

MATERIAL SAFETY DATA SHEET

Melpat Ammonium Sulphate



1. Product Identification

Trade Name:	Ammonium Sulphate	Chemical Abstract No:	7783-20-2
Chemical Family:	Ammonium Salts	NIOSH No:	BS 4500 000
Chemical Name:	Ammonium Sulphate	Hazchem Code:	2WE corrosive
Synonyms:	Diammodnium Salt; Diammodnium Sulphate; Sulphate of Ammonia	UN Number:	2506

2. Composition

Hazardous Components: Ammonium Sulphates 99-100% by weight.

EEC Classification: Non-hazardous, with moderate health risk.

R Phases: When heated to decomposition, it emits very toxic fumes of NO_x, NH₃ and SO_x.

3. Hazards Identification

Main Hazards:	(Non hazardous)
▪ Hazard index:	2, moderate health risk.
▪ Flammability:	Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.
▪ Hazard Index:	0

Chemical Hazards:

- In contact with strong oxidisers, may cause fires or explosions;
- Decomposes at melting point emitting very toxic fumes of NO_x, NH₃ & SO_x;
- Incandescent reaction on heating with potassium chlorate;
- Reaction with sodium hypochlorate gives unstable explosive nitrogen trichloride;
- Incompatible with (K+NH₄NO₃) KNO₂ (NaK = Nh₄NO₃).





Biological Hazards:

- Moderately toxic by several routes;
- Human systemic effects by indigestion include hypermotility, diarrhoea, nausea or vomiting;
- Roductive hazard: none identified;
- Health Effects:
 - *Eyes:* Causes eye irritation;
 - *Skin:* Prolonged contact may cause irritation. Absorption through the skin has not been identified;
 - *Ingestion:* Gastrointestinal irritation;
 - *Carcinogenicity:* None identified;
 - *Mutagenicity:* None identified;
 - *Neurotoxicity:* None identified.

Reproductive Hazard: None identified

Health Effects – Eyes: Causes eye irritation

Health Effects – Skin: Prolonged contact may cause irritation. Absorption through the skin has not been identified.

Health Effects – Ingestion: Gastrointestinal irrigation.

Health Effects – Inhalation: Irritation of upper respiratory tract.

Carcinogenicity: None identified.

Mutagenicity: None identified.

Neurotoxicity: None identified.

4. First Aid Measures

Product in the eye: In case of eye contact, immediately flush with plenty of water for at least 15 minutes.

Product on skin: In case of contact, immediately flush skin with plenty of water for at least 15 minutes, while removing contaminated clothing and shoes. Wash clothes before re-use.

Product Ingested: Call a physician. If swallowed, if conscious, give large amounts of water. Induce vomiting.

Product Inhaled: If inhaled, remove to fresh air. If not breathing, give artificial respiratory. If breathing is difficult give oxygen. Prompt action is essential.

General: In all exposures, obtain medical attention immediately.





5. Fire Fighting Measures

Extinguishing Media: Use extinguishing media appropriate for surrounding fire. Small fires – dry chemical, CO₂, or water spray. Large fires - CO₂, alcohol-resistant foam or water spray. Move containers from fire area if you can do it without risk.

Special Hazards: Some are oxidisers and may ignite combustible (wood, paper, oil, clothing etc.) Contact with metals may evolve flammable hydrogen gas. Containers may explode when heated. Toxic gases such as ammonia and sulphur dioxide may be produced.

Protective Clothing: Fire-fighters should wear proper protective equipment and self-contained breathing apparatus with full-face piece operated in positive pressure mode.

6. Accidental Release Measures

Personal Precautions: Use the Initial Isolation & Protective Action Distances if provided, otherwise increase - in the downward direction - as necessary (the isolation distance shown under “PUBLIC SAFETY.”

Fire: If tank, rail, car or tank truck is involved in a fire, ISOLATE for 800 metres in all directions. Wear positive-pressure, self-contained breathing apparatus (SCBA). Wear chemical protective clothing & rubber gloves. Structural fire fighters protective clothing is recommended for fire situations only – it is not effective in spill situations.

Environmental Precautions: ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. Absorb or cover with dry earth, sand or other non-combustible material, and transfer to containers. DO NOT GET WATER INSIDE CONTAINERS.

Small Spills: Take fire control water for later disposal : do not scatter in the material. Fire involving Tanks and/or Car/Trailer loads: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Do not get water inside containers. Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank. ALWAYS stay away from the ends of the tanks.

