



Safety Data Sheet

Aqua Ammonia 28-30%



1. Identification

Product identifier	Aqua Ammonia 28-30%
Product code	N/A
Other means of identification	N.Av.
Recommended use of the chemical and restrictions on use	Fertilizer, Neutralizing Agent in Industry, Household Cleaners. Not recommended for any other use not detailed on product data sheet or label.
Manufacturer	Sylvite 3221 North Service Road, Suite 200 Burlington, Ontario Canada L7N 3G2 Tel. 1-800-229-0602 Fax 905-315-2083 https://www.sylvite.ca/
Emergency phone number	Quebec Poison Center: 1-800-463-5060 (toll free in QC) Ontario and Manitoba Poison Centres: 1-800-268-9017 or 419-813-5900 BC Drug and Poison Information Centre: 1-800-567-8911 (toll free in BC) or contact your local poison control centre in the state/province or territory where you live. Canutec: 613-996-6666 or *666 on a cellular phone (for transportation)

2. Hazard identification

Summary	Avoid all contact with the skin, eyes and clothing. Do not breathe vapours, mists or aerosols. Do not ingest. If medical advice is needed, have this SDS or label at hand. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved.
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WHMIS 2015/GHS/OSHA HCS 2012



Skin corrosion/irritation (Category 1)
Serious eye damage/eye irritation (Category 1)
Health hazards not otherwise classified (HHNOC)

DANGER

H314: Causes severe skin burns and eye damage

H3xx: May cause burns and serious injury to the respiratory tract

H400: Very toxic to aquatic life

P260: Do not breathe vapours and spray.

P264: Wash face, hands and any exposed skin thoroughly after handling.

P271: Use only outdoors or in a well-ventilated area.

P273: Avoid release to the environment.

P280: Wear protective gloves, protective clothing and eye protection.

P301+330+331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+361+353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P363: Wash contaminated clothing before reuse.

P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P310: Immediately call a POISON CENTER or a doctor.

P391: Collect spillage.

P403+233: Store in a well ventilated place. Keep container tightly closed.

P405: Store locked up.

P501: Dispose of contents and container to a licensed chemical disposal agency in accordance with local, regional and national regulations.

Other hazards which do not result in classification

Acute hazard to the aquatic environment (Category 1).

3. Composition/information on ingredients

Common name	CAS	Weight % content
Water	7732-18-5	70 - 72 %
Ammonia	7664-41-7	28 - 30 %

4. First-aid measures

Inhalation	Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen by trained personnel. Do not use mouth-to-mouth resuscitation unless you use a buccal protective device. Seek medical attention immediately.
Skin contact	Flush with water for at least 15 minutes. Avoid touching eyes with contaminated body parts. Apply wet compresses on burns. Seek medical attention immediately. Wash contaminated clothing before reuse.
Eye contact	IMMEDIATELY flush with plenty of water. Remove contact lenses if easy to do. Flush with water for at least 15 minutes. Hold eyelids apart to rinse properly. Seek medical attention immediately. Have an ophthalmologist make an evaluation of eye injury.
Ingestion	DO NOT induce vomiting, unless recommended by medical personnel. Never give anything by mouth if victim is unconscious or convulsing. If victim is conscious wash out mouth with water and give 1-2 glasses of water to drink. Seek medical attention or contact a Poison Centre immediately.
Other	No information available.
Symptoms	May cause skin burns and eye damage. May cause severe irritation and burns to the respiratory tract.
Notes to the physician	For severe exposures, monitor for delayed onset of pulmonary edema. Provide medical observation for at least 48 hours after the accident. For severe exposure, immediately seek medical attention and monitor breathing and treat for shock.

5. Fire-fighting measures

Suitable extinguishing media	Dry chemicals, water spray, chemical foam, carbon dioxide (CO ₂).
Specific hazards arising from the chemical	Contact with oxidizers may cause fire and/or explosion. The risk of fire caused by ammonia is relatively low; it must be brought into contact with materials or a surface having a temperature of 651 °C prior to ignite itself.
Special protective equipment	Firefighters must wear self contained breathing apparatus with full face mask. Firefighting suit may not be efficient against chemicals.
Special protective actions for fire-fighters	Use water spray to cool fire-exposed containers. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Do not touch spilled material. Make sure to wear personal protective equipment mentioned in this Safety Data Sheet.
Environmental precautions	Prevent entry into sewers, closed areas and release to the environment. For a large spill, consult the Department of Environment or the relevant authorities.
Methods and materials for containment and cleaning up	No action shall be taken involving any personal risk or without suitable training. Immediately contact emergency personnel. Restrict access until the complete cleaning of the places. Never advance your work against the wind. Always work with a side or a back wind. Ventilate the area well. Stop leak, if it's possible to do so without risk. Construct barriers (dikes, lagoons) to contain runoff water for recovery, neutralization or disposal. Prevent entry into waterways, sewers, basements or confined areas. Venting downwind may be necessary. Report significant spills to government environmental authorities (Clear language limits at 5L or 5Kg for reports).

