

**SECTION: 1. Product and company identification**

**1.1. Product identifier**

Product form : Substance  
 Substance name : Ammonia - US  
 CAS-No. : 7664-41-7  
 Formula : NH3

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Use of the substance/mixture : Industrial use; Use as directed.

**1.3. Details of the supplier of the safety data sheet**

Praxair, Inc.  
 10 Riverview Drive  
 Danbury, CT 06810-6268 - USA  
 T 1-800-772-9247 (1-800-PRAXAIR) - F 1-716-879-2146  
[www.praxair.com](http://www.praxair.com)

**1.4. Emergency telephone number**

**Emergency number** : Onsite Emergency: 1-800-645-4633

CHEMTREC, 24hr/day 7days/week  
 — Within USA: 1-800-424-9300, Outside USA: 001-703-527-3887  
 (collect calls accepted, Contract 17729)

**SECTION 2: Hazard identification**

**2.1. Classification of the substance or mixture**

**GHS US classification**

Flam. Gas 2 H221  
 Press. Gas (Liq.) H280  
 Acute Tox. 4 (Inhalation:gas) H332  
 Skin Corr. 1B H314  
 STOT SE 3 H335  
 Aquatic Acute 1 H400

**2.2. Label elements**

**GHS US labeling**

Hazard pictograms (GHS US) :



GHS04 GHS05 GHS07 GHS09

Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

H221 - FLAMMABLE GAS  
 H280 - CONTAINS GAS UNDER PRESSURE; MAY EXPLODE IF HEATED  
 H314 - CAUSES SEVERE SKIN BURNS AND EYE DAMAGE  
 H332 - HARMFUL IF INHALED  
 H400 - VERY TOXIC TO AQUATIC LIFE  
 CGA-HG01 - MAY CAUSE FROSTBITE.  
 CGA-HG22 - CORROSIVE TO THE RESPIRATORY TRACT (This statement supercedes H335)

Precautionary statements (GHS US) :

P202 - Do not handle until all safety precautions have been read and understood.  
 P210 - Keep away from Heat, Open flames, Sparks, Hot surfaces. - No smoking  
 P260 - Do not breathe gas  
 P262 - Do not get in eyes, on skin, or on clothing.  
 P280 - Wear protective gloves, protective clothing, eye protection, face protection.

# Ammonia - US

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- P271+P403 - Use and store only outdoors or in a well-ventilated place.
- P273 - Avoid release to the environment.
- P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
- P381 - Eliminate all ignition sources if safe to do so.
- P501 - Dispose of contents/container in accordance with container Supplier/owner instructions
- P303, P361, P353, P363, P310 - IF ON SKIN OR (HAIR): Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a poison center or doctor/physician.
- P304-P340-P312 - IF INHALED: remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
- P305, P351, P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.
- P332+P313 - IF SKIN IRRITATION OCCURS: Get medical advice/attention.
- CGA-PG05 - Use a back flow preventive device in the piping.
- CGA-PG20+CGA-PG10 - Use only with equipment of compatible materials of construction and rated for cylinder pressure.
- CGA-PG12 - Do not open valve until connected to equipment prepared for use.
- CGA-PG06 - Close valve after each use and when empty.
- CGA-PG02 - Protect from sunlight when ambient temperature exceeds 52°C (125°F).

### 2.3. Other hazards

Other hazards not contributing to the classification : Contact with liquid may cause cold burns/frostbite.

### 2.4. Unknown acute toxicity (GHS US)

No data available

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Name : Ammonia - US  
CAS-No. : 7664-41-7

Name	Product identifier	%
Ammonia	(CAS-No.) 7664-41-7	99.5 - 100

### 3.2. Mixtures

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- First-aid measures after inhalation : Remove to fresh air and keep at rest in a position comfortable for breathing. . If not breathing, give artificial respiration, with supplemental oxygen given by qualified personnel. If breathing is difficult, qualified personnel should give oxygen. Call a physician.
- First-aid measures after skin contact : In case of contact, immediately flush affected areas with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician. Wash clothing before reuse. Discard contaminated shoes. The liquid may cause frostbite. For exposure to liquid, immediately warm frostbite area with warm water not to exceed 105°F (41°C). Water temperature should be tolerable to normal skin. Maintain skin warming for at least 15 minutes or until normal coloring and sensation have returned to the affected area. In case of massive exposure, remove clothing while showering with warm water. Seek medical evaluation and treatment as soon as possible.
- First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Hold the eyelids open and away from the eyeballs to ensure that all surfaces are flushed thoroughly. Contact an ophthalmologist immediately. Get immediate medical attention.
- First-aid measures after ingestion : Ingestion is not considered a potential route of exposure.

