


Section 1. Identification		
<b>Product Identifier</b>	<b>Ammonium Hydroxide 30%</b>	<b>Version: 7</b> <b>Effective Date: 10 July, 2017</b>
<b>Other Means Of Identification</b>	Liquid ammonia	
<b>Initial Supplier Identifier</b>	Chemfax Products Ltd. 11444 – 42 Street SE Calgary, AB T2C 5C4 Tel: 403-287-2055	
<b>Recommended Use and Restrictions On Use</b>	General Chemical, degreaser, household cleaner. No restrictions.	
<b>Product Family</b>	Amine	
<b>24 Hour Emergency</b>	Canutec (613) 996-6666	

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

<b>Precautionary Response Statements</b>	<p>IF SWALLOWED: Rinse mouth. Do not induce vomiting. Seek medical attention.</p> <p>IF ON SKIN (or hair): Immediately remove all contaminated clothing. Rinse skin with water. Launder contaminated clothing before reuse.</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 seek medical attention.</p> <p>Collect spillage</p>
<b>Precautionary Storage Statement</b>	Store locked up
<b>Precautionary Disposal Statement</b>	Dispose of in accordance with local, provincial or national regulations
<b>Other Hazards</b>	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	
<b>Eye Contact</b>	Flush eyes with water for 15 minutes. Seek medical attention.
<b>Skin Contact</b>	Flush area with water. If irritation persists, seek medical attention. Launder clothing before reuse.
<b>Inhalation</b>	Remove victim to fresh air. If there is difficulty breathing, seek immediate medical attention.
<b>Ingestion</b>	Rinse mouth. Do not induce vomiting, seek immediate medical attention.
<b>Most Important Symptoms and Effects, Acute and Delayed</b>	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.
<b>Immediate Medical Attention and Specific Treatment</b>	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	
<b>Suitable and Unsuitable Extinguishing Media</b>	Use extinguishing media suitable for surrounding fire.
<b>Hazardous Combustion Products</b>	Ammonia and oxides of nitrogen.
<b>Specific Hazards Arising From the Product</b>	Keep product and empty container away from heat and sources of ignition. Thermal decomposition can lead to release of irritating gases and vapors.
<b>Special Protective Equipment and Precautions for Fire-Fighters</b>	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	
<b>Personal Precautions, Protective Equipment, and Emergency Procedures</b>	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.
<b>Environmental Precautions</b>	Do not allow spilt material to enter sewers and surface watercourses.
<b>Methods and Materials for Containment and Clean-up</b>	Ventilate area. Isolate hazard area and restrict access. Pump up spilled material. Residues can be neutralized with a dilute acid such as acetic acid. Neutralized waste should be placed in a suitable container for disposal.

Section 7. Handling and Storage	
<b>Precautions for Safe Handling</b>	Handle with care. Keep containers closed and stored locked up, when not in use. Empty containers may contain residues.
<b>Conditions for Safe Storage</b>	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				
<b>Control Parameters</b>	<b>TWA: 8 Hr</b>	<b>STEL: 15 min</b>	<b>Ceiling</b>	<b>IDLH *</b>
Ammonium hydroxide	25 ppm ACGIH	35 ppm ACGIH		300 ppm
* Immediately Dangerous to Life and Health				
<b>Exposure Controls</b>	Local exhaust ventilation			

# Safety Data Sheet

<b>Appropriate Engineering Controls</b>	Use only under good ventilation. Ensure that eyewash stations and safety showers are close to the workstation location.
<b>Individual Protective Measures</b>	If exposure limits are exceeded:
<b>Eye and Face Protection</b>	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.
<b>Skin Protection</b>	Wear appropriate protective gloves and clothing to prevent skin exposure.
<b>Respiratory Protection</b>	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.

