

# Material Safety Data Sheet

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** Hardness Solution #1

**Manufacturer** Pro Products, LLC  
502 Incentive Drive  
Fort Wayne, IN 46825

**Phone** 1-800-285-9176

**Emergency phone** 1-800-424-9300 (CHEMTREC)

**HMIS**

Health	3
Flammability	1
Reactivity	0

**Revision date** June 6, 2007

*regulations are met.*

### DOT SHIPPING INFORMATION:

Corrosive liquids, n.o.s. (hydrochloric acid, monoethanolamine), 8, UN1760, PG II, ERG #154

*Note: May be reclassified as a Consumer Commodity (ORM-D) If applicable DOT*

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredient (TWA)</u>	<u>CAS #</u>	<u>% wt.</u>	<u>OSHA PEL (TWA)</u> (ppm)	<u>ACGIH TLV</u> (ppm)
Monoethanolamine	141-43-5	30-35	3	3 (STEL = 6)
Hydrochloric Acid	7647-01-0	5-10	5 (Ceiling STEL)	2 (Ceiling STEL)
Disodium Magnesium Ethylenediaminetetraacetate	14402-88-1	<1	N/A	N/A
Water	7732-18-5	Balance	N/A	N/A

## 3. HAZARDS IDENTIFICATION

**Emergency overview** POISON! DANGER! CORROSIVE. Causes severe burns to the skin, eyes, respiratory tract and gastrointestinal tract. Material is extremely destructive to all body tissues. May be harmful or fatal if swallowed. Harmful if inhaled.

**Primary routes of exposure** Eyes, skin and lungs

**Effects of acute exposure****Eyes**

Causes severe irritation or burns to the eyes. May cause irreversible eye injury. Symptoms may include pain, excessive blinking and tear production, redness and swelling of the eye, and impaired vision. Severe eye damage may cause blindness.

**Skin**

Causes irritation. May cause severe burns and possible tissue destruction. Symptoms may include redness, pain, swelling, and blister formation.

**Ingestion**

Causes burning of the mouth, throat, esophagus, stomach and digestive tract. Symptoms may include abdominal and chest pain, nausea, vomiting, diarrhea, thirst, weakness, and collapse. May be fatal if swallowed.

**Inhalation**

Causes severe irritation of the upper respiratory tract. Symptoms may include coughing, dizziness, drowsiness, euphoria, loss of coordination, disorientation, headache, nausea or vomiting.

**Effects of chronic exposure**

Prolonged or repeated overexposure may result in lung damage or dermatitis. Prolonged or repeated ingestion of monoethanolamine (product ingredient) has caused kidney and liver damage in laboratory animals.

**Pre-existing conditions**

Persons with pre-existing skin disorders (i.e. dermatitis) or eye disease may be more susceptible to the effects of this substance. Overexposure to vapor, dust or mist may aggravate existing respiratory conditions such as asthma or bronchitis.

**Carcinogenicity**

This product has not been identified as a carcinogen or probable carcinogen by: NTP, IARC Monographs, or OSHA.

**4. FIRST AID MEASURES****Eyes**

Flush eyes with water for at least 15-20 minutes. Seek medical attn. immediately. **DO NOT INDUCE VOMITING.** Drink plenty of water. Never give anything by mouth to an unconscious person. Seek medical attention immediately.

**Ingestion**

Remove to fresh air. Give artificial respiration if necessary. Seek medical

**Inhalation**  
attention.**Skin**

Immediately flush skin for at least 15-20 minutes. Remove contaminated clothing and shoes. Wash clothing before use. Seek medical attention immediately.

**5. FIRE FIGHTING MEASURES****Flash point**

N/A

**Flammability**

Product is not considered a fire hazard.

**Extinguishing media**

Use water spray, dry chemical, foam or carbon dioxide.

**Special procedures**

Avoid breathing fumes; keep upwind.

**Unusual hazards**

May react with metals or heat to release flammable hydrogen gas.

**6. ACCIDENTAL RELEASE MEASURES**

Ventilate area of spill or leak and use appropriate PPE including respiratory protection if necessary. Contain and recover liquid when possible or absorb with an inert material (i.e. vermiculite, dry sand, earth) and place in an appropriate waste container. Dispose of spilled materials in accordance with local, State and Federal regulations.

**7. HANDLING & STORAGE**

Use with adequate ventilation. Do not breathe vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Wash thoroughly after using product. Store in a cool, dry and well-ventilated location. Store in a tightly closed container. Store away from incompatible materials (See Section 10).

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Respiratory protection**

Use appropriate NIOSH approved respirator if exposures exceed PELs.

**Ventilation**

Local ventilation if adequate or chemical fume hood.

**Protective gloves**

Use chemical impervious gloves.

**Eye protection**

Safety glasses or goggles with face shield if splash potential exists.

**Other protective clothing**  
contact.

Wear impervious protective clothing, as appropriate, to prevent skin

**Hygienic practices**

Maintain good housekeeping practices.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state</b>	Clear, colorless liquid	<b>Vapor pressure (Water=1)</b>	1.1
<b>Odor</b>	No odor	<b>Melting point</b>	N/A
<b>pH (aqueous susp.)</b>	10.0	<b>Vapor density (Air=1)</b>	N/A
<b>Boiling point</b>	149 °C	<b>Solubility in water</b>	Soluble
<b>Specific gravity</b>	1.1	<b>Evaporation rate (Butyl Acetate=1)</b>	0.2-0.3

## 10. Chemical Stability and Reactivity Information

<b>Chemical stability</b>	Stable under ordinary conditions of use and storage.
<b>Conditions to avoid</b>	Heat, strong acids, oxidizers, metals, cyanides, sulfides, sulfites, & formaldehyde.
<b>Hazardous decomposition Products</b>	Ammonia, nitrogen oxides, oxides of carbon, hydrogen chloride fumes, & explosive hydrogen gas.
<b>Hazardous polymerization</b>	Will not occur.

**Prepared by:** SES, 3807 Transportation Drive, Fort Wayne, IN 46818, 1-800-654-4915

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