### 4.2. Most important symptoms and effects, both acute and delayed

No additional information available

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat with corticosteroid spray as soon as possible after inhalation. Obtain medical assistance.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide, Dry chemical, Water spray or fog.

#### 5.2. Special hazards arising from the substance or mixture

Reactivity : No reactivity hazard other than the effects described in sub-sections below.

#### 5.3. Advice for firefighters

Firefighting instructions : Evacuate all personnel from the danger area. Use self-contained breathing apparatus (SCBA) and protective clothing. Immediately cool containers with water from maximum distance. Stop flow of gas if safe to do so, while continuing cooling water spray. Remove ignition sources if safe to do so. Remove containers from area of fire if safe to do so. On-site fire brigades must comply with OSHA 29 CFR 1910.156 and applicable standards under 29 CFR 1910 Subpart L—Fire Protection.

Protection during firefighting : **DANGER! Corrosive liquid and gas under pressure.** Suffocation hazard by lack of oxygen.

Special protective equipment for fire fighters : Wear gas tight chemically protective clothing in combination with self contained breathing apparatus. Standard protective clothing and equipment (Self Contained Breathing Apparatus) for fire fighters.

Other information : Heat of fire can build pressure in cylinder and cause it to rupture. No part of a cylinder should be subjected to a temperature higher than 125°F (52°C). Cylinders are equipped with a pressure-relief device. (Exceptions may exist where authorized by DOT, in this case where cylinders contain less than 165 pounds of product.) If leaking or spilled product catches fire, do not extinguish flames. Flammable and toxic vapors may spread from leak and could explode if reignited. Vapors can be ignited by pilot lights, other flames, smoking, sparks, heaters, electrical equipment, static discharge, or other ignition sources at locations distant from product handling point. Explosive atmospheres may linger. Before entering area, especially confined areas, check atmosphere with an appropriate device. Reverse flow into cylinder may cause rupture. To protect persons from cylinder fragments and toxic fumes if a rupture occurs, totally evacuate the area if the fire cannot be brought under immediate control.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate personnel to a safe area. Appropriate self-contained breathing apparatus may be required. Approach suspected leak area with caution. Remove all sources of ignition. If safe to do so. Reverse flow into cylinder may cause rupture. Reduce gas with fog or fine water spray. Stop flow of product if safe to do so. Ventilate area or move container to a well-ventilated area. Flammable gas may spread from leak. Before entering the area, especially a confined area, check the atmosphere with an appropriate device.

##### 6.1.1. For non-emergency personnel

No additional information available

##### 6.1.2. For emergency responders

No additional information available

#### 6.2. Environmental precautions

Prevent waste from contaminating the surrounding environment. Prevent soil and water pollution. Dispose of contents/container in accordance with local/regional/national/international regulations. Contact supplier for any special requirements.

#### 6.3. Methods and material for containment and cleaning up

No additional information available

#### 6.4. Reference to other sections

See also sections 8 and 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Precautions for safe handling :
- Do not breathe gas/vapor. Avoid all contact with skin, eyes, or clothing. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
  - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only non-sparking tools. Use only explosion-proof equipment.
  - Wear leather safety gloves and safety shoes when handling cylinders. Protect cylinders from physical damage; do not drag, roll, slide or drop. While moving cylinder, always keep in place removable valve cover. Never attempt to lift a cylinder by its cap; the cap is intended solely to protect the valve. When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders. Never insert an object (e.g, wrench, screwdriver, pry bar) into cap openings; doing so may damage the valve and cause a leak. Use an adjustable strap wrench to remove over-tight or rusted caps. Slowly open the valve. If the valve is hard to open, discontinue use and contact your supplier. Close the container valve after each use; keep closed even when empty. Never apply flame or localized heat directly to any part of the container. High temperatures may damage the container and could cause the pressure relief device to fail prematurely, venting the container contents. For other precautions in using this product, see section 16.

