

# Safety Data Sheet

## Ammonium Hydroxide, 6M

**CAROLINA**<sup>®</sup>  
www.carolina.com

### Section 1

### Product Description

**Product Name:** Ammonium Hydroxide, 6M  
**Recommended Use:** Science education applications  
**Distributor:** Carolina Biological Supply Company  
2700 York Road, Burlington, NC 27215  
1-800-227-1150  
**Chemical Information:** 800-227-1150 (8am-5pm (ET) M-F)  
**Chemtrec:** 800-424-9300 (Transportation Spill Response 24 hours)

### Section 2

### Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

**DANGER**



Harmful if swallowed. Causes serious eye damage. Very toxic to aquatic life.

#### GHS Classification:

Skin Corrosion/Irritation Category 1, Serious Eye Damage/Eye Irritation Category 1, Hazardous to the aquatic environment - Acute Category 1, Acute Toxicity - Oral Category 4

**Acute Toxicity Dermal Contains**

12 % of the mixture consists of ingredient(s) of unknown toxicity

### Section 3

### Composition / Information on Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>%</u>
Water	7732-18-5	88
Ammonia (Ammonium hydroxide)	1336-21-6	12

### Section 4

### First Aid Measures

#### Emergency and First Aid Procedures

**Inhalation:** In case of accident by inhalation: remove casualty to fresh air and keep at rest.  
**Eyes:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
**Skin Contact:** After contact with skin, wash immediately with plenty of water.  
**Ingestion:** IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

### Section 5

### Firefighting Procedures

**Extinguishing Media:** Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.  
**Fire Fighting Methods and Protection:** Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.  
**Fire and/or Explosion Hazards:** Fire or excessive heat may produce hazardous decomposition products.  
**Hazardous Combustion Products:** Nitrogen oxides

# Safety Data Sheet

## Section 6

## Spill or Leak Procedures

### Steps to Take in Case Material Is Released or Spilled:

Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits. Ventilate the contaminated area. Isolate area. Keep unnecessary personnel away. Keep upwind of the spilled material and isolate exposure. Remove soiled clothing and launder before reuse. Absorb the liquid and scrub the area with detergent and water. Avoid runoff into storm sewers and ditches that lead to waterways. Pick up wash liquid with additional absorbent and place in a disposable container. Use an inert absorbent such as sand or vermiculite. Place in properly labeled closed container. Do not flush spill to drain. Block any potential routes to water systems. Collect spillage.

## Section 7

## Handling and Storage

**Handling:** Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

**Storage:** Keep container tightly closed in a cool, well-ventilated place.

**Storage Code:** White - Corrosive. Separate acids from bases; separate oxidizer acids from organic acids.

## Section 8

## Protection Information

Chemical Name	ACGIH		OSHA PEL	
	(TWA)	(STEL)	(TWA)	(STEL)
Ammonium hydroxide	25.000000 ppm	35.000000 ppm	25.000000 ppm	35.000000 ppm

### Control Parameters

#### Engineering Measures:

Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure. Good general room ventilation should be sufficient to control airborne contaminants to safe levels.

#### Personal Protective Equipment (PPE):

Lab coat, apron, eye wash, safety shower.

#### Respiratory Protection:

No respiratory protection required under normal conditions of use. Wear a NIOSH approved respirator if levels above the exposure limits are possible.

#### Eye Protection:

Wear chemical splash goggles when handling this product. Have an eye wash station available.

