



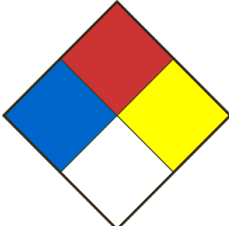
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SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier AMMONIUM HYDROXIDE (0.02M)		Product Use Laboratory use	
Chemical formula NH ₄ OH		Product code AS-0992	Molar weight 35,05
Chemical name / Commercial name / Synonymous Ammoniaque, Ammonia water, Aqueous ammonia, Ammoniac 0.02M			
Supplier's name Laboratoire MAT		Address-Street 610, Adanac Street	
City Québec		Province Québec	
Postal code G1C 7B7	Internet www.labmat.com	Phone number 418-660-8666 / 800-890-8666	
Emergency phone	CANUTEC: 613-996-6666	CENTRE ANTI-POISON DU QUÉBEC 800-463-5060	
Date SDS 11/28/2018	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Not a hazardous substance according to WHMIS 2015
Other dangers	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)
	Health 1 Fire 0 Reactivity 0 Special danger

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Hydroxyde d'ammonium	1336-21-6	0.1
Eau	7732-18-5	Balance

SECTION 04 - FIRST AID MEASURES

Eye contact	If irritation persists, seek medical attention.
Skin contact	Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.
Inhalation	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Ingestion	If the person is conscious, give water to drink. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician.
Most important symptoms and effects (acute and delayed)	Ref. section 11.
Immediate medical attention and special treatment, if necessary	In case of medical consultation, keep this sheet available.
General advice	Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance.

SECTION 05 - FIREFIGHTING MEASURES

Flammability	No
Ignition conditions	Not flammable or combustible.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	Not applicable.
Hazardous combustion / decomposition products	Hazardous decomposition products formed under fire conditions. - nitrogen oxides (NO _x).
Special fire and explosion hazards	May react violently with incompatible products (Ref Section 10).
Special protective equipment and precautions for firefighters	Discard incompatible substances if this can be done without risk. Firefighters should be equipped with standard protective equipment, fireproof clothing, face mask, gloves, protective boots and, where appropriate, self-contained breathing apparatus.

SECTION 06 - ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning up / Personnel precautions, protective equipment	Evacuate personnel to safe areas. Absorb the product with sand or vermiculite. Dilute residues with water, clean and rinse. Ensure a good ventilation of the premises. Dispose of residues in a container for disposal of hazardous materials. When handling, wear suitable safety equipment. Use breathing apparatus if necessary. Avoid breathing vapours, mist or gas.
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SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Store in a well-ventilated area. Store in a cool, dry place. Over time, the pressure can increase and inflate the containers.
Methods of handling	Release of toxic ammonia vapor. Ensure good ventilation. Use a hood preferably. Wear personal protective equipment when handling. Always ensure good ventilation. Transport according to TDG (ref Section 14) Avoid inhalation of vapour or mist. Always open containers slowly to allow any excess pressure to vent.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace control parameters

Composants	No.-CAS	Value	Control parameters	Basis
Ammoniac, anhydrous	7664-41-7	VEMP	25 ppm 17 mg/m ³	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		VECD	35 ppm 24 mg/m ³	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWA	25 ppm 17 mg/m ³	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		STEL	35 ppm 24 mg/m ³	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWA	25 ppm	Canada. British Columbia OEL
		STEL	35 ppm	Canada. British Columbia OEL

Based on ammonia, anhydrous

Data source	Sigma-Aldrich (Millipore Sigma)
Ventilation	Fan.
Respiratory	If the permissible levels are exceeded, use a mechanical filter / cartridge against NIOSH vapors or a respirator with air supply.
Gloves	Handle with gloves.
Eyes	Safety goggles with safety shutters.
Shoes	Safety shoes.
Clothing	Labcoat.
Engineering control	Have safety showers and eyewash stations in the workplace in case of an emergency and a ventilation system to maintain the level of concentrations in the air below the exposure limit values.