#### 7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions :
- Store in a cool, well-ventilated place. Store and use with adequate ventilation. Store only where temperature will not exceed 125°F (52°C). Firmly secure containers upright to keep them from falling or being knocked over. Install valve protection cap, if provided, firmly in place by hand. Store full and empty containers separately. Use a first-in, first-out inventory system to prevent storing full containers for long periods.
- OTHER PRECAUTIONS FOR HANDLING, STORAGE, AND USE:** When handling product under pressure, use piping and equipment adequately designed to withstand the pressures to be encountered. Never work on a pressurized system. Use a back flow preventive device in the piping. Gases can cause rapid suffocation because of oxygen deficiency; store and use with adequate ventilation. If a leak occurs, close the container valve and blow down the system in a safe and environmentally correct manner in compliance with all international, federal/national, state/provincial, and local laws; then repair the leak. Never place a container where it may become part of an electrical circuit.

#### 7.3. Specific end use(s)

None.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Ammonia - US (7664-41-7)		
ACGIH	ACGIH TLV-TWA (ppm)	25 ppm
ACGIH	ACGIH TLV-STEL (ppm)	35 ppm
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	35 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (ppm)	50 ppm
USA IDLH	US IDLH (ppm)	300 ppm
Ammonia (7664-41-7)		
ACGIH	ACGIH TLV-TWA (ppm)	25 ppm
ACGIH	ACGIH TLV-STEL (ppm)	35 ppm
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	35 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (ppm)	50 ppm

#### 8.2. Exposure controls

- Appropriate engineering controls :
- USE ONLY IN A CLOSED SYSTEM. An explosion-proof, corrosion-resistant, forced-draft fume hood is preferred.

Eye protection	: Wear safety glasses when handling cylinders; vapor-proof goggles and a face shield during cylinder changeout or whenever contact with product is possible. Select eye protection in accordance with OSHA 29 CFR 1910.133.
Skin and body protection	: Wear metatarsal shoes and work gloves for cylinder handling, and protective clothing where needed. Wear appropriate chemical gloves during cylinder changeout or wherever contact with product is possible. Select per OSHA 29 CFR 1910.132, 1910.136, and 1910.138.
Respiratory protection	: When workplace conditions warrant respirator use, follow a respiratory protection program that meets OSHA 29 CFR 1910.134, ANSI Z88.2, or MSHA 30 CFR 72.710 (where applicable). Use an air-supplied or air-purifying cartridge if the action level is exceeded. Ensure that the respirator has the appropriate protection factor for the exposure level. If cartridge type respirators are used, the cartridge must be appropriate for the chemical exposure. For emergencies or instances with unknown exposure levels, use a self-contained breathing apparatus (SCBA).
Thermal hazard protection	: Wear cold insulating gloves when transfilling or breaking transfer connections.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Gas
Appearance	: Colorless gas. Liquid under pressure.
Molecular mass	: 17 g/mol
Color	: Colorless.
Odor	: Ammoniacal.
Odor threshold	: No data available
pH	: Not applicable.
Relative evaporation rate (butyl acetate=1)	: No data available
Relative evaporation rate (ether=1)	: Not applicable.
Melting point	: -77.7 °C
Freezing point	: No data available
Boiling point	: -33.4 °C
Flash point	: No data available
Critical temperature	: 132.4 °C
Auto-ignition temperature	: 650 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: ≥ 16 vol % 25
Vapor pressure	: 860 kPa
Critical pressure	: 11350 kPa
Relative vapor density at 20 °C	: No data available
Relative density	: 0.7
Density	: 0.682 g/cm <sup>3</sup> (at -33 °C)
Relative gas density	: 0.6
Solubility	: Water: 517000 mg/l
Log Pow	: Not applicable.
Log Kow	: Not applicable.
Viscosity, kinematic	: Not applicable.
Viscosity, dynamic	: Not applicable.
Explosive properties	: Not applicable.
Oxidizing properties	: None.
Explosion limits	: No data available

### 9.2. Other information

Gas group	: Press. Gas (Liq.)
Additional information	: None.

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### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No reactivity hazard other than the effects described in sub-sections below.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

May occur.

#### 10.4. Conditions to avoid

Avoid prolonged exposure to air or moisture. Avoid moisture in installation systems.

#### 10.5. Incompatible materials

Gold, silver, mercury, Oxidizing agents, Halogens, Halogenated compounds, Acids, Copper, Zinc, Copper/Zinc alloys (Brass), Chlorates.

#### 10.6. Hazardous decomposition products

Hydrogen may be formed at temperatures above 1544°F (840°C).

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity : Inhalation:gas: HARMFUL IF INHALED.