Large Spills: As above.





7. Handling and Storage

Suitable material: Incompatible materials include copper, brass & bronze.

Handling/storage precautions: Safe-T-Data storage colour code: orange (general storage). Keep container tightly closed. Suitable for any general chemical storage area. Do not store near oxidising materials and strong acids.

8. Exposure Controls/Personal Protection

Occupational Exposure Limits: Total dust = TWA OEL-RL 10 mg/m³
Respirable Dust = TWA OEL-RL 5 mg/m³

Engineering Control Measures: Use adequate general or local exhaust ventilation to keep fume or dust levels as low as possible.

Personal Protection – Respiratory: None required where adequate ventilation conditions exist. If airborne concentration is high, use an appropriate respirator or dust mask.

Personal Protection – Hands: Rubber gloves are recommended.

Personal Protection – Eyes: Safety goggles are recommended.

Personal Protection – Skin: Full protective (long-sleeves) clothing and rubber gloves.

Other Protection: None.

9. Physical and Chemical Properties

Appearance:	Brownish grey to white crystals or granules.
Odour:	Odourless (may have slight ammoniacal odour).
pH:	N/A
Boiling Point:	101.3 kPa – N/A
Melting Point:	>280°C
Flash Point:	N/A
Flammability:	N/A
Autoflammability:	N/A
Explosive Properties:	Contact with strong oxides may cause fire or explosion. NOTE: decompresses at melting point.
Oxidising Properties:	Not available.
Vapour Pressure:	N/A
Density:	1.78 at 15°C (solid)
Solubility – water:	Highly soluble
Solubility – solvent:	Not available
Solubility – coefficient:	Not available.
Neurotoxicity:	Not established.





10. Stability and Reactivity

Conditions to Avoid: Stable product, but heat must be avoided.

Incompatible Materials: Strong oxidising agents, copper, brass, bronze and strong acids.

Hazardous Decomposition Products: Ammonia, oxides of sulphur and oxides of nitrogen.

11. Toxicological Information

- **Acute Toxicity:** orl-man TDLo: 1500 mg/kg: GIT GISAAA 45(2), 100.77
orl-rat LD50: 300 mg/kg: CNJMAQ 12,216,48
ipr-mus LD50: 610 mg/kg: UCPHAQ 2,1,41
orl-dom LD50: 3500 mg/kg: AJVRAH 32, 1229, 71

Acute exposure may cause upper respiratory tract irritation/damage. Other target organs are the lungs.

- **Skin & Eye Contact:** See section 3.
 - **Chronic toxicity:** No pertinent chronic effects have been established, but may be possible. Target organs are the respiratory tract and lungs.
 - **Carcinogenicity:** None identified.
 - **Mutagenicity:** None identified.
 - **Reproductive hazards:** None identified.
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12. Ecological Information

Aquatic toxicity – fish: Not established as a marine pollutant.

Aquatic toxicity – daphnia: Not available.

Aquatic toxicity – algae: Not available.

Biodegradability: Not available.

Bio-accumulation: Not available.

Mobility: Not available.

German wgk: Not available.

13. Disposal Considerations

Disposal Methods: Wear self-contained breathing apparatus and fully protective clothing. With a clean shovel, carefully place material into clean, dry container and cover; remove from area. Flush spill area with water. Dispose in accordance with all applicable federal, state & local environmental regulations.

Disposal of Packaging: See above.





14. Transport Information

UN Number:	2506
Substance Identity	N ^o :Not available
ADR/RID Class:	Not available.
ADR/RID Item N^o:	Not available
ADR/RID Hazard Identity N^o:	Not available
IMDG – shipping name:	Chemical not otherwise stated.
IMDG – class:	Not available.
IMDG – packing group:	Not available.
IMDG – marine pollutant:	Not available.
IMDG – EMS N^o:	Not available.
IMDG – MFAG table N^o:	Not available.
IATA – shipping name:	Chemicals not otherwise stated.
IATA – class:	Not available.
IATA – subsidiary risk(s):	Not available.
ADNR – class:	Not applicable.

15. Regulatory Information

EEC Hazard Classification:	Not available.
Risk Phrases:	Not available.
Safety Phrases:	Not available.
National legislation:	Contact your national regulations officer.

CONTACT DETAILS

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