



SAFETY DATA SHEET

1 – PRODUCT AND COMPANY IDENTIFICATION

Product Name: **AMMONIUM CHLORIDE**

Product Code: A-4510

Product use: For laboratory or industrial use only

Supplier: Cochimbec Inc.
8561 chemin Dalton
Town of Mount-Royal, Quebec
H4T 1V5 CANADA

Telephone: 514-990-1935
Emergency Telephone: (CANUTEC): 613-996-6666

2 – HAZARDS IDENTIFICATION

GHS Classification: Acute toxicity (Oral category 4)
Eye irritation (Category 2A)
Acute aquatic toxicity (Category 2)



Signal word:		Warning
Hazard statement:	H302	Harmful if swallowed.
	H319	Causes serious eye irritation.
	H401	Toxic to aquatic life
Precautionary statement:	P260	Do not breath dust / fume / gas / mist / vapours / spray.
	P264	Wash face, hands and any exposed skin thoroughly after handling.
	P270	Do not eat, drink or smoke when using this product.
	P271	Use only outdoors or in a well-ventilated area.
	P280	Wear protective eye protection / face protection.
	P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
	P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P312	Call a POISON CENTER / Doctor if you feel unwell.

	P330	Rinse mouth.
	P403	Store in a well-ventilated place.
	P233	Keep container tightly closed.
	P405	Store locked up.
	P501	Dispose of contents / container to an approved waste disposal plant....
Other hazards:	Inhalation:	May be harmful if inhaled. Irritating to mucous membranes and upper respiratory tract.
	Eyes:	Causes eye irritation.
	Skin:	Causes irritation on open wound.
	Ingestion:	Harmful if swallowed.

3 – COMPOSITION / INFORMATION ON INGREDIENTS

Synonyms: Sal ammoniac, Salmiac

INGREDIENT	Concentration	CAS No.	EC No.	Index No.
AMMONIUM CHLORIDE	95-100 %	12125-02-9	235-186-4	

4 – FIRST AID MEASURES

Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. If victim is not breathing, give artificial respiration and call for medical assistance.
Skin contact:	Wash with plenty of water. Consult a physician if irritation persists.
Eye contact:	Rinse immediately with water for several minutes, also under eyelids. If eye irritation persists get medical advice/attention.
Ingestion:	Rinse mouth with water then drink plenty of water. Call a POISON CENTER or doctor if you feel unwell.
Most important symptoms / effects	None expected.

5 – FIRE-FIGHTING MEASURES

Extinguishing media:	Water spray.
Combustion Exposure Hazards:	Hazardous decomposition products formed under fire conditions: Hydrochloric acid and Ammonia.
Fire-Fighting equipment and precaution:	Wear a positive-pressure self-contained breathing apparatus if necessary. Wear chemical resistant clothing as recommended by clothing manufacturer.
Sensitivity to mechanical impact:	Not sensitive.
Sensitivity to static discharge:	Not sensitive.

NFPA	Risk	HEALTH	FLAMMABILITY	REACTIVITY	HAZARDS
0=Low	4=High	2	0	0	

6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Use personal protective equipment. Use in a properly ventilated area. Avoid inhaling vapour, gas or dust. Wash hands after use.
Environmental Precautions:	Prevent further leakage or spillage using personal protection. Avoid product entering into drains.
Method & Material for containment and cleaning up:	Sweep up spillage without creating dust. Collect in suitable container for disposal. Keep closed.

7 – HANDLING AND STORAGE

Precautions for safe handling:	Wear personal protective equipment. Do not breathe dust / fume / gas / mist / vapours / spray. Do not get on skin, eyes and clothing.
Conditions for Safe Storage:	Store in a cool, dry place. Keep container tightly closed in a well-ventilated area.

