

MATERIAL SAFETY DATA SHEET - 1 / 4

1. CHEMICAL IDENTITY

Chemical Name : *AMMONIA LIQUOR*

Chemical Classification : *Inorganic alkaline compound*

Synonyms : *Aqueous Ammonia, Ammonia Solution, Ammonium Hydroxide*

Trade Name: *Liquor Ammonia*

Formula *NH₄OH* :

Regulated Identification : Shipping Name : *Ammonium Hydroxide*

Hazchem Code : *Not listed* : Codes / Label : *Corrosive, Class8*

Hazardous Waste ID No. *16* : HS Code : *281420*

HAZARDOUS INGREDIENTS : C.A.S.No.

1 *Ammonia* *1336-21-6*

2. PHYSICAL / CHEMICAL DATA

Boiling Pt / Range *36 C* : Physical State *Liquid*: Appearance *Colourless, Waterlike*

Odour : *Pungent Odour*

Vapour Pressure: @ *35 C* *0.5 mm Hg* :

Melting / Freezing Pt : *-77 C* °

Solubility in water at *30 C* *Soluble* Others: *Soluble in Chloroform & Ether*

Vapour Density (Air =1) *0.6*)

Specific Gravity(Water = 1) *0.89 at 20 C* :

PH : *alkaline*

3. FIRE / EXPLOSION HAZARD DATA

Flammability *No* : LEL *Not pertinent* % : Flash Point °C
Not Pertinent (OC)

TDG Flammability *N.A.* : UEL *Not pertinent* % : Flash Point °C
Not Pertinent (CC)

Autoignition Temperature °C : *Not pertinent*

Explosion sensitivity to impact : *Stable*

Explosion sensitivity to static Electricity : *Stable*

Hazardous Combustion Products : *Emits toxic fumes of NH₃ and NO_x*

Hazardous Polymerization : *Will not occur*

Combustible Liquid *No* : Explosive Material *No* : Corrosive
Material *Yes*

Flammable Material *No* : Oxidiser *No* : Others

Pyrophoric Material *No* : Organic Peroxide *No* :

4. REACTIVITY DATA

Chemical Stability : *Stable*
Incompatibility : *Acrolein, Nitromethane, Acrylic acid, Chlorosulphonic acid, Dimethylsulphate, Halogens, HCL, HF*

With other material : *HNO₃, AgNO₃, Ag₂O*

Reactivity : *Reacts with H₂SO₄, strong mineral acids exothermically, Corrosive to Copper, Copper alloys, Aluminium alloys, Galvanised surfaces.*

Hazardous :

Reaction Products : *Not available*

5. HEALTH HAZARD DATA

Routes of entry : *Inhalation, Ingestion, Skin & Eyes*

Effects of : *Causes burning pain in mouth, throat, stomach, constriction of throat and coughing, followed by vomiting of blood*

Exposure / Symptoms : *Severe eye and skin irritation*

Symptoms :

:

6Emergency : *Inhalation: Remove victim to fresh air area, give artificial respiration and oxygen if needed.*

Ingestion : Do

Treatment : *not induce vomiting, lavage stomach with water or lemon juice, milk. Delay may cause perforation of oesophagus or stomach swelling of glottis may necessitate tracheostomy. Eyes: Wash with plenty of water for 15 mins.*

Skin : Wash the affected area with plenty of water. Seek medical aid immediately.

LD₅₀ (oral-rat) 350 mg/kg : STEL 35(NH₃)

ppm 27(NH₃) mg/m³

Permissible exposure Limit 25 (NH₃) ppm 18 (NH₃) mg/m³ : Odour Threshold 50

ppm 36 mg/m³

TLV (ACGIH) 25 (NH₃) ppm 18 (NH₃) mg/m³ :

NFPA Hazard : Health : Flammability : Reactivity : Special

Signals *Not listed* : - : - : - : -

6. PREVENTIVE MEASURES

Personal : *Avoid contact with liquid and vapours.*

Protective : Use rubber boots, gloves, apron, safety goggles. Use of protective oil will reduce skin irritation.

Equipments :

8 Handling : Keep in a cool, strong glass, plastic or rubber stoppered bottles

& Storage : **Avoid storing along with oxidizing materials and away from all**

& Storage : possible sources of ignition

Precautions : **Store in well ventilated, flame resistant locations**

9. EMERGENCY / FIRST AID MEASURES

FIRE : Fire Extinguishing : Not flammable

: Media :

Special Procedure : Keep the container cool by spraying with water if exposed to fire or heat.

Unusual Hazards : Poisonous gases are produced in fire.

10. EXPOSURE: First Aid Measures

Inhalation: Remove the victim to fresh air area, provide artificial respiration.

Ingestion : Do not induce vomiting, lavage stomach with water, lemon juice or : milk.

Eyes: Wash with plenty of water for 15 mins. Skin: Wash the affected are: with plenty of water and soap
Seek medical aid immediately.

Antidotes / Dosages : Not available

SPILLS

Steps To Be Taken: Collect leaking liquid in sealable container, wash away remainder
: with large amount of water.

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

11. EMERGENCY: Fire Extinguishing media: Stop flow of gas. Use water spray or fog
/ FIRE : Special Procedure: Keep the containers cool by spraying with water if
: exposed to heat or flame. : **Unusual Hazards: Gas is suffocating.**

12. FIRST AID MEASURES:

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 15 mins. Seek medical aid .

Antidotes / Dosages : Not available

13. SPILLS : Steps To Be Taken: Contain leaking liquid on sand or earth allow to --4
: evaporate. Dilute the vapours: with plenty of water.

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

14. ADDITIONAL INFORMATION / REFERENCES

C.A.S. No. 1336-21-6:

U.N.No.2672:

H.S. CODE No. 281420

: IMCO Class. 8111

LCLO : 30,000 ppm/5M (ihl-hmn). A human poison can enter by an unspecified route. Difficult to ignite NH₃ and air in fire, can detonate.

Violent or explosive reactions on contact with interhalogens. Forms sensitive explosive mixture with air ad hydrocarbons. Those affected with or and pulmonary diseases should avoid exposure to Ammonia.

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