




# Material Safety Data Sheet

This MSDS is prepared in accordance with OSHA 29 CFR 1910.1200

|   |                            |                              |
|---|----------------------------|------------------------------|
|  | CLASS E: Corrosive liquid. | HCS Class: Corrosive liquid. |
| WHMIS (Pictograms)  | WHMIS (Classification)     | HCS                          |

## Section 1. Chemical Product and Company Identification

|   |  |                         |                         |
|---|--|-------------------------|-------------------------|
| Product Name/<br>Trade name   | <b>MAD</b>   | Code                    | 135                     |
| Synonym   | Mild Acid Detergent  | CAS #                   | Mixture.                |
| Chemical Family   | Not available.   | Validation Date         | 3/31/2006               |
| Chemical Formula  | Not applicable.  | Print Date              | 3/31/2006               |
| Manufacturer/ Supplier  | Betco Corporation<br>1001 Brown Avenue<br>Toledo, Oh 43607<br>(419) 241-2156 | In Case of<br>Emergency | Chemtrec (800) 424-9300 |
| TSCA  | TSCA Inventory: All components listed or are exempt from listing.            |                         |                         |
| DSL/ NDSL   | All components listed unless noted elsewhere on this MSDS                    |                         |                         |
| <b>Protective Clothing</b>  |  |                         |                         |
|  |  |                         |                         |

## Section 2. Composition and Information on Ingredients

| Name            | CAS #     | % by Weight | Exposure Limits   | LC <sub>50</sub> /LD <sub>50</sub> |
|-----------------|-----------|-------------|---|------------------------------------|
| Phosphoric Acid | 7664-38-2 | 30-35       | TWA: 1 (mg/m <sup>3</sup> )<br>TWA: 1 (mg/m <sup>3</sup> ) from<br>OSHA (PEL) [United<br>States]<br>STEL: 3 (ppm) | Not available.                     |

## Section 3. Hazards Identification

|                                  |   |
|----------------------------------|---|
| Potential Acute Health Effects   | 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. |
| Potential Chronic Health Effects | Prolonged exposure may result in skin burns and ulcerations. Over-exposure by inhalation may cause respiratory irritation. Severe over-exposure can result in death.  |
| Carcinogenic Effects             | Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.  |

## Section 4. First Aid Measures

|              |  |
|--------------|--|
| Eye Contact  | Corrosive to eyes and skin. Flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek immediate medical attention.          |
| Skin Contact | Corrosive to eyes and skin. Remove contaminated clothing. Wash gently and thoroughly the contaminated skin with running water and non abrasive soap. Seek medical attention. |
| Inhalation   | Get to fresh air. Seek medical attention if symptoms persist.  |

|                  |   |
|------------------|---|
| <b>Ingestion</b> | Corrosive to mouth, throat and gastrointestinal system. Do not induce vomiting. Give large quantities of water or milk. Seek medical attention immediately. |
|------------------|---|

### Section 5. Fire Fighting Measures

|   |                |
|---|----------------|
| <b>Products of Combustion</b>               | Not available. |
| <b>Fire Fighting Media and Instructions</b> | N/A            |
| <b>Special Remarks on Fire Hazards</b>      | N/A            |
| <b>Special Remarks on Explosion Hazards</b> | N/A            |


### Section 6. Accidental Release Measures

|   |  |
|---|--|
| <b>Small Spill and Leak</b>                         | Absorb with an inert material and place in an appropriate waste disposal container.          |
| <b>Large Spill and Leak</b>                         | Absorb with an inert material and put the spilled material in an appropriate waste disposal. |
| <b>Personal Protection in Case of a Large Spill</b> | Full suit. Boots. Gloves (impervious). Face shield.  |

### Section 7. Handling and Storage

|                        |   |
|------------------------|---|
| <b>Precautions</b>     | Ensure that eyewash station and safety shower is proximal to the work-station location. Avoid contact with skin and eyes. Do not breathe gas/fumes/ vapor/spray.  |
| <b>Incompatibility</b> | Strong alkalis, oxidizers, reactive metals.   |
| <b>Storage</b>         | Corrosive materials should be stored in a separate safety storage cabinet or room. Keep out of reach of children. This product should be stored AWAY from oxidizing materials and strong bases. Not for use or storage in or around the home. |

### Section 8. Exposure Controls/Personal Protection

|   |  |
|---|--|
| <b>Engineering Controls</b>             | Good general ventilation should be sufficient to control airborne levels.  |
| <b>Personal Protection</b>              |  |
| <i>Eyes</i>                             | Splash goggles.  |
| <i>Body</i>                             | Long Pants and Long Sleeves to avoid skin contact.   |
| <i>Respiratory</i>                      | Wear appropriate respirator when ventilation is inadequate.  |
| <i>Hands</i>                            | Gloves (impervious).   |
| <b>Protective Clothing (Pictograms)</b> |   |
| <b>Exposure Limits</b>                  | <p><b>Phosphoric Acid</b></p> <p>TWA: 1 (mg/m<sup>3</sup>)</p> <p>TWA: 1 (mg/m<sup>3</sup>) from OSHA (PEL) [United States]</p> <p>STEL: 3 (mg/m<sup>3</sup>)</p> <p>Consult local authorities for acceptable exposure limits.</p> |