8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

COMPONENTS WITH WORKPLACE CONTROL PARAMETERS

COMPONENT	CAS-No	VALUE	CONTROL PARAMETERS	BASIS
Ammonium Chloride	12125-02-9	TWA	10 mg/m ³	Canada, Alberta, B.C., OEL
		STEL	20 mg/m ³	Canada, Alberta, B.C., OEL
		TWAEV	10 mg/m ³	Québec
		STEL	20 mg/m ³	USA. ACGIH Threshold Limits Values (TLV)
		TWA	10 mg/m ³	USA. ACGIH Threshold Limits Values (TLV)



Eye Protection:	Safety glasses
Hand Protection:	Use chemical resistant gloves.
Body Protection:	Use impervious apron or body suit.
Respiratory Protection:	For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. If the respirator is the sole means of protection, use a full-face air respirator. Use NIOSH (US) or CEN (EU) approved respirators.
Engineering Controls:	Ensure adequate ventilation.

9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Solid.	Auto ignition temperature:	N / D
Color:	White	Upper Explosion Limit:	N / D
Odour:	Almost odorless	Lower Explosion Limit:	N / D
Odour threshold::	N / D	Vapour pressure:	1.3 hPa @ 160 °C
pH:	5.0 @ 25 °C (10% sol)	Vapour density: (air = 1)	N / D
Melting point:	340°C	Relative density	N / A
Boiling point:	N / D	Water solubility:	Completely soluble
Boiling range:	N / D	Decomposition temperature:	350°C
Density	0.5 g / cc	Refractive Index:	N / A
Flash point:	N / A	Viscosity:	N / A
Evaporation rate: (n-Butyl Acetate = 1)	N / A	Partition coefficient: n-octanol / water	N / D

10 – STABILITY AND REACTIVITY

Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	N / D
Conditions to avoid:	Exposure to humidity may affect product quality.
Incompatible materials:	Strong oxidizing agents. Strong bases and strong acids.
Hazardous decomposition products:	Hazardous decomposition products formed under fire conditions: Nitrogen oxides, Hydrochloric acid.

11 – TOXICOLOGICAL INFORMATION

COMPONENTS	LD ₅₀ ORAL	LD ₅₀ DERMAL	LC ₅₀ INHALATION
Ammonium Chloride	1,510 mg/kg (rat)	> 2,000 mg/kg (rabbit)	
Skin Corrosion / irritation	Rabbit – No skin irritation – 24 h		
Serious eye damage / eye irritation	Rabbit – Eye irritation		
Respiratory or skin sensitisation	Maximisation test – Guinea pig: Negative		
Germ cell Mutagenicity	HGPRT: Negative		
Carcinogenicity	This product does not contain any compounds listed by NTP, IARC, ACGIH or EPA classified as a carcinogen.		
Reproductive toxicity	No data available		
Teratogenicity	No data available		
Aspiration hazard	No data available		
Symptoms of Exposure	Single exposure: Respiratory system Repeated exposure: Kidney, heart, spleen, blood.		
Synergistic effects	No data available		
Addition information	Systemic effects: after the uptake of very large quantities: drop in blood pressure, collapse, CNS disorders, spasms, narcotic conditions, respiratory paralysis, haemolysis. Other dangerous properties can not be excluded.		

12 – ECOLOGICAL INFORMATION

COMPONENTS	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates	Toxicity to Water Flea
Ammonium Chloride	LC ₅₀ – Oncorhynchus mykiss (rainbow trout) – 42.91 mg/l – 96 h. LC ₅₀ – Cyprinus carpio – 209 mg/l – 96 h.	EC ₅₀ – Daphnia Magna (Water flea) – >100 mg/l – 48 h.	EC ₅₀ 202 mg/L - 24 h
Persistence and degradability	The methods for determining the biological degradability are not applicable to inorganic substances.		
Bioaccumulative potential	No data available		
Mobility in soil	Expected to be mobile in soil due to its solubility in water.		
PBT and vPvB assessment	No data available		
Other adverse effects	No data available		

13 – DISPOSAL CONSIDERATIONS

Product	Offer surplus to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Ensure proper disposal compliance with authorities before disposal.
Contaminated clothing	Wash before reusing clothes.
Contaminated packaging	Dispose as unused product above. Dispose of packaging in a safe manner to comply with local, state and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

