



MATERIAL SAFETY DATA SHEETS

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Ammonium nitrite

1. CHEMICAL IDENTITY

Chemical Name : Ammonium nitrite

Chemical Classification: Explosive

Trade Name :

Synonyms: Nitrous acid, ammonium salt

Formula : H₄N₂O₂

CAS No: 13446-48-5 **UN No:** 0222

Regulated Identification

Shipping Name :

Hazchem Code :

Codes / Label : Class 1.1D, Explosive

Hazardous Waste ID No :

HAZARDOUS INGREDIENTS	C.A.S. No.	HAZARDOUS INGREDIENTS	C.A.S. No.
1 Ammonium nitrite	13446-48-5	3	
2		4	

2. PHYSICAL / CHEMICAL DATA

Boiling Pt. °C:

Physical State: Solid

Appearance: White or yellowish crystals decomposed in hot water.

Melting Pt °C: 32 - 33 (Sublimation)

Vapour Pressure @ 35°C mmHg:

Odour:

Vapour Density(Air =1):

Solubility in water at 30°C g/100ml:

Soluble

Others:

Specific Gravity (Water =1):

pH : Solution slightly alkaline (pH 9)

3. FIRE / EXPLOSION HAZARD DATA

Flammability :

LEL:

Flash Point °C in OC:

TDG Flammability:

UEL:

Flash Point °C in CC:

Autoignition Temperature °C :

Explosion sensitivity to impact:

Explosion sensitivity to static Electricity:

Hazardous Combustion Products :

Hazardous Polymerization :

Combustible Liquid:

Explosive Material: Yes

Corrosive Material

Flammable Material:

Oxidiser :

Others:

Pyrophoric Material:

Organic Peroxide :

4. REACTIVITY DATA

Chemical Stability : Ammonium nitrite is unstable, and decomposes to N₂ and H₂O.

Incompatibility with other material : Incompatible with nickel chromium

Reactivity :

Hazardous :
Reaction Products

5. HEALTH HAZARD DATA

Routes of entry: Inhalation, skin, eyes, ingestion

Effects of Exposure / Symptoms:

The major acute toxic effect is methaemoglobinaemia. Blood is the target organ. Methaemoglobin reduces the oxygen-carrying capacity of the blood. Hypotension and collapse may also occur. Stupor, coma and convulsions in severe poisoning due to severe hypoxia. Tachycardia, hypotension and collapse may also occur. Nausea, vomiting and abdominal pain may be seen.

Emergency Treatment :

Inhalation: Move to fresh air. Administer oxygen and assist ventilation as required.

Skin: Take off contaminated clothes. Wash skin with copious amounts of water.

Eyes: Get medical aid immediately.

Ingestion: Induce emesis and/or gastric lavage if ingestion was recent. Administer activated charcoal.

LD50 (oral-rat) mg/kg:

STEL:

LC50 (rat) mg/kg:

Odour Threshold:

**Permissible
Exposure Limit:**

TLV (ACGIH) :

NFPA Hazard

Health

Flammability

Reactivity

Special

Signals

6. PREVENTIVE MEASURES

Personal Protective :

Equipment

Handling :

Storage : Stored in industries at pH 8-9 and 5 deg C or less.

Precautions :

7. EMERGENCY / FIRST AID MEASURES

FIRE:

Fire Extinguishing Media :

Special Procedure :

Unusual Hazards : Toxic gases can form if buildings, where the material is stored, catch fire. If these materials are enclosed or contaminated with combustible matter, fire may result in an explosion.

EXPOSURE: First Aid Measures:

Inhalation: Move to fresh air. Administer oxygen and assist ventilation as required.

Skin: Take off contaminated clothes. Wash skin with copious amounts of water.

Eyes: Get medical aid immediately.

Ingestion: Induce emesis and/or gastric lavage if ingestion was recent. Administer activated charcoal.

Antidotes / Dosages: Methylene blue (tetramethyl thionine chloride) is the specific antidote indicated in methaemoglobinaemia.

SPILLS :

Steps To Be Taken :

Waste Disposal Method:

8. ADDITIONAL INFORMATION / REFERENCES

9. MANUFACTURERS / SUPPLIERS DATA

NAME OF FIRM :	Contact person
MAILING ADDRESS :	in Emergency :
TELEPHONE / TELEX NOS :	Local Bodies involved :
TELEGRAPHIC ADDRESS :	Standard Packing :
OTHERS :	Trem Card Details / Ref :

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