### Section 9. Physical and Chemical Properties

|  |   |              |           |
|--|---|--------------|-----------|
| <b>Physical State and Appearance</b>                       | Liquid.                                 | <b>Odor</b>  | Odorless. |
| <b>Molecular Weight</b>                                    | Not applicable.                         | <b>Taste</b> |           |
| <b>pH</b>  | <1 [Acidic.]                            | <b>Color</b> | Yellow.   |
| <b>Boiling/Condensation Point</b>                          | 218°F initial                           |              |           |
| <b>Melting/Freezing Point</b>                              | Not available.                          |              |           |
| <b>Critical Temperature</b>                                | Not available.                          |              |           |
| <b>Instability Temperature</b>                             | Not available.                          |              |           |
| <b>Specific Gravity</b>                                    | 1.18 (Water = 1)                        |              |           |
| <b>Vapor Pressure</b>                                      | <20mm Hg @ 68°F                         |              |           |
| <b>Vapor Density</b>                                       | >1 (Air = 1)                            |              |           |
| <b>Volatility</b>  | 60                                      |              |           |
| <b>VOC</b>   | Not available.                          |              |           |
| <b>Evaporation Rate</b>                                    | <1 compared to Water                    |              |           |
|  |   |              |           |
|  |   |              |           |
|  |   |              |           |
| <b>Dispersion Properties</b>                               | See solubility in water.                |              |           |
| <b>Solubility</b>  | Easily soluble in cold water.           |              |           |
| <b>The Product is:</b>                                     | May be combustible at high temperature. |              |           |
| <b>Auto-ignition Temperature</b>                           | Not available.                          |              |           |
| <b>Flash Points</b>  | Not available.                          |              |           |
| <b>Flammable Limits</b>                                    | Not available.                          |              |           |
| <b>Fire Hazards in Presence of Various Substances</b>      | Not available.                          |              |           |
| <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, oxidizers, reactive metals. |
| <b>Hazardous Decomposition Products</b>        | not available                               |

### Section 11. Toxicological Information

|  |   |
|--|---|
| Routes of Entry                              | Absorbed through skin. Eye contact. Inhalation. Ingestion.  |
| Toxicity to Animals                          | Acute oral toxicity (LD50): 4610 mg/kg [Rat]. (Nonionic Surfactant).  |
| Acute Effects on Humans                      | <p><i>Eyes</i> Severe eye irritant. Liquid and mist may burn or injure the eyes.</p> <p><i>Skin</i> Severe skin irritant. Prolonged or repeated contact can cause chemical burns or 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 and throat. Can cause nausea and vomiting.</p> |
| Chronic Effects on Humans                    | Prolonged exposure may result in skin burns and ulcerations. Over-exposure by inhalation may cause respiratory irritation. Severe over-exposure can result in death.  |
| Special Remarks on Toxicity to Animals       | Not available.  |
| Special Remarks on Chronic Effects on Humans | Not available.  |

### Section 12. Ecological Information

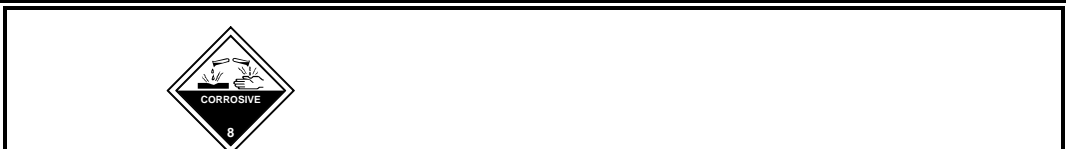
|   |                |
|---|----------------|
| Ecotoxicity                                       | Not available. |
| BOD5 and COD                                      | Will not occur |
| Products of Biodegradation                        | Not available. |
| Toxicity of the Products of Biodegradation        | Not available. |
| Special Remarks on the Products of Biodegradation | Not available. |

### Section 13. Disposal Considerations

|                   |  |
|-------------------|--|
| Waste Information | Waste must be disposed of in accordance with federal, state and local environmental control regulations. |
| 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) 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

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Phosphoric Acid  
SARA 313 toxic chemical notification and release reporting: Phosphoric Acid

DSD (EEC)

R35- Causes severe burns.

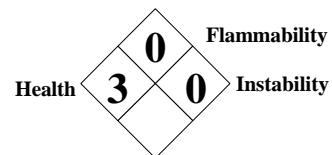
International Regulations Lists

No products were found.

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

|                 |   |
|-----------------|---|
| Health          | 3 |
| Flammability    | 0 |
| Physical Hazard | 0 |

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.

Specific Hazard

### Section 16. Other Information

Validated by CRushton on 3/31/2006.

Verified by CRushton.

Printed 3/31/2006.

Information Contact Betco Corporation  
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Toledo, Ohio 43607

#### Notice to Reader

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*Continued on Next Page*