5.1 — Oxidizer
UN number	UN 1444
Shipping name	AMMONIUM PERSULPHATE
Class / packing group	DOT / TDG, IMDG and IATA: UN 1444, AMMONIUM PERSULPHATE, Class 5.1, packing group III for the solid reference. Segregate from incompatible cargo.
Transport precautions	Protect packaging and closures from damage, secure loads and prevent releases. This reference is not a shipping declaration for a specific consignment.

15. Regulatory Information

Identity	Ammonium Persulphate; CAS 7727-54-0; EC 231-786-5
HS reference	283340; reference heading rather than a destination customs ruling.
Compliance	Apply applicable workplace, environmental and transport rules. A raw-material listing does not establish authorization for a finished formulation.
Assessment	No ZXCHEM-specific chemical safety assessment or destination registration is asserted.

16. Other Information

Hazard meanings	H272: may intensify fire; oxidizer. H302: harmful if swallowed. H315/H319: skin and serious eye irritation. H317/H334: allergic skin and respiratory effects. H335: respiratory irritation.
Limitations	Prepared as reference safety information for the identified material. It is not a batch analytical certificate or safety assessment of a different solvent-containing formulation.
Revision	2026.1; prepared 2026-10-07. Customer-document branding and title corrected; technical safety data retained.
Document scope	Reference safety information for the material and grade described in Sections 1 and 3. Different concentrations, solvents or formulations require the applicable safety information. This is not a batch analytical certificate.

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