




# Material Safety Data Sheet

This MSDS is prepared in accordance with OSHA 29 CFR 1910.1200

 <b>WHMIS (Pictograms)</b>	<b>WHMIS Class D-2A: Material causing other toxic effects (VERY TOXIC). WHMIS Class E: Corrosive liquid.</b>	<b>HCS CLASS: Corrosive liquid.</b>  <b>HCS</b>
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## Section 1. Chemical Product and Company Identification

<b>Product Name/ Trade name</b>	<b>AC114</b>	<b>Code</b>	<b>114</b>
<b>Synonym</b>	Multi-Purpose Acid Cleaner/Delimer	<b>Version Number</b>	
<b>Chemical Family</b>	Not available.	<b>Validation Date</b>	3/3/2010
<b>Chemical Formula</b>	Not applicable.	<b>Print Date</b>	3/3/2010
<b>Manufacturer/ Supplier</b>	Betco Corporation 1001 Brown Avenue Toledo, Oh 43607 (419) 241-2156	<b>In Case of Emergency</b>	Chemtrec (800) 424-9300
<b>TSCA</b>	TSCA Inventory: All components listed or are exempt from listing.		
<b>DSL/ NDSL</b>	All components listed unless noted elsewhere on this MSDS		

**Protective Clothing**



## Section 2. Composition and Information on Ingredients

Name	CAS #	% by Weight	Exposure Limits	LC <sub>50</sub> /LD <sub>50</sub>
Hydrochloric Acid	7647-01-0	10-15	STEL: 5	Not available.

## Section 3. Hazards Identification

<b>Potential Acute Health Effects</b>	Corrosive to skin and eyes on contact. Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath.
<b>Potential Chronic Health Effects</b>	Severe over-exposure can produce lung damage, choking, unconsciousness or death.
<b>Carcinogenic Effects</b>	Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

## Section 4. First Aid Measures

<b>Eye Contact</b>	Hold eye open and rinse slowly and thoroughly with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor immediately for treatment advice.
<b>Skin Contact</b>	Rinse skin with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for further treatment advice.
<b>Inhalation</b>	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration., preferably mouth to mouth if possible.
<b>Ingestion</b>	Call a poison control center immediately for treatment advice. Have person sip a glass of water if able to swallow. Do NOT induce vomiting unless instructed to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person

### Section 5. Fire Fighting Measures

Products of Combustion Not available.

Fire Fighting Media and Instructions N/A

Special Remarks on Fire Hazards N/A

Special Remarks on Explosion Hazards N/A

### Section 6. Accidental Release Measures

Small Spill and Leak Chemical anti-splash goggles.

Large Spill and Leak Absorb with an inert material and put the spilled material in an appropriate waste disposal.

Personal Protection in Case of a Large Spill Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

### Section 7. Handling and Storage

Precautions Keep container dry. Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not breathe gas, fumes, vapor or spray. Never add water to this product. Wear suitable protective clothing. If you feel unwell, seek medical attention and show the label when possible.

Incompatibility Strong alkalis, most metals, bleach.

Storage Corrosive materials should be stored in a separate safety storage cabinet or room. Keep out of reach of children.

### Section 8. Exposure Controls/Personal Protection

Engineering Controls Good general ventilation should be sufficient to control airborne levels.

Personal Protection

*Eyes* Splash goggles.

*Body* Lab coat.

*Respiratory* Wear appropriate respirator when ventilation is inadequate.

*Hands* Gloves (impervious).

Protective Clothing (Pictograms)



Exposure Limits Not available.

### Section 9. Physical and Chemical Properties

Physical State and Appearance Liquid.

Odor Characteristic.

Molecular Weight Not applicable.

Taste Not available.

pH <1 [Acidic.]

Color Blue.

Boiling/Condensation Point 212°F initial

Melting/Freezing Point Not available.

Critical Temperature Not available.