<b>Section 9. Physical and Chemical Properties</b>	
<b>Appearance</b>	Clear, colorless liquid
<b>Odour</b>	Strong pungent, irritating ammonia odour
<b>Odour Threshold</b>	No data.
<b>pH</b>	13.8 (29 % solution).
<b>Flash Point</b>	No data
<b>Boiling Point and Boiling Range</b>	38 - 100°C (100 – 212 °F) at 101.325 kPa (760 mmHg)
<b>Melting Point and Freezing Point</b>	-37.5 °C; No data
<b>Evaporation Rate</b>	No data.
<b>Flammability (solid, gas)</b>	Not applicable
<b>Upper and Lower Flammability or Explosive Limits</b>	Not available
<b>Vapour Pressure</b>	3.75 psi @ 20 °C
<b>Vapour Density</b>	0.6
<b>Relative Density</b>	0.9
<b>Solubility</b>	Soluble
<b>Partition co-efficient, n-Octanol/Water</b>	Not available
<b>Auto-ignition Temperature</b>	651 °C
<b>Decomposition Temperature</b>	Not available
<b>Viscosity</b>	Not available

<b>Section 10. Stability and Reactivity</b>	
<b>Reactivity</b>	None known
<b>Chemical Stability</b>	Stable

<b>Possibility of Hazardous Reactions</b>	Will not occur
<b>Conditions to Avoid</b>	Direct sunlight. Excessive heat, open flames, and all ignition sources.
<b>Incompatible Materials</b>	Acids, acrolein, dimethyl sulphate, halogens, propylene oxide, nitromethane, silver oxide, hydroreactive materials (e.g. Oleum), and silver permanganate.
<b>Hazardous Decomposition Products</b>	Not expected to decompose under normal conditions of use.

<b>Section 11. Toxicological Information</b>			
<b>Component Toxicity</b>	<b>LD50 Oral</b>	<b>LD50 Dermal</b>	<b>LC50 Inhalation</b>
Ammonium hydroxide	350mg/kg (Rat)		5.1 mg/L (1h) Rat 2000 ppm (4h) Rat
<b>Likely Routes of Exposure</b>			
<b>Skin:</b>	May cause burns and irritation.		
<b>Eyes:</b>	Vapours cause pain and irritation to the eyes. Splashes may cause severe irritation and possible eye damage. Eye contact may cause blindness.		
<b>Inhalation:</b>	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.		
<b>Ingestion:</b>	May be fatal if swallowed. Corrosive. May cause severe pain in the mouth, chest and abdomen, leading to coughing, 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.		
<b>Acute Toxicity Estimates (ATE)</b>	Not available		
<b>STOT (Specific Target Organ Toxicity) – Single Exposure</b>	Causes burn by all routes of exposure.		
<b>Aspiration Toxicity</b>	Not available		
<b>STOT (Specific Target Organ Toxicity) – Repeated Exposure</b>	Not available		
<b>Skin Corrosion / Irritation</b>	Causes burns		
<b>Serious Eye Damage / Irritation</b>	Causes burns		
<b>Respiratory or Skin Sensitization</b>	Not available		
<b>Carcinogenicity</b>	Not classified		
<b>Reproductive Toxicity</b>			

- <b>Sexual Function and Fertility</b>	Not available
- <b>Development of Offspring</b>	Not available
- <b>Effects on or via Lactation</b>	Not available
<b>Germ Cell Mutagenicity</b>	Not available
<b>Interactive Effects</b>	Not available
<b>Other Information</b>	None

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

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

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

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

<b>Section 16. Other Information</b>	
<b>NFPA Rating</b>	Health-2/ Flammability-0/Reactivity-1/Special Hazard-Not applicable
<b>HMIS Rating</b>	Health-2/Flammability-0/Reactivity-1/Personal Protection-See Section 8.
<b>SDS Prepared by:</b>	Chemfax Products Ltd., Technical Department
<b>Revision Date:</b>	7 February, 2016
<b>Date of Latest Revision:</b>	10 July, 2017
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