14 – TRANSPORT INFORMATION

	TDG	IMDG	IATA
Shipping Name:	Not regulated	Not regulated	Not regulated

15 – REGULATORY INFORMATION

US Regulations	SDS complies with OSHA's Hazardous Products Regulations (HPR).
Canada Classification	SDS complies with the Canadian Standard Part 4, Schedule 1 & 2 of the Hazardous Products Regulations (HPR).
International	N / D

16 – OTHER INFORMATION

Information on the preparation of SDS:	<p>Prepared by Cochimbec Inc. Safety Personnel Aug. 25, 2018 Revision 0 I.C. 1,2,7</p>
Abbreviations:	<p>ACGIH = American Conference of Governmental Industrial Hygienists ASTM = American Society for Testing and Materials BCF = Bioconcentration Factor CAS = Chemical Abstract Services CCOHS = Canadian Center for Occupational Health & Safety CEN (EU) = Comité Européen de Normalisation CERCLA = Comprehensive Environmental Response Compensation & Liability Act CFR = Code of Federal Regulations CMR = Carcinogenic-mutagenic-toxic for reproduction CPR = Controlled Products Regulations DIN = German Institute for Standardisation DOT = Department of Transport EC₅₀ = Half maximal effect concentration EINECS = European Inventory of Existing Commercial Chemical Substances GHS = Global Harmonization System GLP = Good Laboratory practice GMO = Genetic Modified Organism IARC = International Agency for research on Cancer IATA = International Air Transport Association ISO = International Organisation for Standardisation IDLH = Immediate danger to life and health IMDG = International Maritime Dangerous Goods LC₅₀ = Lethal concentration causing 50% death LD₅₀ = Lethal dose causing 50% death LOAEL = Lowest Observed Adverse Effect Level LOEL = Lowest Observed Effect Level N/A = Not Applicable N/D = No Data N/E = Not Established NFPA = National Fire Protection Association NIOSH = National Institute for Occupational Safety & Health NTP = National Toxicology Program OECD = Organisation for Economic Co-operation & Development OEL = Occupational exposure limit OHSC = Occupational health & safety council (committee) OSHA = Occupational Safety & Health Administration PBT = Persistent, Bioaccumulation, Toxic PEL = Permissible Exposure Limit RCRA = Resource Conservation & Recovery Act RTECS = Registry of Toxic Effects of Chemical Substances SARA = Species at Risk Act</p>

	<p> STEL = Short term exposure limit STEV = Short term exposure value STOT = Specific Target Organ Toxicity TDG = Transport of Dangerous Goods TLV = Threshold limit value TMD = Transport de Matières Dangereuses TSCA = Toxic Substance Control Act TWA = Time weighted Average TWAEV = Time weighted average exposure value UN = United Nations vPvB = very Persistent and very Bioaccumulative VOC = Volatile Organic Compounds WEEL = Workplace Environment Exposure Limit WHO = World Health Organisation WHMIS = Workplace Hazardous Material Information System W/V = Weight / Volume W/W = Weight / Weight </p>
Disclaimer:	<p> Cochimbec Inc. expressly disclaims all express or implied warranties of merchantability and fitness for a particular purpose, with respect to the product or information provided herein, and shall under no circumstances be liable for incidental or consequential damages. The information herein is provided in good faith and believed to be correct as of the date shown above but does not purport to be all inclusive and shall be used only as a guide. We also urge each user of this product, to study this SDS carefully and become aware of and understand the hazards associated with this product. Since conditions for use of the product are not under the control of the manufacturer, it is the user's responsibility to determine the conditions necessary for the safe use of this product. This information relates only to the product designated herein, and does not relate to its use in combination with other material or in any other process. </p> <p> Do not use ingredient information and / or ingredient percentages in this SDS as a product specification. </p>

End of Safety Data Sheet