

# Safety Data Sheet

060-017

## 10% AMMONIA

### SECTION 1. IDENTIFICATION

**Product Identifier** 10% AMMONIA  
**Other Means of Identification** L5503  
**Recommended Use** Commercial Cleaner.  
**Restrictions on Use** Keep Away from Children.  
**Manufacturer** Chemisphere Solutions Ltd., 15 Calder Place, St. Albert, Alberta, T8N 5A6, Canada  
**Supplier Identifier** Chemisphere Solutions Ltd., 15 Calder Place, St. Albert, Alberta, T8N 5A6, Canada  
**Emergency Phone No.** CANUTEC, 613 966 - 6666, 24 Hours  
Alberta Poison Centre, (800) 332 - 1414, 24 Hours  
**SDS No.** 00680073

### SECTION 2. HAZARD IDENTIFICATION

#### Classification

Corrosive to metals - Category 1; Acute toxicity (Oral) - Category 4; Acute toxicity (Inhalation) - Category 4; Skin corrosion - Category 1; Serious eye damage - Category 1

#### Label Elements



**Signal Word:**  
Danger

#### Hazard Statement(s):

Harmful if swallowed.  
Harmful if inhaled.  
Causes severe skin burns and eye damage.

#### Precautionary Statement(s):

Prevention:  
Avoid breathing dust/fume/gas/mist/vapours/spray.  
Wash hands thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves/protective clothing/eye protection/face protection.

**Product Identifier:** 10% AMMONIA - Ver. 1  
**Date of Preparation:** May 07, 2018  
**Date of Last Revision:** May 07, 2018

Page 01 of 07

**Response:**

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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 CENTRE or doctor.

**Storage:**

Store locked up.

**Other Hazards**

None known.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Ammonium hydroxide	1336-21-6	7-12		

### SECTION 4. FIRST-AID MEASURES

**First-aid Measures**

**Inhalation**

Take precautions to ensure your own safety before attempting rescue (e.g. wear appropriate protective equipment). Move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor.

Call a Poison Centre or doctor.

**Skin Contact**

Avoid direct contact. Wear chemical protective clothing if necessary.

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately rinse skin with lukewarm, gently flowing water for at least 30 minutes. Cover with dressing. Call a Poison Centre or doctor if you feel unwell.

**Eye Contact**

Avoid direct contact. Wear chemical protective gloves if necessary. Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes, while holding the eyelid(s) open. If contact lens is present, DO NOT DELAY irrigation or attempt to remove the lens until flushing is done. Neutral saline solution may be used as soon as it is available. DO NOT INTERRUPT FLUSHING. If necessary, continue flushing during transport to hospital. Take care not to rinse contaminated water into the unaffected eye or onto the face.

**Ingestion**

Rinse mouth with water. Drink large quantities of milk or water. Do not induce vomiting. Immediately call a Poison Centre or doctor.

**Most Important Symptoms and Effects, Acute and Delayed**

None known.

**Immediate Medical Attention and Special Treatment**

**Medical Conditions Aggravated by Exposure**

None known.

Product Identifier: 10% AMMONIA - Ver. 1

Date of Preparation: May 07, 2018

Date of Last Revision: May 07, 2018

Page 02 of 07

## SECTION 5. FIRE-FIGHTING MEASURES

### Extinguishing Media

#### Suitable Extinguishing Media

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

#### Unsuitable Extinguishing Media

None known.

### Specific Hazards Arising from the Product

Does not burn. May generate ammonia gas. Ammonia gas within the flammable range (15-28%) can be ignited and pose a significant fire and explosion hazard, especially in a confined space.

In a fire, the following hazardous materials may be generated: corrosive, flammable ammonia; corrosive, oxidizing nitrogen oxides; toxic chemicals.

### Special Protective Equipment and Precautions for Fire-fighters

Evacuate area. Fight fire from a safe distance or a protected location. Approach fire from upwind to avoid hazardous vapours or gases.

For a massive fire, immediately evacuate the area and use unmanned hose holder or monitor nozzles. If a fire occurs in the vicinity of the material, isolate materials not yet involved in the fire, and move containers from the fire area if this can be done without risk. If not possible, cool fire-exposed material with flooding quantities of water to absorb heat, keep containers cool and protect fire-exposed material. Cooling should continue until well after the fire is out.

Use extreme caution. Fire or excessive heat may rupture containers and suddenly release flammable and toxic gases. Withdraw immediately in case of rising sound from venting safety devices or any discolouration of tank.

Dike and recover contaminated water for appropriate disposal.