Ammonia - US ( 1f )7664-41-7	
LC50 inhalation rat (ppm)	7338 ppm/1h
ATE US (gases)	3669 ppmV/4h
Ammonia (7664-41-7)	
LC50 inhalation rat (ppm)	7338 ppm/1h
ATE US (gases)	3669 ppmV/4h

Skin corrosion/irritation : CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.

pH: Not applicable.

Serious eye damage/irritation : Not classified

pH: Not applicable.

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity – single exposure : MAY CAUSE RESPIRATORY IRRITATION.

Specific target organ toxicity – repeated exposure : Not classified

Aspiration hazard : Not classified

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general : VERY TOXIC TO AQUATIC LIFE. No ecological damage caused by this product.

Ammonia - US (7664-41-7)	
LC50 fish 1	0.44 mg/l (Exposure time: 96 h - Species: Cyprinus carpio)
EC50 Daphnia 1	25.4 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	2.43 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus)
Ammonia (7664-41-7)	
LC50 fish 1	0.44 mg/l (Exposure time: 96 h - Species: Cyprinus carpio)
EC50 Daphnia 1	25.4 mg/l (Exposure time: 48 h - Species: Daphnia magna)

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Ammonia (7664-41-7)	
LC50 fish 2	2.43 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus)

### 12.2. Persistence and degradability

Ammonia - US (7664-41-7)	
Persistence and degradability	The substance is biodegradable. Unlikely to persist.

Ammonia (7664-41-7)	
Persistence and degradability	The substance is biodegradable. Unlikely to persist.

### 12.3. Bioaccumulative potential

Ammonia - US (7664-41-7)	
Log Pow	Not applicable.
Log Kow	Not applicable.
Bioaccumulative potential	Not expected to bioaccumulate due to the low log Kow (log Kow < 4). Refer to section 9.

Ammonia (7664-41-7)	
Log Pow	Not applicable.
Log Kow	Not applicable.
Bioaccumulative potential	Not expected to bioaccumulate due to the low log Kow (log Kow < 4). Refer to section 9.

### 12.4. Mobility in soil

Ammonia - US (7664-41-7)	
Mobility in soil	No data available.
Ecology - soil	Because of its high volatility, the product is unlikely to cause ground or water pollution.

Ammonia (7664-41-7)	
Mobility in soil	No data available.
Ecology - soil	Because of its high volatility, the product is unlikely to cause ground or water pollution.

### 12.5. Other adverse effects

- Other adverse effects : May cause pH changes in aqueous ecological systems.
- Effect on ozone layer : None.
- Effect on the global warming : No known effects from this product.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Do not attempt to dispose of residual or unused quantities. Return container to supplier.

## SECTION 14: Transport information

- In accordance with DOT
- Transport document description : UN1005 Ammonia, anhydrous, 2.2
- UN-No.(DOT) : UN1005
- Proper Shipping Name (DOT) : Ammonia, anhydrous
- Class (DOT) : 2.2 - Class 2.2 - Non-flammable compressed gas 49 CFR 173.115
- Hazard labels (DOT) : 2.2 - Non-flammable gas



DOT Symbols : D - Proper shipping name for domestic use only, or to and from Canada

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DOT Special Provisions (49 CFR 172.102) : 13 - The words Inhalation Hazard shall be entered on each shipping paper in association with the shipping description, shall be marked on each non-bulk package in association with the proper shipping name and identification number, and shall be marked on two opposing sides of each bulk package. Size of marking on bulk package must conform to 172.302(b) of this subchapter. The requirements of 172.203(m) and 172.505 of this subchapter do not apply.  
 T50 - When portable tank instruction T50 is referenced in Column (7) of the 172.101 Table, the applicable liquefied compressed gases are authorized to be transported in portable tanks in accordance with the requirements of 173.313 of this subchapter.

Marine pollutant : Yes



### Additional information

Emergency Response Guide (ERG) Number : 125 (UN1005);154 (UN2672)

Other information : No supplementary information available.

Special transport precautions : Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. Before transporting product containers:  
 - Ensure there is adequate ventilation. - Ensure that containers are firmly secured. - Ensure cylinder valve is closed and not leaking. - Ensure valve outlet cap nut or plug (where provided) is correctly fitted. - Ensure valve protection device (where provided) is correctly fitted.