7. Handling and storage

Precautions for safe handling	Use only in well ventilated area. Avoid all contact with the skin, eyes and clothing. DO NOT breathe vapors, mists, aerosols and be sure to keep them under the exposure limit values. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved. Keep containers tightly closed when not in use. Keep away from heat and open flame. Do not eat, do not drink and do not smoke during use. Wash hands, forearms and face thoroughly after handling this compound and before eating, drinking or using toiletries. Remove contaminated clothing and wash before reuse.
Conditions for safe storage, including any incompatibilities	Store in accordance with local regulations, in a container clearly labeled and designed for ammonia (usually stainless steel). Keep away from direct sunlight and heat. Store away from oxidizing materials and incompatible materials (see section 10).
Storage temperature	<25°C (77°F)

8. Exposure controls/personal protection

Immediately Dangerous to Life or Health	Ammonia: 300 ppm.																								
Ammonia	<table border="0"> <tr> <td>STEL</td> <td>35 ppm</td> <td></td> <td>ACGIH , BC, ON</td> </tr> <tr> <td></td> <td>35 ppm</td> <td>24 mg/m³</td> <td>RSST</td> </tr> <tr> <td></td> <td>35 ppm</td> <td>27 mg/m³</td> <td>NIOSH</td> </tr> <tr> <td>TWA (8h)</td> <td>25 ppm</td> <td></td> <td>ACGIH , BC, ON</td> </tr> <tr> <td></td> <td>25 ppm</td> <td>17 mg/m³</td> <td>RSST</td> </tr> <tr> <td></td> <td>25 ppm</td> <td>18 mg/m³</td> <td>NIOSH</td> </tr> </table>	STEL	35 ppm		ACGIH , BC, ON		35 ppm	24 mg/m ³	RSST		35 ppm	27 mg/m ³	NIOSH	TWA (8h)	25 ppm		ACGIH , BC, ON		25 ppm	17 mg/m ³	RSST		25 ppm	18 mg/m ³	NIOSH
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Appropriate engineering controls	Provide sufficient mechanical (general and/or local exhaust) to keep the airborne concentrations of gas below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are close to the workstation.																								
Individual protection measures																									
Eye	Wear chemical splash goggles. If risk of contact with eyes or the face, wear a face shield. If respiratory hazards exist, a full face respirator may be required instead.																								
Hands	Chemical-resistant, impervious gloves should be worn at all times when handling this chemical product. Wear butyl rubber or nitrile gloves. Before using, user should confirm impermeability. Discard gloves with tears, pinholes, or signs of wear. Gloves must only be worn on clean hands. Wash gloves with water before removing them. After using gloves, hands should be washed and dried thoroughly.																								
Skin																									

Personal protective equipment for the body should be selected based on the task being performed and the risks involved. Wear normal work clothing covering arms and legs as required by employer code. Wear an apron or long-sleeve protective coverall suit.

Respiratory

Where the conditions in the workplace require a respirator, it is necessary to follow a respiratory protection program. Moreover, respiratory protection equipment (RPE) must be selected, fitted, maintained and inspected in accordance with regulations and standard 29 CFR 1910.134 (OSHA), ANSI Z88.2 or CSA Z 94.11 (Canada) and approved by NIOSH/MSHA. Wear a full-face air-purifying respirator equipped with ammonia cartridges for concentrations up to 250 PPM of ammonia. In case of insufficient ventilation or in confined or enclosed space, wear any self-contained breathing apparatus that has a full face piece and is operated in a pressure-demand or other positive-pressure mode.

Feet

Wear rubber boots as needed.