Fire-fighters should enter area wearing specialized protective equipment. (Bunker Gear will not provide adequate protection.) chemical protective clothing (e.g. chemical splash suit) and positive pressure SCBA may be necessary.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment, and Emergency Procedures

Emergency responders: get expert advice. Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment. Use the personal protective equipment recommended in Section 8 of this safety data sheet. Increase ventilation to area or move leaking container to a well-ventilated and secure area. Remove or isolate incompatible materials as well as other hazardous materials.

Before entry, especially into confined areas, check atmosphere with an appropriate monitor.

### Environmental Precautions

It is good practice to prevent releases into the environment.

### Methods and Materials for Containment and Cleaning Up

Stop or reduce leak if safe to do so. Knock down gas with fog or fine water spray.

Small spills or leaks: ventilate the area. Contain and soak up spill with absorbent that does not react with spilled product. Flush spill area. Place used absorbent into suitable, covered, labelled containers for disposal. Contaminated absorbent poses the same hazard as the spilled product.

Large spills or leaks: dike spilled product to prevent runoff. Ventilate the area. Knock down vapour with fog or fine water spray. Cover the spill surface with the appropriate type of foam to reduce the release of vapour. Remove or recover liquid using pumps or vacuum equipment. Flush spill area. Dike and recover contaminated water for appropriate disposal. Store recovered product in suitable containers that are: tightly-covered, corrosion-resistant.

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Do not breathe in this product. Prevent skin contact. Do not get in eyes. Do not swallow. Only use where there is adequate ventilation. Avoid generating vapours or mists.

Prevent uncontrolled release of product. Immediately report leaks, spills or failures of the safety equipment (e.g. ventilation system). Avoid heating that will increase the amount of vapours. Prevent accidental contact with incompatible chemicals. Wear personal protective equipment to avoid direct contact with this chemical.

Product Identifier: 10% AMMONIA - Ver. 1

Date of Preparation: May 07, 2018

Date of Last Revision: May 07, 2018

Page 03 of 07

Use corrosion-resistant tools and equipment. See Section 10 (Stability and Reactivity) for suitable materials. Never add water to a corrosive. Always add corrosives slowly to COLD water. Properly vent drums to prevent pressure buildup. Do not handle swollen drums. Contact supervisor for advice. Keep containers tightly closed when not in use or empty. General hygiene considerations: wash hands thoroughly after handling this material. Launder clothes before reworking. Inform laundry personnel of product hazard(s).

#### Conditions for Safe Storage

Store in an area that is: cool, well-ventilated, separate from incompatible materials (see Section 10: Stability and Reactivity).

Engineering controls are usually required in the storage area to protect against the product's hazard(s). Review Section 8 (Exposure Controls/Personal Protection) for information. Protect from conditions listed in Conditions to Avoid in Section 10 (Stability and Reactivity). Vent drums to prevent pressure buildup.

Comply with all applicable health and safety regulations, fire and building codes.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Ammonium hydroxide	25 ppm	35 ppm	50 ppm			

### Appropriate Engineering Controls

Use local exhaust ventilation and enclosure, if necessary, to control amount in the air. Use stringent control measures such as process enclosure to prevent product release into the workplace. Use a corrosion-resistant exhaust ventilation system separate from other ventilation systems. Exhaust directly to the outside, taking any necessary precautions for environmental protection.

Provide eyewash and safety shower if contact or splash hazard exists.

### Individual Protection Measures

#### Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

#### Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Butyl rubber, natural rubber, neoprene rubber, nitrile rubber, Viton®/butyl rubber.

#### Respiratory Protection

Wear a NIOSH approved self-contained breathing apparatus (SCBA) or supplied air respirator.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Basic Physical and Chemical Properties

Appearance	Colourless.
Odour	Pungent
Odour Threshold	Not available
pH	10.6 - 11.6
Melting Point/Freezing Point	Not available (melting); > -23.1 °C (-9.6 °F) (freezing)
Initial Boiling Point/Range	> 27.2 °C (81.0 °F)
Flash Point	Not applicable
Evaporation Rate	Not available
Flammability (solid, gas)	Not applicable
Upper/Lower Flammability or Explosive Limit	Not applicable (upper); Not applicable (lower)
Vapour Pressure	~ 10.5 kPa (78.8 mm Hg) at 20 °C
Vapour Density (air = 1)	~ 0.6
Relative Density (water = 1)	0.95 - 1.00

Product Identifier: 10% AMMONIA - Ver. 1

Date of Preparation: May 07, 2018

Date of Last Revision: May 07, 2018

<b>Solubility</b>	Soluble in all proportions in water
<b>Partition Coefficient, n-Octanol/Water (Log Kow)</b>	Not available
<b>Auto-ignition Temperature</b>	Not applicable
<b>Decomposition Temperature</b>	Not available
<b>Viscosity</b>	Not available (kinematic); ~ 1 centipoises (dynamic)

## SECTION 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions of use.

### Chemical Stability

Normally stable. Ammonia gas may be given off under normal conditions.

