



CHEMICAL NAM : AMMONIA C.A.S.

No : 7664-41-7

UN No : 1005

1. CHEMICAL IDENTITY :

Chemical Name : **AMMONIA**
Synonyms : Liquid Ammonia, Ammonia Gas, Ammonia Anhydrous
Trade Name
Formula NH_3 :
Regulated Identification | Shipping name AMMONIA :
| Hazchem code : 2 P E
| Label : Non Flammable Gas, Class 2
| Hazardous Waste ID No : 17
Hazardous Ingredients :
C.A.S. No : 7664-41-7

2. PHYSICAL/CHEMICAL DATA

Boiling Pt : -33.4 °C Physical state *Liquified Compr. Gas*
Appearance : *Colourless* Melting/Freezing pt : -77.77 °C
Vapour Pr. (mm Hg) : Specific Gravity : 0.771
Vapour Density : 0.60 (Water = 1) *Very soluble*
(Air = 1) pH : 1N aq. Sol. 11.6
Solubility in water :

3. FIRE AND EXPLOSION HAZARD DATA- NON Flammable

Flammability : NO LEL 16.0 : %
Flash point : °C Not pertinent UEL 25.0 : %
Auto ignition Temp. °C 651.0 :
Explosion sensitivity to impact *Stable* :
Explosion sensitivity to static electricity : *Not available*
Hazardous combustion product : *Emits toxic fumes of NH₃ & NO_x*
Hazardous polymerisation : *Will not occur*
Combustible liquid : YES Flammable material : NO
Corrosive material : NO Explosive material :
NO Oxidiser : NO Pyrophoric material : NO
Organic Peroxide : NO

4. REACTIVITY DATA.

Chemical Stability : *Stable*

Incompatibility : Strong oxidisers, Calcium hypochlorite, Gold, Mercury, Silver, Halogens, Acetaldehyde, Acrolein

Reactivity : Reacts with silver chloride, silver nitrate, silver azide, chlorine, bromine, iodine, heavy metals and their compounds. Incandescent reaction when heated with calcium.

Hazardous Reaction Product : Reaction with silver chloride, silver nitrate, silver azide and silver oxide from explosive silver nitride.

5. HEALTH HAZARD DATA

Routes of Entry : Inhalation, Skin or Eyes

Effect of exposure System : 700 ppm causes eye irritation and permanent injury May result if prompt medical remedial measures are not Taken. 5000ppm may cause death from spun inflammation, Or edema of the larynx. Contact of the liquid with skin freezes the tissues and causes the caustic burns.

Emergency Treatment : Inhalation: Remove the victim to fresh air area and provide artificial respiration or oxygen, if needed. Skin and Eyes:

Wash : The affected area with plenty of water for 15 mins. Seek Medical Aid

LD₅₀ (Oral-Rat) : 350 mg/kg

Permissible Exposure Limit 25 ppm 18 mg/m³ : Odour Threshold 46.8 ppm 32.53 mg/m³ STEL(15min) : 35ppm 27 mg/m³

TLV(ACGIH) : 25 ppm 18 mg/m³

NFPA Hazard Signals	: Health	: Flammability	: Reactivity	: Special
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6. PREVENTIVE MEASURES :

Personal Protective Equipment :

Avoid contact with liquid or vapours. Provide rubber boots, safety goggles, self-contained

Breathing apparatus, gas mask and protective clothing in case of liquid Ammonia.

Handling and Storage:

Precautions.:

Avoid storing along with oxidizing materials and away from all possible sources of ignition. Store in well ventilated, flame resistant locations. Well Store in Ambient Temperature.

7. EMERGENCY / FIRST AID MEASURES

FIRE	<u>Fire extinguishing</u> : Media	Stop flow of gas. Use water spray or fog.
	<u>Special Procedures</u> :	Keep the containers cool by spraying water if exposed to heat or flame .
	<u>Unusual Hazards</u>	Gas is suffocating
EXPOSURE	<u>First Aid Measures</u> :	Inhalation: Remove the victim to fresh air Area, provide artificial respiration or oxygen, if needed. Skin: Remove the contaminated clothes and wash the affected area with plenty of water and soap. Eyes: Flush with plenty of water for 15mins. Seek Medical Aid
	<u>Antidotes/Dosages</u> :	Not available
SPILLS	<u>Steps to be taken</u> :-	Contain leaking liquid on sand or earth, allow to evaporate Dilute the vapours with plenty of water.
	<u>Waste Disposal</u> : .	Seal all waste in vapour tight plastic bags
for	<u>Methods</u>	eventual disposal.

8. ADDITIONAL INFORMATION / REFERENCES

LCLO: 30,000 ppm/5M(ihl-hmn). A human poison by an unspecified route. Difficult to ignite. NH₃ and air in a fire, can detonate. Potentially violent or explosive reactions on contact with interhalogens. Forms sensitive explosive mixture with air and hydrocarbons. Those affected with eye and pulmonary diseases should avoid exposure to Ammonia.

9 MANUFACTURERS/SUPPLIERS DATA

NAME OF FIRM	Rashtriya Chemicals and Fertilisers Ltd., Trombay Unit- Chembur, Mumbai 400074 Thal Unit - Alibag, Dist. Raigad. Maharashtra
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