Material Safety Data Sheet

This MSDS is prepared in accordance with OSHA 29 CFR 1910.1200

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

Section 1. Chemical Product and Company Identification

Product Name/ Trade name	**MAD**
Synonym	Mild Acid Detergent
Chemical Family	Not available.
Chemical Formula	Not applicable.
Manufacturer/ Supplier	Betco Corporation 1001 Brown Avenue Toledo, Oh 43607 (419) 241-2156
TSCA	**TSCA Inventory: All components listed or are exempt from listing.**
DSL/ NDSL	**All components listed unless noted elsewhere on this MSDS**

Code	135
CAS #	Mixture.
Validation Date	**8/7/2009**
Print Date	8/7/2009
In Case of Emergency	Chemtrec (800) 424-9300

Protective Clothing

Section 2. Composition and Information on Ingredients

Name	CAS #	% by Weight	Exposure Limits	LC_{50}/LD_{50}
Phosphoric Acid	7664-38-2	20 - 40	TWA: 1 mg/m^3 **OSHA (United States).** TWA: 1 mg/m^3 STEL: 3 mg/m^3	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.
Ingestion	Corrosive to mouth, throat and gastrointestinalsystem. Do not induce vomiting. Give large quantities of water or milk.Seek medical attention immediately.

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	Absorb with an inert material and place in an appropriate waste disposal container.
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	Full suit. Boots. Gloves (impervious). Face shield.

Section 7. Handling and Storage

Precautions	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.
Incompatibility	Strong alkalis, oxidizers, reactive metals.
Storage	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

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

Section 9. Physical and Chemical Properties

Physical State and Appearance	Liquid.
Molecular Weight	Not applicable.
pH	<1 [Acidic.]
Boiling/Condensation Point	218°F initial
Melting/Freezing Point	Not available.

Odor	Odorless.
Taste	
Color	Clear to Yellowish.

Critical Temperature	Not available.
Instability Temperature	Not available.
Specific Gravity	1.12 (Water = 1)
Vapor Pressure	<20mm Hg @ 68°F
Vapor Density	>1 (Air = 1)
Volatility	60
VOC	Not available.
Evaporation Rate	<1 compared to Water
Dispersion Properties	See solubility in water.
Solubility	Easily soluble in cold water.
The Product is:	May be combustible at high temperature.
Auto-ignition Temperature	Not available.
Flash Points	Not available.
Flammable Limits	Not available.
Fire Hazards in Presence of Various Substances	Not available.
Explosion Hazards in Presence of Various Substances	Not applicable

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Incompatibility with Various Substances	Strong alkalis, oxidizers, reactive metals.
Hazardous Decomposition Products	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	
Eyes	Severe eye irritant. Liquid and mist may burn or injure the eyes.
Skin	Severe skin irritant. Prolonged or repeated contact can cause chemical burns or dermatitis.
Inhalation	May be irritating to mucous membranes of the nose, throat, and lungs.
Ingestion	May be irritating or corrosive to the mouth and throat. Can cause nausea and vomiting.
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.

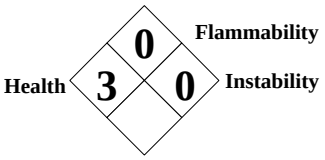
USA Regulatory Lists

	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.

Section 16. Other Information

Validated by CRushton on 8/7/2009.

Verified by CRushton.

Printed 8/7/2009.

Information Contact **Betco Corporation**
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Toledo, Ohio 43607

Notice to Reade

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.

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