### Possibility of Hazardous Reactions

None known.

### Conditions to Avoid

High temperatures. Open flames, sparks, static discharge, heat and other ignition sources. Temperatures above 450.0 °C (842.0 °F)

### Incompatible Materials

Oxidizing agents (e.g. peroxides), heavy metals and their salts, strong mineral acids, halogens (e.g. chlorine). Corrosive to: aluminum alloys, carbon steel, copper alloys (e.g. brass and/or bronze).

### Hazardous Decomposition Products

Corrosive, flammable ammonia; flammable hydrogen gas; corrosive, oxidizing nitrogen oxides.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Likely Routes of Exposure

Inhalation; skin contact; eye contact; ingestion.

### Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Ammonium hydroxide	3669 ppm (rat) (4-hour exposure)	350 mg/kg (rat)	

### Skin Corrosion/Irritation

Human experience and animal tests show skin corrosion. The vapour also irritates or burns the skin. Permanent scarring can result.

### Serious Eye Damage/Irritation

Human experience and animal tests show serious eye damage.

### STOT (Specific Target Organ Toxicity) - Single Exposure

#### Inhalation

Causes severe bronchial irritation and pulmonary edema. At high concentrations may cause death.

#### Skin Absorption

No information was located.

#### Ingestion

Causes severe irritation or burns to the mouth, throat and stomach. Swallowing as little as one teaspoonful may cause death.

### Aspiration Hazard

Not known to be an aspiration hazard.

### STOT (Specific Target Organ Toxicity) - Repeated Exposure

Product Identifier: 10% AMMONIA - Ver. 1  
Date of Preparation: May 07, 2018  
Date of Last Revision: May 07, 2018

May cause effects similar to STOT (Specific Target Organ Toxicity) - Single Exposure, as described above.

#### **Respiratory and/or Skin Sensitization**

Not known to be a respiratory sensitizer. Not known to be a skin sensitizer.

#### **Carcinogenicity**

Not known to cause cancer.

#### **Reproductive Toxicity**

##### **Development of Offspring**

Not known to harm the unborn child.

##### **Sexual Function and Fertility**

Not known to cause effects on sexual function or fertility.

##### **Effects on or via Lactation**

Not known to cause effects on or via lactation.

#### **Germ Cell Mutagenicity**

Not known to be a mutagen.

#### **Interactive Effects**

Rats pretreated with a known carcinogen and then exposed to 0.01% ammonium hydroxide in drinking water for 24 weeks showed an increased incidence of gastric cancer.(32,63) This study suggests that long-term oral exposure to ammonium hydroxide may result in the promotion of stomach cancer caused by other chemicals.

## **SECTION 12. ECOLOGICAL INFORMATION**

This section is not required by WHMIS. This section is not required by OSHA HCS 2012.

## **SECTION 13. DISPOSAL CONSIDERATIONS**

#### **Disposal Methods**

This section is not required by OSHA HCS 2012. This section is not required by WHMIS 2015.

## **SECTION 14. TRANSPORT INFORMATION**

This section is not required by WHMIS 2015. This section is not required by OSHA HCS 2012.

**Special Precautions** Not applicable

**Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

## **SECTION 15. REGULATORY INFORMATION**

#### **Safety, Health and Environmental Regulations**

This section is not required by OSHA HCS 2012. This section is not required by WHMIS.

## **SECTION 16. OTHER INFORMATION**

**SDS Prepared By** Chemisphere Solutions Ltd

**Phone No.** (780) 460-4670

**Date of Preparation** May 07, 2018

**Date of Last Revision** May 07, 2018

**Key to Abbreviations** IARC = International Agency for Research on Cancer  
HSDB® = Hazardous Substances Data Bank  
OSHA = US Occupational Safety and Health Administration

**References** CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).  
HSDB® database. US National Library of Medicine. Available from Canadian Centre for

**Product Identifier:** 10% AMMONIA - Ver. 1

**Date of Preparation:** May 07, 2018

**Date of Last Revision:** May 07, 2018

Occupational Health and Safety (CCOHS).

---

Product Identifier: 10% AMMONIA - Ver. 1

Date of Preparation: May 07, 2018

Date of Last Revision: May 07, 2018

Page 07 of 07