


Section 1. Identification		
Product Identifier	Ammonium Hydroxide 30%	Version: 7 Effective Date: 7 July, 2016
Other Means Of Identification	Liquid ammonia	
Initial Supplier Identifier	Chemfax Products Ltd. 11444 – 42 Street SE Calgary, AB T2C 5C4 Tel: 403-287-2055	
Recommended Use and Restrictions On Use	General Chemical, degreaser, household cleaner. No restrictions.	
Product Family	Amine	
24 Hour Emergency	Canutec (613) 996-6666	

Section 2. Hazard Identification	
Hazard Classification	
Health Hazards	Skin Corrosion/Irritation – Category 1A Eye Damage/Irritation – Category 1 Acute Oral Toxicity – Category 4
Environmental Hazards	Acute Aquatic Toxicity (Short Term) – Category 1
Signal Word	Danger
Hazard Statement	May be harmful if swallowed. May cause severe skin burns and serious eye damage. Very toxic to aquatic life.
Precautionary Prevention Statements	Do not breathe dusts or mists. Wash thoroughly after handling. Wear protective clothing, gloves, eye and face protection. Do not eat, drink or smoke when using this product. Avoid release into the environment.

Precautionary Response Statements	<p>IF SWALLOWED: Rinse mouth. Do not induce vomiting. Call a doctor.</p> <p>IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before re use.</p> <p>IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing. Treat symptomatically. Immediately call a doctor.</p> <p>Collect spillage</p>
Precautionary Storage Statement	Store locked up
Precautionary Disposal Statement	Dispose of in accordance with local, provincial or national regulations
Other Hazards	None

Section 3. Composition / Information on Ingredients			
Chemical Name	Common Name or Synonyms	CAS No. and Other Unique Identifiers	% by weight
Ammonium hydroxide	Liquid ammonia	1336-21-6	10-30

Section 4. First-Aid Measures	
Eye Contact	Flush eyes with water for 15 minutes. Seek medical attention.
Skin Contact	Flush area with water. If irritation persists seek medical attention. Launder clothing before reuse.
Inhalation	Remove victim to fresh air. If there is difficulty breathing, seek immediate medical attention.
Ingestion	Rinse mouth. Do not induce vomiting, seek immediate medical attention.
Most Important Symptoms and Effects, Acute and Delayed	Causes burns by all exposure routes. Ingestion causes severe swelling, severe damage to delicate tissue and danger of perforation: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated.
Immediate Medical Attention and Specific Treatment	Causes burns by all exposure routes. . Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated.

Section 5. Fire-Fighting Measures	
Suitable and Unsuitable Extinguishing Media	Use extinguishing media suitable for surrounding fire.
Hazardous Combustion Products	Ammonia and oxides of nitrogen.
Specific Hazards Arising From the Product	Keep product and empty container away from heat and sources of ignition. Thermal decomposition can lead to release of irritating gases and vapors.
Special Protective Equipment and Precautions for Fire-Fighters	Fire-fighters should wear self contained breathing apparatus and full protective clothing. Use water spray to cool containers and structures exposed to fire.

Section 6. Accidental Release Measures	
Personal Precautions, Protective Equipment, and Emergency Procedures	Respiratory protection, chemical resistant gloves (neoprene), coveralls (rubber suit) and footwear (rubber boots). Keep people away from any upwind of spill/leak. Evacuate personnel to safe areas. Avoid contact with skin, eyes and inhalation of vapors.
Environmental Precautions	Do not allow spilt material to enter sewers and surface watercourses.
Methods and Materials for Containment and Clean-up	Ventilate area. Isolate hazard area and restrict access. Pump up spilt material. Residues can be neutralised with a dilute acid such as acetic acid. Neutralised waste should be placed in a suitable container for disposal.

Section 7. Handling and Storage	
Precautions for Safe Handling	Handle with care. Keep containers closed and stored locked up, when not in use. Empty containers may contain residues.
Conditions for Safe Storage	Store in a cool dry place. Keep away from direct sunlight, heat, sparks and naked flames. Store away from incompatible materials. Storage temperature = <25°C.

Section 8. Exposure Controls / Personal Protection				
Control Parameters	TWA: 8 Hr	STEL: 15 min	Ceiling	IDLH *
Ammonium hydroxide	25 ppm ACGIH	35 ppm ACGIH		300 ppm
	* Immediately Dangerous to Life and Health			
Exposure Controls	Local exhaust ventilation			
Appropriate Engineering Controls	Use only under good ventilation. Ensure that eyewash stations and safety showers are close to the workstation location.			