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid.
Appearance	Liquide incolore-
Odour	Très légère odeur d'ammoniac.
Odour threshold	Data not available
pH	pH= 11.6 (1.0 N solution); 11.1 (0.1 N solution); 10.6 (0.01 N solution).
Melting point / Freezing point	Data not available
Initial boiling point	Data not available
Boiling range	Data not available
Flash point	Data not available
Evaporation rate	Data not available
Flammability	No
Lower flammable / Explosive limit	Data not available
Upper flammable / Explosive limit	Data not available
Vapour pressure	Data not available
Solubility	Miscible avec l'eau.
Vapour density	Data not available
Relative density	1.00g/ml
Partition coefficient water/n-octanol	Data not available
Auto-ignition temperature	Data not available
Decomposition temperature	Data not available
Viscosity	Data not available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Non-reactive under normal conditions.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Stable under normal conditions.
Conditions of instability (Including sensitivity to shock / static discharge / vibration)	Avoid contact with incompatible materials and extreme temperatures.
Incompatible material	When pure, the product reacts with the following products: Acids, strong oxidizing agents, acrolein, iodine, aluminum, silver, bromine, calcium hypochlorite, chlorine, copper, and its alloys, dimethyl sulphate, iron galvanized, iodine, zinc, mercury, silver salts, nitromethane, gold, bleaches, propylene oxide, heat and moisture.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. - nitrogen oxides (NO _x).

SECTION 11 - TOXICOLOGICAL INFORMATION

AMMONIUM HYDROXIDE

Routes of exposure	Inhalation and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Causes eye burns.
- Skin	May be harmful if absorbed through skin. Causes skin burns.
- Inhalation	May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Acute toxicity (Ingestion)	Burns and ulcerations of the mouth, throat and esophagus. Dysphagia, abdominal pain, cramps, diarrhea, hematemesis, headache, dizziness, possible perforation of the stomach and esophagus, stenosis, tremors, convulsions, stupor, circulatory collapse, unconsciousness, coma and can lead to death .
Chronic exposure effects / symptoms	Burning sensation, dermatitis, conjunctivitis, nervous disorders, eye and lung damage, chest pain, cough, dyspnoea, laryngitis, headache, dizziness, confusion, irritability, tearing, choking, sweating, salivation, tremors, fatigue loss of weight and loss of appetite, convulsions, nausea and vomiting.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 350 mg/kg. (NH3) LD50 Dermal - Data not available.
CL50 (specify species and route of entry)	LC50 Inhalation - Rat - 4h - 2000 ppm (NH3)

SUMMARY

Acute exposure effects / Symptoms:	By exposure routes below.
Ingestion	To our knowledge, the product has not been fully evaluated
Inhalation	To our knowledge, the product has not been fully evaluated
Skin	To our knowledge, the product has not been fully evaluated
Eyes	To our knowledge, the product has not been fully evaluated
Chronic exposure effects / Symptoms:	To our knowledge, the product has not been fully evaluated
ETA Mix (Estimated Acute Toxicity)	LD50 Oral:>5000 mg/kg (NH3) - Rat LD50 Dermal: Data not available LC50 Inhalation : >100000 ppm 4h (NH3) - Rat

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	Data not available.
Persistence and degradability	Data not available.
Bioaccumulative potential	Data not available.
Mobility in soil	Data not available.
Other adverse effects	Very toxic to aquatic life. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Method	Dispose of contents / container in accordance with local / regional / national / international regulations / or contact a specialist waste disposal company.
Contaminated Packaging	Dispose of as unused product.

SECTION 14 - TRANSPORT INFORMATION

UN Number	N/R
UN Proper shipping name	
Transport hazard class(es)	
Packing group	
Limited quantity index	
ERAP Index	
Special precautions	

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Not a hazardous substance according to WHMIS 2015
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SECTION 16 - OTHER INFORMATION

Further information

The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. It does not represent any guarantee of the properties of the product. Laboratoire MAT Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

Last Update: 11/28/2018