#### Skin Protection:

Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

#### Gloves:

Nitrile

## Section 9

## Physical Data

**Formula:** See Section 3

**Molecular Weight:**

**Appearance:**

**Odor:** Strong Ammonia

**Odor Threshold:** No data available

**pH:** No data available

**Melting Point:**  $\geq -60$  C

**Boiling Point:** Estimated 0 C

**Flash Point:** No data available

**Flammable Limits in Air:** 16 %(V) 27 %(V)

**Vapor Pressure:** No data available

**Evaporation Rate (BuAc=1):** No data available

**Vapor Density (Air=1):** No data available

**Specific Gravity:** No data available

**Solubility in Water:** No data available

**Log Pow (calculated):** No data available

**Autoignition Temperature:** No data available

**Decomposition Temperature:** No data available

**Viscosity:** 10

**Percent Volatile by Volume:** No data available

## Section 10

## Reactivity Data

**Reactivity:**

No data available

**Chemical Stability:**

Stable under normal conditions.

# Safety Data Sheet

<b>Conditions to Avoid:</b>	None known.
<b>Incompatible Materials:</b>	Water-reactive materials, Copper, Zinc, Metals (ferrous)
<b>Hazardous Decomposition Products:</b>	Nitrogen oxides
<b>Hazardous Polymerization:</b>	Will not occur

## Section 11 Toxicity Data

<b>Routes of Entry</b>	Inhalation, Skin and Eye contact.
<b>Symptoms (Acute):</b>	No data available
<b>Delayed Effects:</b>	No data available

### Acute Toxicity:

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Water	7732-18-5			
Ammonia (Ammonium hydroxide)	1336-21-6			INHALATION LC50 Mouse 4500 ppm INHALATION LC50 Mouse 21430 ppm INHALATION LC50 Rat 9500 ppm

### Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
No data available		Not listed	Not listed	Not listed

### Chronic Effects:

<b>Mutagenicity:</b>	No evidence of a mutagenic effect.
<b>Teratogenicity:</b>	No evidence of a teratogenic effect (birth defect).
<b>Sensitization:</b>	No evidence of a sensitization effect.
<b>Reproductive:</b>	No evidence of negative reproductive effects.
<b>Target Organ Effects:</b>	
Acute:	No data available
Chronic:	No data available

## Section 12 Ecological Data

<b>Overview:</b>	Severe ecological hazard. This product may be toxic to plants and/or wildlife.
<b>Mobility:</b>	No data
<b>Persistence:</b>	No data
<b>Bioaccumulation:</b>	No data
<b>Degradability:</b>	No data
<b>Other Adverse Effects:</b>	No data

Chemical Name	CAS Number	Eco Toxicity
Water	7732-18-5	No data available
Ammonia (Ammonium hydroxide)	1336-21-6	96 HR LC50 PIMEPHALES PROMELAS 8.2 MG/L 48 HR EC50 DAPHNIA PULEX 0.66 MG/L 48 HR EC50 WATER FLEA 0.66 MG/L

## Section 13 Disposal Information

<b>Disposal Methods:</b>	Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
<b>Waste Disposal Code(s):</b>	Not Determined

# Safety Data Sheet

## Section 14

## Transport Information

**Ground - DOT Proper Shipping Name:**

UN number: 2672 Class: 8 Packing group: III

**Air - IATA Proper Shipping Name:**

UN number: 2672 Class: 8 Packing group: III

## Section 15

## Regulatory Information

**TSCA Status:**

All components in this product are on the TSCA Inventory.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
Ammonia (Ammonium hydroxide)	1336-21-6	Ammonium hydroxide, 1336-21-6, 2007-03-01	1000 lb RQ	1000 lb final RQ; 454 kg final RQ	No	No

## Section 16

## Additional Information

**Revised: 04/17/2015**

**Replaces: None**

**Printed: 04-22-2015**

The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

### Glossary

ACGIH	American Conference of Governmental Industrial Hygienists	NTP	National Toxicology Program
CAS	Chemical Abstract Service Number	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
DOT	U.S. Department of Transportation	ppm	Parts per million
IARC	International Agency for Research on Cancer	RCRA	Resource Conservation and Recovery Act
N/A	Not Available	SARA	Superfund Amendments and Reauthorization Act
		TLV	Threshold Limit Value
		TSCA	Toxic Substances Control Act
		IDLH	Immediately dangerous to life and health