### Transport by sea

UN-No. (IMDG) : 1005  
 Proper Shipping Name (IMDG) : AMMONIA, ANHYDROUS  
 Class (IMDG) : 2 - Gases  
 Division (IMDG) : 2.3 - Toxic gases  
 MFAG-No : 125

### Air transport

UN-No. (IATA) : 1005  
 Proper Shipping Name (IATA) : Ammonia, anhydrous  
 Class (IATA) : 2.3 - Gases : toxic  
 Subsidiary risk (IATA) : (8)  
 Civil Aeronautics Law : Gases under pressure/Gases toxic under pressure

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

Ammonia - US (7664-41-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on the United States SARA Section 302	
Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	100 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	500 lb
SARA Section 313 - Emission Reporting	1 % (includes anhydrous Ammonia and aqueous Ammonia from water dissociable Ammonium salts and other sources, 10% of total aqueous Ammonia is reportable under this listing)



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Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Ammonia	CAS-No. 7664-41-7	99.5 - 100%
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### Ammonia (7664-41-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Listed on the United States SARA Section 302  
Subject to reporting requirements of United States SARA Section 313

CERCLA RQ	100 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	500 lb
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard Sudden release of pressure hazard Fire hazard
SARA Section 313 - Emission Reporting	1 % (includes anhydrous Ammonia and aqueous Ammonia from water dissociable Ammonium salts and other sources, 10% of total aqueous Ammonia is reportable under this listing)

## 15.2. International regulations

### CANADA

#### Ammonia - US (7664-41-7)

Listed on the Canadian DSL (Domestic Substances List)

#### Ammonia (7664-41-7)

Listed on the Canadian DSL (Domestic Substances List)

## EU-Regulations

#### Ammonia - US (7664-41-7)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

#### Ammonia (7664-41-7)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

## 15.2.2. National regulations

#### Ammonia - US (7664-41-7)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on the Japanese ISHL (Industrial Safety and Health Law)  
Listed on the Korean ECL (Existing Chemicals List)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Japanese Poisonous and Deleterious Substances Control Law  
Listed on the Canadian IDL (Ingredient Disclosure List)  
Listed on INSQ (Mexican National Inventory of Chemical Substances)  
Listed on the TCSI (Taiwan Chemical Substance Inventory)

#### Ammonia (7664-41-7)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on the Japanese ISHL (Industrial Safety and Health Law)  
Listed on the Korean ECL (Existing Chemicals List)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Japanese Poisonous and Deleterious Substances Control Law  
Listed on the Canadian IDL (Ingredient Disclosure List)  
Listed on INSQ (Mexican National Inventory of Chemical Substances)  
Listed on the TCSI (Taiwan Chemical Substance Inventory)



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### 15.3. US State regulations

Ammonia - US(7664-41-7)	
U.S. - California - Proposition 65 - Carcinogens List	No
U.S. - California - Proposition 65 - Developmental Toxicity	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No
State or local regulations	U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List U.S. - Pennsylvania - RTK (Right to Know) List

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Ammonia (7664-41-7)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

Ammonia (7664-41-7)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List U.S. - Pennsylvania - RTK (Right to Know) List

**SECTION 16: Other information**

Other information

: When you mix two or more chemicals, you can create additional, unexpected hazards. Obtain and evaluate the safety information for each component before you produce the mixture. Consult an industrial hygienist or other trained person when you evaluate the end product. Before using any plastics, confirm their compatibility with this product.

Praxair asks users of this product to study this SDS and become aware of the product hazards and safety information. To promote safe use of this product, a user should (1) notify employees, agents, and contractors of the information in this SDS and of any other known product hazards and safety information, (2) furnish this information to each purchaser of the product, and (3) ask each purchaser to notify its employees and customers of the product hazards and safety information.

The opinions expressed herein are those of qualified experts within Praxair, Inc. We believe that the information contained herein is current as of the date of this Safety Data Sheet. Since the use of this information and the conditions of use are not within the control of Praxair, Inc, it is the user's obligation to determine the conditions of safe use of the product.

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NFPA health hazard

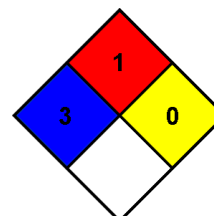
: 3 - Materials that, under emergency conditions, can cause serious or permanent injury.

NFPA fire hazard

: 1 - Materials that must be preheated before ignition can occur.

NFPA instability

: 0 - Material that in themselves are normally stable, even under fire conditions.



SDS US (GHS HazCom 2012) - Praxair

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*