



MATERIAL SAFETY DATA SHEETS

429

Nitrogen

1. CHEMICAL IDENTITY

Chemical Name : Nitrogen

Chemical Classification:

Trade Name :

Synonyms:

Formula : N₂

CAS No: 7727-37-9

UN No: 1066

Regulated Identification

Shipping Name :

Hazchem Code : 2T

Codes / Label : Class 2.2

Hazardous Waste ID No :

HAZARDOUS INGREDIENTS	C.A.S. No.	HAZARDOUS INGREDIENTS	C.A.S. No.
1 Nitrogen	7727-37-9	3	
2		4	

2. PHYSICAL / CHEMICAL DATA

Boiling Pt. °C: 195.79 (liq.)	Physical State: Gas / liquid.	Appearance: Colorless. Gas condenses to liq; solidifies to snow-white mass.
Melting Pt °C: -210.01 (solid)	Vapour Pressure @ 35°C mmHg:	Odour: Odourless
Vapour Density(Air =1): 0.967	Solubility in water at 30°C g/100ml: Insoluble	Others: Soluble in liquid ammonia, alcohol. 100 vol water absorbs 2.4 vol nitrogen @ 0 deg C
Specific Gravity (Water =1): 0.804 (liquid), and 1.0265 (solid)		pH : Not pertinent

3. FIRE / EXPLOSION HAZARD DATA

Flammability : No	LEL:	Flash Point °C in OC:
TDG Flammability:	UEL:	Flash Point °C in CC:

Autoignition Temperature °C :

Explosion sensitivity to impact: Stable

Explosion sensitivity to static Electricity: Stable

Hazardous Combustion Products :

Hazardous Polymerization :

Combustible Liquid: No	Explosive Material: No	Corrosive Material No
Flammable Material: No	Oxidiser : No	Others:
Pyrophoric Material: No	Organic Peroxide : No	

4. REACTIVITY DATA

Chemical Stability : Incombustible and unreactive.

Incompatibility with other material : Reacts violently in mixture with magnesium powder when a fuse is lit.

Reactivity : Can react violently with lithium, neodymium, titanium, under proper conditions.

Hazardous :

Reaction Products

5. HEALTH HAZARD DATA

Routes of entry: Inhalation, Ingestion, Skin and Eyes

Effects of Exposure / Symptoms:

Inhalation : Hyperventilation may develop. Ingestion : Nausea, vomiting, and gastrointestinal hemorrhage may develop. Skin : Dermal exposure may cause frostbite injury. Severe tissue burns have been reported. Eye : Decreases in night vision, visual acuity, and visual fields (tunnel vision) may occur. Frothy mucous may be seen.

Emergency Treatment :

Inhalation: Remove to fresh air; apply artificial respiration if breathing has stopped; call physician.

Skin: Treat for frostbite; soak in lukewarm water.

Eyes: Treat for frostbite burns caused by liquid.

Ingestion: Seek medical assistance.

LD50 (oral-rat) mg/kg:

STEL:

LC50 (rat) mg/kg:

Odour Threshold:

Permissible Exposure Limit: Asphyxiant

TLV (ACGIH) :

NFPA Hazard	Health	Flammability	Reactivity	Special
Signals	0	3	0	

6. PREVENTIVE MEASURES

Personal Protective Equipment : Avoid contact with liquid. Do not inhale. Provide self-contained breathing apparatus where insufficient air is present. Provide safety face shield, insulated gloves, long sleeved trousers worn outside boots or overhigh top shoes to shed the spilled liquid.

Handling : All chemicals should be considered hazardous. Avoid direct physical contact. Use appropriate, approved safety equipment. Untrained individuals should not handle this chemical or its container. Handling should occur in a chemical fume hood.

Storage : Keep in a cool, dry, dark location in a tightly sealed container or cylinder. Keep away from incompatible materials, ignition sources and untrained individuals. Secure and label area. Protect containers/cylinders from physical damage.

Precautions :

7. EMERGENCY / FIRST AID MEASURES

FIRE:

Fire Extinguishing Media :

Special Procedure : Keep the containers cool by spraying water if exposed to heat or flame.

Unusual Hazards :

EXPOSURE: First Aid Measures:

Inhalation: Remove to fresh air; apply artificial respiration if breathing has stopped; call

physician.

Skin: Treat for frostbite; soak in lukewarm water.

Eyes: Treat for frostbite burns caused by liquid.

Ingestion: Seek medical assistance.

Antidotes / Dosages: Oxygen

SPILLS :

Steps To Be Taken : Shut off leaks if without risks. Do not use water on material itself.

Waste Disposal Method:

8. ADDITIONAL INFORMATION / REFERENCES

In high concentrations, it is a simple asphyxiant. It is narcotic at high concentration and high pressure. Combines with oxygen and hydrogen on sparking, forming nitric oxide and ammonia respectively. Combines directly with lithium and at red heat with calcium, strontium, and barium to form nitrides. Forms cyanides when heated with carbon in presence of alkali or barium oxide.

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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