MATERIAL SAFETY DATA SHEET

1.CHEMICAL IDENTITY

Chemical Name	AMMONIA	: Chemical Classification Inorganic compound
Synonyms	Liquid Ammonia gas	:
	Ammonia Anhydrous	: Trade Name
Formula NH_3		: G.A.S.No.7664-41-7 : U.N.No.1005
Regulated Identification		: Shipping Name Ammonia: Hazchem Code 2 PES :Codes/Label Non-flammable gas, Class 2 : Hazardous waste ID No.17

Hazardous Ingredients	CAS.No	Hazardous Ingredients	C.A.S.No
1. Ammonia	7664-41-7	3.	
2.		4.	

2. PHYSICAL I CHEMICAL DATA

Boiling Pt/Range-33.4°C	: Physical state Liquefied compr. Gas	: Appearance Colorless
	: Vapor Pressure	:Odour Strong pungent odour
Melting I Freezing Pt-77.77°C	: 7600mm Hg at 25.7°C : Solubility	
Vapor Density 0.60	: Solubility	: Others
(Air = 1)	: in water at 30°C very soluble	: Moderately soluble in alcohol
Specific Gravity 0.771 at 0°C	: Soluble	: alcohol
(Water = 1)	: pHIN agSol.116	

3. FIRE/EXPLOSION HAZARD DATA

Flammability	No	: LEL: 16.0%	: Flash Point (°C) Not pertinent
TDG Flammability	NA	: UEL: 25.0%	: Flash Point (°C) Not pertinent

Auto Ignition Temperature (°C)	: 651.0
Explosion sensitivity to impact	: Stable
Explosion sensitivity to static Electricity	: Not available

Hazardous Combustion Products : Emits toxic fumes of NH, & Nox.

Hazardous Polymerization : Will not occur

Combustible Liquid Yes : Explosive Material No : Corrosive Material No

Flammable Material No : Oxidizer No : Others

Pyrophoric Material No : Organic Peroxide No :

4. REACTIVITY DATA

Chemical stability : Stable

Incompatibility : Strong Oxidizers, Calcium Hypochlorite, Gold, Mercury

: Silver, Halogens, Acetaldehyde, Acrolein

With other material :

Reactivity : Reacts with Silver Chloride, Silver Azide. Reacts with chlorine, Bromine, Iodine, heavy metals and other compounds. Incandescent reaction when heated with calcium.

Hazardous reaction products : Reaction with AgCl, AgN0,Silver Azide and Silver Oxide form explosive Silver Nitride.

5. HEALTH HAZARD DATA

Routes of entry : Inhalation, Skin or Eyes.

Effects of : 700PPM causes eye irritation and permanent injury may result if prompt

Exposure/Symptoms : Medical remedial measures are not taken. 5000PPM may cause death from

: spurn inflammation, or edema of the larynx. Contact of the Liquid with skin.

: freezes the tissues and causes caustic burns.

Emergency Treatment : Inhalation-Remove the victim to fresh air area and provide artificial respiration

: or Oxygen, if necessary,

: Skin & Eyes-Wash the effected area for 15min: with plenty of water seek

: medical aid immediately.

LDso (Oral-Rat) mg/kg	350	: STEL 35.0PPM 277 mg/m³	
Permissible Exposure Limit	25 PPM 18mg/m³	: Odour threshold 46.8 PPM 32.53 mg/ m³	
TLV (ACGIH)	25 PPM 18mg/m³	:	
NFPA Hazard	: Health	:Flammability	: Reactivity : Special
Signals	2	1	0

6. PREVENTIVE MEASURES

Personal : Provide rubber boots, safety goggles, self-contained breathing apparatus,gas,mask.

Protective : Protective over clothing in case of Liquid Ammonia.

Equipment :

Handling : Avoid storing along with oxidizing materials. Store in well- ventilated area, away

& Storage : all possible sources of ignition and in flame resistant locations.

Precautions :

7. EMERGENCY/FIRST AID MEASURES

FIRE : Fire Extinguishing: Stop flow of gas. Use water spray or fog.

: Media

: Special Procedure : Keep the containers cool by spraying water if exposed

: Unusual Hazards: Gas is suffocating.

EXPOSURE : First Aid Measures: Inhalation - Remove the victim to fresh air area and provide

: artificial respiration or Oxygen, if necessary.

:Skin & Eyes - Wash the effected area for 15min. with plenty of water. Seek medical

: Aid immediately.

: Antidotes/Dosages: Not available.

SPILLS : Steps to be taken : Contain leaking Liquid on stand or earth. allow to evaporate .

: Dilute the vapors with plenty of water.

: Waste Disposal Method: Seal all waste in vapor tight plastic bags for eventual disposal.