



SAFETY DATA SHEET
Ammonium Hydroxide

CODE: IQLHDS-H4
Date of issue: 03/03/2018

SAFETY DATA SHEET AMMONIA HYDROXIDE		
DATE OF ELABORATION	REVIEW DATE	COMPANY NAME
03/03/2018	03/03/2018	AMOQUEM S.A DE C.V.

SECTION I. IDENTIFICATION OF THE HAZARDOUS CHEMICAL SUBSTANCE AND THE SUPPLIER OR MANUFACTURER		
1. NAME OF THE DANGEROUS CHEMICAL SUBSTANCE	4. SUPPLIER NAME	
Ammonium Hydroxide	Amoqueem S.A de C.V.	
2. OTHER NAME	5. EMERGENCY:	
Ammonium	Plant	Tel. 01 773 73 100 67
3. USE OF THE SUSTANCE	ADDRESS	
Industrial use. Use as directed.	Poniente 2, Manzana XXVI, Lotes 173 y 174, Parque Industrial Tepeji, Tepeji del Río de Ocampo, Hidalgo.	

SECCIÓN II. HAZARDS IDENTIFICATION			
1. CLASSIFICATION OF THE DANGEROUS CHEMICAL SUBSTANCE			
Hazard class	Category of danger		
Acute toxicity due to ingestion	Categoría 4		
Inhalation toxicity	Categoría 1		
Skin irritation in contact with the skin	Categoría 1A		
Serious eye injuries / Eye irritation	Categoría 1 / STOT RE Categoría 2 / STOT SE Categoría 2		
2. SIGNALING ELEMENTS, PRECAUTIONARY ADVICE AND PRECAUTIONARY PICTOGRAMS			
UN	NFPA	PICTOGRAM	
80 2672	3 1 0 ALC	CORROSIVE	DANGER HEALTH DANGER. ATENTION

Health: 3
Inflamability: 1
Reactivity: 0
Danger!



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Warnings and Risks:

H302 Harmful in case of ingestion
H314 Causes skin burns and eye injuries
H318 Causes serious eye damage
H330 Deadly if inhaled
H371 It can cause damage to the lungs
H373 May cause damage to the lungs from prolonged and repeated exposure
H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long-term effects

Prudence Tips:

P260 Do not inhale powders
P261 Avoid contact on skin, eyes and clothing
P264 Wash face, hands, clothes after material handling
P270 Do not eat, drink or smoke when using this material
P271 Use in widely ventilated area
P273 Do not disperse the environment
P280 Use the personal protection equipment, for hands, eyes, skin

Precaution (Respond)

P301 + P312 If swallowed: Call the health center, a doctor, if you feel discomfort
P303+P361+P353 Contact with skin or hair: Remove and remove all contaminated clothing and rinse skin with water / shower
P304+P340 Inhalation: Remove from contaminated area and place the victim in a ventilated area, in a comfortable position to breathe.
P305+P351+P338 Eye contact: Rinse with water for several minutes. Remove contact lenses (if worn) and continue rinsing
P308+P311 Exposure or with discomfort: Request medical attention
P310 Immediately call the health center or specialized doctor
P314 If you have discomfort, ask for medical attention
P321 Specific medical procedure
P330 Rinse the mouth
P363 Wash contaminated clothing before reuse
P391 Collect and clean up any spill

Precaution (Storage)

P405 Store in a protected and sheltered place

Precaution (Disposal)

P501 Have containers and their contents with an authorized company to arrange

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SECTION III. COMPOSITION / INFORMATION ON THE COMPONENTS

1.CHEMICAL NAME	2. CHEMICAL FAMILY	3. COMMERCIAL NAME
Ammonium Hydroxide	Inorganic Nitrogen Compound/Inorganic Base/Hydrogen Nitride.	Ammonium Hydroxide/ Ammoniacal water
4. SYNONYMS	5.MOLAR MASS	6.CHEMICAL FORMULA
Ammonia solution, Ammonia water	35.05 g/mol	NH4OH
Nombre y % de los componentes		
Ingredients	CAS No.	Porecentaje
Ammonium hydroxide	1336-21.6	100%

Anhydrous Ammonia	7664-41-7	28%
Water	7732-18-5	72%

SECCIÓN IV. FIRST AID MEASURES

1.First aid measures after ingestion	Cause burns to the digestive system. It is painful gastric intolerance	Immediately drink of water, orange juice or water with vinegar. Don't induce vomiting. Seek medical attention immediately.
2.First aid measures after eye contact	Intense irritation, if not treated immediately can cause partial or total blindness.	Gently wash with simple water for 15 minutes, occasionally opening eyelids. Seek medical attention immediately.
3. First aid measures after skin contact	It causes severe burns.	Wash with simple water for 15 minutes. At the same time remove contaminated clothing and footwear. Seek medical attention.
4.First aid measures after inhalation	Extremely irritating to breathe causing choking, if not removed immediately it can die.	Move to a location with adequate ventilation. If breathing is difficult give oxygen. If not breathing, begin rescue breathing. Seek medical attention.

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SECCIÓN V. FIREFIGHTING MEASURES	
1. EXTINGUISHING MEDIA	2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE
Water fog, chemical dust or carbon dioxide for small fires and spray water for large fires.	The gas in combination with air forms a flammable mixture of 16 and 25 % by volume, which on contact with an ignition source can explode. Avoid contact with metallic mercury, oxides and peroxides, perchlorates and halogen. Reacts violently with acids.
3. ADVICE FOR FIREFIGHTERS	4. COMBUSTION PRODUCTS
Use of oxygen mask and sealed protective clothing to prevent contact with skin and eyes.	Irritantin and corrosive gases.