Individual Protective Measures	If exposure limits are exceeded:
Eye and Face Protection	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Tightly fitting safety goggles. Face-shield.
Skin Protection	Wear appropriate protective gloves and clothing to prevent skin exposure.
Respiratory Protection	Air purifying respirator fitted with ammonia filters Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9. Physical and Chemical Properties	
Appearance	Clear, colorless liquid
Odour	Strong pungent, irritating ammonia odour
Odour Threshold	No data.
pH	13.8 (29 % solution).
Flash Point	No data
Boiling Point and Boiling Range	38 - 100°C (100 – 212 °F) at 1,013 hPa (760 mmHg)
Melting Point and Freezing Point	-37.5 °C; No data
Evaporation Rate	No data.
Flammability (solid, gas)	Not applicable
Upper and Lower Flammability or Explosive Limits	Not available
Vapour Pressure	3.75 psi @ 20 °C
Vapour Density	0.6
Relative Density	0.9
Solubility	Soluble
Partition co-efficient, n-Octanol/Water	Not available
Auto-ignition Temperature	651 °C
Decomposition Temperature	Not available
Viscosity	Not available

Section 10. Stability and Reactivity	
Reactivity	None known
Chemical Stability	Stable
Possibility of Hazardous Reactions	Will not occur
Conditions to Avoid	Direct sunlight. Excessive heat, open flames, and all ignition sources.

Incompatible Materials	Acids. Acrolein. Dimethyl sulphate. Halogens. Propylene oxide. Nitromethane. Silver oxide. Hydroreactive materials (eg. Oleum). Silver permanganate.
Hazardous Decomposition Products	Not expected to decompose under normal conditions of use.

Section 11. Toxicological Information			
Component Toxicity	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ammonium hydroxide	350mg/kg (Rat)		5.1 mg/L (1h) Rat 2000 ppm (4h) Rat
Likely Routes of Exposure			
Skin:	May cause burns and irritation.		
Eyes:	Vapours cause pain and irritation to the eyes. Splashes may cause severe irritation and possible eye damage. Eye contact may cause blindness.		
Inhalation:	May be fatal if inhaled. Inhalation of mists and vapours may be irritating to the respiratory tract. Brief exposure to 5000 ppm can be fatal. May aggravate existing respiratory conditions.		
Ingestion:	May be fatal if swallowed. Corrosive. May cause severe pain in the mouth, chest and abdomen, leading to cough, vomiting and collapse. Gastric or oesophageal perforation may occur and lung irritation or oedema may occur as a delayed effect. Ingestion of as little as 3 – 4 ml may be fatal.		
Acute Toxicity Estimates (ATE)	Not available		
STOT (Specific Target Organ Toxicity) – Single Exposure	Causes burn by all routes of exposure.		
Aspiration Toxicity	Not available		
STOT (Specific Target Organ Toxicity) – Repeated Exposure	Not available		
Skin Corrosion / Irritation	Causes burns		
Serious Eye Damage / Irritation	Causes burns		
Respiratory or Skin Sensitization	Not available		
Carcinogenicity	Not classified		
Reproductive Toxicity			
- Sexual Function and Fertility	Not available		
- Development of Offspring	Not available		
- Effects on or via Lactation	Not available		

Germ Cell Mutagenicity	Not available
Interactive Effects	Not available
Other Information	None

Section 12. Ecological Information	
Ecotoxicity	Ammonium hydroxide LC50: 5.9 mg/L (Pimephales promelas) 96 hr static
Persistence and Degradability	Will not persist
Bioacumulative Potential	This material is not expected to bioaccumulate.
Biodegradability	No data
Mobility in Soil	Not available
Special Remarks	This material is expected to be toxic to aquatic life.
Other Adverse Effects	None known

Section 13. Disposal Considerations	
Disposal Considerations	Dispose of contents/container in accordance with local regulations.

Section 14. Transport Information	
UN Number	2672
UN Proper Shipping Name	Ammonia Solution
Transport Hazard Class(es)	8
Packaging Group	III
Environmental Hazards	Not applicable
Bulk Transport	Not applicable
Special Precaution	Not applicable
DOT Erg#	154

Section 15. Regulatory Information	
Canada – DSL Inventory	All components of this product are either on the Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL) or exempt
TSCA	All components of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt
Additional Information	None

Section 16. Other Information

NFPA Rating Health-2/ Flammability-0/Reactivity-1/Special Hazard-Not applicable

HMIS Rating Health-2/Flammability-0/Reactivity-1/Personal Protection-See Section 8.

SDS Prepared by: Chemfax Products Ltd., Technical Department

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