

# HARDNESS BUFFER

Product: R-0619

## Section 1: PRODUCT INFORMATION

**Chemical family:** Alkaline solution.

**Product uses:** Chemical.

**Supplier:** Lowry & Associates, div. of Chem-Aquascience, Inc  
Canadian Master Distributors for Taylor Technologies, Inc.  
4-1151 Gorham Street  
Newmarket, ON.  
L3Y 8Y1  
Tel: 905-836-0505  
Fax: 905-895-4539.

**Emergency Phone Number:** Canutec 613-996-6666.  
905-625-9117 (Monday - Friday 9 a.m. - 4 p.m.).

**Manufacturer:** Taylor Technologies Inc.  
31 Loveton Circle  
Sparks, MD USA 21152  
Tel: 410-472-4340.

**TDG classification:** AMMONIA SOLUTION  
UN2672  
Class 8  
PG III.



**WHMIS classification:**

D1B, E.



**DSL status:** The substance(s) listed in section 2 appear on the Domestic Substances List.

## Section 2: HAZARDOUS INGREDIENTS

C.A.S.	CONCENTRATION %	Ingredient Name	T.L.V.	LD/50	LC/50
12125-02-9	<10	AMMONIUM CHLORIDE	10 MG/M3 (FUME)	1650 MG/KG RAT ORAL  1300 MG/KG MOUSE ORAL	NOT AVAILABLE
12135-76-1	<1	AMMONIUM SULFIDE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE
1336-21-6	<30	AMMONIA SOLUTION	NOT AVAILABLE	350 MG/KG RAT ORAL	NOT AVAILABLE

## Section 2A: ADDITIONAL INGREDIENT INFORMATION

**Note:** Balance: water (CAS# 7732-18-5).  
(supplier).  
CAS# 1336-21-6: TLV 18 mg/m3 (as ammonia).  
CAS# 12135-76-1 LD50 168 mg/kg rat oral.

### Section 3: PHYSICAL DATA

**Physical state:** Liquid.

**Appearance & odor:** Colourless to yellow.  
Sulfide odour.

**Odor threshold (ppm):** None

**Vapour pressure (mmHg):** 143

**Vapour density (air=1):** 0.60

**Volatiles (%)**

**By volume:** 92

**Evaporation rate (butyl acetate = 1):** Not available.

**Boiling point (°C):** 48.8–60

**Freezing point (°C):** Not available.

**pH:** 10.6

**Specific gravity @ 20 °C:** .97

**Solubility in water (%):** Soluble.

**Coefficient of water\oil dist.:** Not available.

### Section 4: FIRE & EXPLOSION DATA

**Flammability:** Not flammable.

**Conditions of flammability:** Surrounding fire.

**Extinguishing media:** Carbon dioxide, dry chemical, foam.  
Water spray.

**Special procedures:** Wear a positive–pressure, self–contained breathing apparatus and full protective equipment.

**Auto–ignition temperature (°C):** Not applicable.

**Flash point (°C), method:** Not applicable.

**Lower flammability (ammonia).  
limit (% vol):** 16

**Upper flammability (ammonia).  
limit (% vol):** 27

**Explosion Data**

**Sensitivity to static discharge:** Not applicable.

**Sensitivity to mechanical impact:** Not applicable.

**Hazardous combustion products:** Sulfur oxides (SO<sub>x</sub>).  
Ammonia (NH<sub>3</sub>).  
Hydrogen chloride (HCl).  
Nitrogen oxides (NO<sub>x</sub>).  
Hydrogen sulfide (H<sub>2</sub>S).

**Explosive power:** Not applicable.

### Section 5: REACTIVITY DATA

**Chemical stability:** Stable under normal conditions.

**Conditions of instability:** Extreme temperatures.  
Extreme heat.

**Hazardous polymerization:** Not available.

**Incompatible substances:** Acids  
Metals.  
Strong oxidizers.

**Hazardous decomposition products:** See hazardous combustion products.

### Section 6: TOXICOLOGICAL PROPERTIES

**Route of entry:** Skin contact, inhalation and ingestion.

Effects of acute exposure

**Eye contact:** Corrosive.  
Causes severe burns.

**Skin contact:** Corrosive.  
Causes severe burns.

**Inhalation:** Irritant.

**Ingestion:** Corrosive.  
Causes burns to mouth, throat, esophagus, stomach.

**Effects of chronic exposure:** Pre-existing eye, skin and respiratory disorders may be aggravated.

**LD50 of product, species & route:** Not available for mixture, see the ingredients section.

**LC50 of product, species & route:** Not available.

**Exposure limit of material:** Not available for mixture, see the ingredients section.

**Sensitization to product:** Not available.

**Carcinogenic effects:** Not listed as a carcinogen.

**Reproductive effects:** Not available.

**Teratogenicity:** Not available.

**Mutagenicity:** Not available.

**Synergistic materials:** Not available.

### Section 7: PREVENTATIVE MEASURES

#### Precautionary Measures

**Gloves/Type:**



Rubber gloves.

**Respiratory/Type:**



Wear a NIOSH approved respirator if TLV is exceeded.

**Eye/Type:**



Safety glasses.

**Footwear/Type:** Safety shoes per local regulations.

**Clothing/Type:**



Lab coat.

**Other/Type:** Eye wash facility should be in close proximity.  
Emergency shower should be in close proximity.

**Ventilation requirements:** Provide sufficient mechanical ventilation to maintain exposure below TLV.

**Leak/Spill:** Absorb with inert material.  
Wear appropriate protective equipment.  
Place in a closed container for disposal.  
Neutralize with dilute acid.

**Waste disposal:** In accordance with municipal, provincial and federal regulations.

**Handling procedures and equipment:** Avoid breathing vapors/mists.  
Use adequate ventilation.  
Wear personal protective equipment appropriate to task.  
Wash thoroughly after handling.  
Avoid contact with skin, eyes and clothing.  
Launder contaminated clothing prior to reuse.

**Storage requirements:** Keep out of direct sunlight.  
Store in a cool, dry and well ventilated area.

**Special shipping information:** See transportation information.

## Section 8: FIRST AID MEASURES

**Skin contact:** Remove contaminated clothing. Wash affected area with soap and water. Get medical attention.

**Eye contact:** Immediately flush eyes with running fresh water for a minimum of 20 minutes. Hold eyelids open during flushing. Obtain medical attention immediately.

**Inhalation:** Remove victim to fresh air.  
If irritation occurs, consult a physician.

**Ingestion:** Do not induce vomiting, seek medical attention.  
Never give anything by mouth to an unconscious person.  
Drink a large amount of water.

**Additional information:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any inaccuracies.

## Section 9: ADDITIONAL INFORMATION

**General note:** This material safety data sheet was prepared from information obtained from various sources, including product suppliers and the Canadian Center for Occupational Health and Safety.

**Data prepared by:** Lowry & Associates, div. of Chem–Aquascience, Inc  
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**Supplier MSDS date:** 2009/08/07

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