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SECCIÓN VI. ACCIDENTAL RELEASE MEASURES

1. PERSONAL PRECAUTIONA, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES.	2. METHODS FOR CONTAINMENT AND CLEANING UP.
Wear respiratory protection and appropriate clothing. If possible, close the valves of the leakage source. Stand by the wind with regard to spill or leak. Use spray hoses to dilute and absorb ammonia gas.	Contain spill or leak by closing the valves involved, ventilate the area, neutralize, absorb with an inert material or product, collect the residue with caution, wash the contaminated area, request help if necessary.

SECCIÓN VII. HANDLING AND STORAGE

1. PRECAUTIONS FOR SAFE HANDLING.

Keep containers tightly closed and away from sources of heat, sparks of flame. Preferably keep product in cool, well ventilated areas. It must be transported and stored for compatibility. It must be properly labeled (name of product, transport identification (DOT) and first aid indications).

SECCIÓN VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

1. NAME AND % OF COMPONENTS	2. PERMISSIBLE EXPOSURE LIMIT			
Ammonia 99%	18 mg/m ³ (25ppm) CPT 8 exhibition hours			
	27 mg/m ³ (35ppm) OCT short exposure time			
	SEGÚN NOM-010-STPS-1994			
3. IPVS ppm	4. DEGREE OF RISK			
No information available	4.1 Health	4.2 Inflammability	4.3 Reactivity	4.4 Specific
	(3) Serious	(1) Minimum	(0) Does not react	Corrosive
5. PERSONAL PROTECTIVE EQUIPMENT (PPE)				
Use full face masks for gas with green canister (for ammonia); Autonomous equipment to enter and exit areas where significant spillage or leakage has occurred. Complementary equipment is sealed goggles, waterproof outer garments, neoprene gloves, rubber boots and work clothes.				

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SECCIÓN IX. PHYSICAL AND CHEMICAL PROPERTIES

1.APPEARANCE: Colorless gas	8. FLASHPOINT: No information available.
2. ODOR: Biting	9.STEAM PRESSURE: 6658 mmHg to 21°C
3. MELTING POINT: -77.7°C	10.RELATIVE DENSITY: 0.73
4. BOILING POINT (°C): -33°C	11.SOLUBILITY: 89.9g/100 ml to 0°C, 7.4 g/ml to 100°C
5. PERCENT VOLATILITY: 100% Volumen	12. AUTO-IGNITION TEMPERATURE (°C): 695°C.
6. EVAPORATION SPEED (BUTTIACETATE=1): No information available.	13.MOLAR MASS: 17.031 g/mol
7. RELATIVITY IN WATER: It does not react but it generates heat by the hydrolysis.	


SECCIÓN X. STABILITY AND REACTIVITY

1.REACTIVITY	2.CHEMICAL STABILITY	3.CONDITIONS TO AVOID	4.INCOMPATIBLE MATERIALS
No	Stable	Heating and installations with bronze connections.	Strong oxidizers, calcium, hypochlorite, mercury, chlorine, dimethyl, sulphate, halogen, silver, aluminum, copper, bronze.
5.HAZARDOUS DECOMPOSITION PRODUCTS		6.HAZARDOUS POLYMERIZATION	
With certain metals: Iron, nickel, zinc decomposition stars at 300°C.		No	

SECCIÓN XI. TOXICOLOGICAL INFORMATION

1.PROBABLE ROUTES OF INCOME		2.NUMERICAL TOXICITY MEASURES			3.TOXICOLOGICAL EFFECTS
Ingestion	Inhalation	Lethal concentration	TLV: Thersould Limited Value	Letal inhalation	Cough; Irritation of the ears, nose, throat, lungs and skin; chest pain, pulmonary edema, sparkling sputum.
360 mm/kg	4837 ppm/hr	Tlm 1-10 ppm	25 ppm	30000 ppm	

SECCIÓN XII. ECOLOGICAL INFORMATION

1.TOXICITY	2.MOBILITY IN SOIL	3.PICTOGRAM
Toxic to aquatic life, in fis hit is toxic from 0.3 mg/lt.	Soluble in water.	



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SECCIÓN XIII. DISPOSAL CONSIDERATIONS

1. METHOD

Dilute with water in an approximate ratio of 1:5 or as needed and then neutralize with dilute sulfuric acid to pH 6-8. The resulting saline solution is dissolved with more water if appropriate and is eliminated in the wastewater or by the drain.

SECCIÓN XIV. TRANSPORT INFORMATION

1.UN-No. (DOT)	2.CLASIFICACIÓN	3.NFPA	4.PACKING	5. N°. CAS
2672	Corrosive	Health (3), Flammability (1), Reactivity (0), Specific Hazard(Corrosive)	Group III	7664-41-7 Pollutant to water life

SECCIÓN XV. REGULATORY INFORMATION

All ammonia anhydrous containers / containers must be labeled with: Material name, capacity, date and lot (as applicable), NFPA rhombus, hazard statements, UN number, keep in a cool and ventilated place, keep away from sparks or flames, in case of contact with eyes, rinse immediately with plenty of water and seek medical advice. If swallowed, seek medical advice immediately and show this container or label.

SECCIÓN XVI. ACTUALIZATION

The information is believed to be correct but is not exhaustive and is to be used as a guide only, which is based on current knowledge of the chemical or mixture and is applicable to the appropriate safety precautions for the product. Updated according to NOM-018-STPS-2015.