Chemical Coverall Suit



Goggles



Face shield



Nitrile gloves

9. Physical and chemical properties

Physical state	Liquid	Flammability	Non-flammable
Colour	Colourless	Flammability limits	16 to 25%
Odour		Flash point	N/Ap.
Odour threshold	2 to 5 ppm	Auto-ignition temperature	651 °C (1203.8 °F)
pH	12	Sensibility to electrostatic charges	No
Melting point	-90 to -37 °C (-130 to -34.6 °F)	Sensibility to sparks and/or friction	No
Freezing point	-90 to -37 °C (-130 to -34.6 °F)	Vapour density	0.6 (Air = 1)
Boiling point	23 to 48 °C (73.4 to 118.4 °F)	Relative density	N/Av. (Water = 1)
Solubility	Fully soluble in water.	Partition coefficient n-octanol/water	N/Av.
Evaporation rate	N/Av.	Decomposition temperature	N/Av.
Vapour pressure	25.86 to 75.84kPa (194 to 568.8 mm Hg) @ 15 °C (59 °F)	Viscosity	N/Av.
Percent Volatile	100%	Molecular mass	N/Av.

N/Av.: Not Available N/Ap.: Not Applicable Und.: Undetermined N/E: Not Established

10. Stability and reactivity

Reactivity	The material will attack copper, tin, zinc and their alloys; some forms of rubber, plastics and coatings. Reacts with acids to produce heat. Contact with oxidizers may cause fire and/or explosion.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions (including polymerizations)	A dangerous reaction will not occur.

Conditions to avoid	Avoid contact with incompatible materials. Avoid heat, flame and sparks. Avoid temperatures over 49 °C.
Incompatible materials	Strong oxidants, halogens, the supporting combustion gas such as chlorine, fluorine, nitric oxide, nitrous oxide, nitrogen tetroxide, oxygen and compressed air, strong acids (sulfuric acid, hydrochloric acid).
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information

Numerical measures of toxicity	Ammonia Ingestion 350 mg/kg Rat LD50 Inhalation 2000 ppm/4h Rat LC50	
Likely routes of exposure	Skin, eyes, inhalation.	
Delayed, immediate and chronic effects	Eye contact	May cause severe eye irritation or eye damage. The severity of symptoms may vary depending on exposure conditions.
	Skin contact	May cause severe skin irritation and burns. Skin Irritation/Corrosion, Rabbit : 20% aqueous ammonia solution was applied on the skin for 5 min; Corrosive. Severity is generally determined by concentration of solution and duration of contact.
	Inhalation	May cause severe irritation and burns to the respiratory tract. The severity of symptoms may vary depending on exposure conditions.
	Ingestion	May cause burns to the mouth, to the throat and to the stomach.
	Respiratory or skin sensitization	Ingredients present at levels greater than or equal to 0.1% of this product are not skin or respiratory sensitizers.
	IARC/NTP Classification	No ingredients listed.
	Carcinogenicity	Ingredients present at levels greater than or equal to 0.1% of this product are not listed as a carcinogen by IARC, ACGIH, NIOSH, NTP or OSHA.
	Mutagenicity	Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause mutagenic effects.
	Reproductive toxicity	Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause reproduction effects.
	Specific target organ toxicity - single exposure	Respiratory system.
	Specific target organ toxicity - repeated exposure	No target organ is listed.
Interactive effects	No information available.	
Other information	No information available for this product.	

12. Ecological information

Ecological toxicity	Fish - Fathead minnow, Pimephales promelas - fresh water	LC50	0.24-3.44 mg NH3 gas/L; 96hr (OECD SIDS)
	Fish - Bluegill (Lepomis macrochirus), fresh water	LC50	0.26-2.97 mg NH3 gas/L; 96hr (OECD SIDS)
	Fish - Oncorhynchus mykiss - Rainbow trout	LC50	0.16-1.09 mg NH3 gas/L; 96hr (OECD SIDS)
	Aquatic Invertebrate - Crustaceans, Daphnia Magna	EC50	

25 mg NH₃ gas/L; 48hr (pH 8.2)
(OECD SIDS)

Persistence	May persist in the environment.
Degradability	The gas ammonia reacts with ozone, hydroxyl radicals, and atomic oxygen in air. When ammonia is dissolved in water under normal conditions (aerobic), it is rapidly converted to nitrate by nitrification. The pH in water is increased by the presence of ammonium ion, in the form of hydroxide salts. Bacteria convert ammonia into nitrates creating a biochemical oxygen demand (BOD) several days after its introduction into the environment.
Bioaccumulative potential	Ammonia is incorporated into the food chain.
Mobility in soil	Ammonia is mainly present in water and soil as ammonium salts. Only a small amount is in the form of ammonia gas, which can evaporate into the atmosphere. As pH increases, more alkaline soil, the fraction of the ammonia gas increases.
Other adverse effects	Ammonia (gas) is the primary cause of toxicity in aquatic systems. This chemical does not deplete the ozone layer.