<b>Instability Temperature</b>	Not available.
<b>Specific Gravity</b>	1.07 (Water = 1)
<b>Vapor Pressure</b>	26mm Hg @ 68°F
<b>Vapor Density</b>	>1 (Air = 1)
<b>Volatility</b>	95
<b>VOC</b>	Not available.
<b>Evaporation Rate</b>	<1 compared to Water
<b>Dispersion Properties</b>	See solubility in water.
<b>Solubility</b>	not available
<b>The Product is:</b>	May be combustible at high temperature.
<b>Auto-ignition Temperature</b>	Not available.
<b>Flash Points</b>	CLOSED CUP: >98.889°C (210°F).
<b>Flammable Limits</b>	Not available.
<b>Fire Hazards in Presence of Various Substances</b>	No specific information is available in our database regarding the flammability of this product in presence of various materials.
<b>Explosion Hazards in Presence of Various Substances</b>	Not applicable

### **Section 10. Stability and Reactivity Data**

<b>Stability</b>	The product is stable.
<b>Incompatibility with Various Substances</b>	Strong alkalis, most metals, bleach.
<b>Hazardous Decomposition Products</b>	Will not occur.

### **Section 11. Toxicological Information**

<b>Routes of Entry</b>	Absorbed through skin. Eye contact. Inhalation. Ingestion.
<b>Toxicity to Animals</b>	LD50: Not available. LC50: Not available.
<b>Acute Effects on Humans</b>	<p><i>Eyes</i> Severe eye irritant. Liquid and mist can cause tearing, possible swelling of the conjunctiva, and corneal injury.</p> <p><i>Skin</i> Skin irritant. Prolonged or repeated exposure can cause dermatitis.</p> <p><i>Inhalation</i> May be irritating to mucous membranes of the nose, throat, and lungs.</p> <p><i>Ingestion</i> May be irritating or corrosive to the mouth, throat, and upper gastrointestinal tract. Large doses can cause vomiting.</p>
<b>Chronic Effects on Humans</b>	Severe over-exposure can produce lung damage, choking, unconsciousness or death.
<b>Special Remarks on Toxicity to Animals</b>	No additional remark.

Special Remarks on Chronic Effects on Humans No additional remark.

### Section 12. Ecological Information

Ecotoxicity Not available.

BOD5 and COD Not available.

Products of Biodegradation Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation Not available.

Special Remarks on the Products of Biodegradation No additional remark.

### Section 13. Disposal Considerations

Waste Information Any method in accordance with applicable laws.

Waste Stream Not available.

### Section 14. Transport Information

DOT (U.S.A) (Pictograms)



TDG Classification Class 8: Corrosive material



PIN UN, Proper Shipping Name, PG Shipping name: Corrosive liquids n.o.s. UNNA: UN1760 PG: II

Maritime Transportation Not available.

Special Provisions for Transport Not available.

### Section 15. Other Regulatory Information and Pictograms

WHMIS (Classification) WHMIS Class D-2A: Material causing other toxic effects (VERY TOXIC). WHMIS Class E: Corrosive liquid.



Regulatory Lists No products were found.

Other Regulations OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications HCS (U.S.A.) HCS CLASS: Corrosive liquid.

**USA Regulatory Lists** California prop. 65: This product contains the following ingredients for which the State of California has found to cause reproductive harm (female) which would require a warning under the statute: Ethylene Oxide <1 ppm  
 California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Ethylene Oxide <1 ppm  
 Massachusetts RTK: Ethylene Oxide  
 SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Hydrochloric Acid

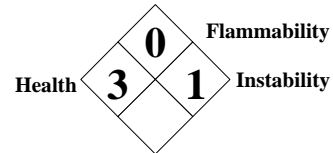
**DSD (EEC)** R35- Causes severe burns.

**International Regulations Lists** No products were found.

**Hazardous Material Information System (U.S.A.)**

Health	3
Flammability	0
Physical Hazard	1

**National Fire Protection Association (U.S.A.)**



The Hazard Ranking systems presented on this MSDS provide only a quick reference for hazard information. The ENTIRE MSDS must be consulted to determine any specific hazards, First Aid measures, and PPE associated with this product.

**Section 16. Other Information**

Validated by CRushton on 3/3/2010.

Verified by CRushton.

Printed 3/3/2010.

**Information Contact Betco Corporation**  
 1001 Brown Avenue  
 Toledo, Ohio 43607

Notice to Read:

*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.  
 Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.*