13. Disposal considerations

Container	Important! Prevent waste generation. Use in full. DO NOT dispose residue in sewers, streams or drinking water supply. Reclaim as fertilizer if possible. Observe all federal, state/provincial and municipal regulations. If necessary consult the Department of Environment or the relevant authorities.
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14. Transport information

UN Number	UN 2672
UN Proper Shipping Name	AMMONIA SOLUTION
Environmental hazards	Marine pollutant.
Special precautions for user	Permit required for transportation with proper DANGER placards displayed on vehicle.
TDG - Transportation of Dangerous Goods (Canada)	
Transport hazard class(es)	 Class 8
Packing group	III
Emergency response guidebook 2016	<u>154</u>
IMO/IMDG - International Maritime Transport	
Classification	UN 2672. AMMONIA SOLUTION. Class 8, PG III. Emergency schedules (EmS-No) F-A, S-B
IATA - International Air Transport Association	
Classification	UN 2672. AMMONIA SOLUTION. Class 8, PG III.
These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. In addition, if a domestic exemption exists, it is the responsibility of the shipper to define the application of it.	

15. Regulatory information

CANADA

Common name	CAS	CEPA	DSL	NDSL	NPRI
Water	7732-18-5		X		
Ammonia	7664-41-7	X	X		X

- CEPA: List of Toxic Substances Managed Under Canadian Environmental Protection Act
- DSL: Domestic Substances List Inventory
- NDSL: Non-Domestic Substances List Inventory
- NPRI: National Pollutant Release Inventory Substances

UNITED STATE OF AMERICA

Common name	CAS	TSCA	CER CLA	EPCRA 313	EPCRA 302/304	CAA 112(b) HON	CAA 112(b) HAP	CAA 112(r)	CWA 311	CWA Prio.
Water	7732-18-5	X								
Ammonia	7664-41-7	X	X		X			X	X	

- TSCA: Toxic Substance Control Act
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act list of hazardous substances
- EPCRA 313: Emergency Planning and Community Right-to-Know Act, Section 313 Toxic Chemicals
- EPCRA 302/304: Emergency Planning and Community Right-to-Know Act, Section 302/304 Extremely Hazardous Substances
- CAA 112(b) HON: Clean Air Act - Hazardous Organic National Emission Standard for Hazardous Air Pollutant
- CAA 112(b) HAP: Clean Air Act - Hazardous Air Pollutants lists pollutants
- CAA 112(r): Clean Air Act - Regulated Chemicals for Accidental Release Prevention
- CWA 311: Clean Water Act - List of Hazardous Substances
- CWA Priority: Clean Water Act - Priority Pollutant list

California Proposition 65

No ingredients listed.

Other regulations



16. Other information

Date (YYYY-MM-DD)	Sylvite 2018-02-19
Version	01
Other information	<p>REFERENCES:</p> <ul style="list-style-type: none"> - Haz-Map, Information on Hazardous Chemicals and Occupational Diseases, https://haz-map.com/ - TOXNET Databases, Toxicology Data Network, NIH U.S. National Library of Medicine, http://toxnet.nlm.nih.gov/ - Service du répertoire toxicologique de la Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST), http://www.reptox.csst.qc.ca - IPCS INCHEM, Chemical Safety Information from Intergovernmental Organizations, Canadian Centre for Occupational Health and Safety (CCOHS), Copyright International Programme on Chemical Safety (IPCS), http://www.inchem.org - NIOSH Pocket Guide to Chemical Hazards, Centers for Disease Control and Prevention, NIOSH

Publications, 2007, <http://www.cdc.gov/niosh/npg/npg.html>

- Ammonia, The Registry of Toxic Effects of Chemical Substances, RTECS #: BO0875000.

- Toxicological Review, Integrated Risk Information System (IRIS), USA Environment Protection Agency, www.epa.gov/iris

ACGIH: American Conference of Governmental Industrial Hygienists

AIHA: American Industrial Hygiene Association

HMIS: Hazardous Materials Identification System

NFPA: National Fire Protection Association

OSHA: Occupational Safety and Health Administration (USA)

NIOSH: National Institute for Occupational Safety and Health

NTP: National Toxicology Program

RSST: Règlement sur la santé et la sécurité du travail (Québec)

GHS: Globally Harmonized System

IARC: International Agency for Research on Cancer

IDLH: Immediately Dangerous to Life or Health

STEL: Short Term Exposure Limit (15 min)

TWA: Time Weighted Averages

WHMIS: Workplace Hazardous Materials Information System

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