





# Material Safety Data Sheet

This MSDS is prepared in accordance with OSHA 29 CFR 1910.1200

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

## Section 1. Chemical Product and Company Identification

<b>Product Name/ Trade name</b>	<b>Es-Steam</b>	<b>Code</b>	<b>402</b>
<b>Synonym</b>	Extraction Cleaner	<b>CAS #</b>	Not applicable.
<b>Chemical Family</b>	Not available.	<b>Validation Date</b>	3/2/2007
<b>Chemical Formula</b>	Not applicable.	<b>Print Date</b>	3/23/2007
<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		
		<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>
Anionic Surfactant	5324-84-5	<15	Not available.	Not available.
Potassium Metasilicate	1312-76-1	<15	Not available.	Not available.
Tetrasodium salt of ethylenediaminetetraacetic acid	64-02-8	<10	Not available.	ORAL (LD50): Acute: 3030 mg/kg [Rat].
Potassium Hydroxide	1310-58-3	1-5	Not available.	Not available.

## Section 3. Hazards Identification

<b>Potential Acute Health Effects</b>	May cause severe eye irritation. Skin contact can produce inflammation and blistering. Irritating to the mucous membranes of the nose, throat and lungs. Harmful if swallowed.
<b>Potential Chronic Health Effects</b>	Repeated skin exposure can produce local skin destruction, or dermatitis.
<b>Carcinogenic Effects</b>	Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

## Section 4. First Aid Measures

<b>Eye Contact</b>	Flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek immediate medical attention.
<b>Skin Contact</b>	Remove contaminated clothing. Flush affected area with water. Seek medical attention if irritation persists.
<b>Inhalation</b>	Get to fresh air. Seek medical attention if irritation persists.
<b>Ingestion</b>	Do not induce vomiting. Drink a large quantity of water. 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** 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** After handling, always wash hands thoroughly with soap and water. Avoid contact with skin and eyes. DO NOT ingest.

**Incompatibility** Strong acids.

**Storage** Keep out of reach of children. Keep only in the original container. For Institutional and Commercial Use

### Section 8. Exposure Controls/Personal Protection

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

**Personal Protection**

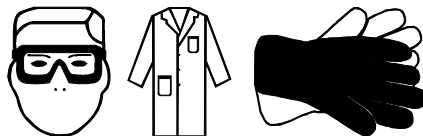
*Eyes* Splash goggles.

*Body* No special protective clothing is required.

*Respiratory* Wear appropriate respirator when ventilation is inadequate.

*Hands* Gloves.

**Protective Clothing (Pictograms)**



**Exposure Limits** Not available.

### Section 9. Physical and Chemical Properties

**Physical State and Appearance** Liquid. (Hazy liquid.)

**Odor** Pleasant. (Slight.)

**Molecular Weight** Not applicable.

**Taste** Not available.

**pH** 11.8 to 12 to 13.0 [Basic.]

**Color** Green.

**Boiling/Condensation Point** 214°F initial

**Melting/Freezing Point** Not available.

**Critical Temperature** Not available.

**Instability Temperature** Not available.

**Specific Gravity** 1.1 (Water = 1)

<b>Vapor Pressure</b>	20mm Hg @ 68°F
<b>Vapor Density</b>	>1 (Air = 1)
<b>Volatility</b>	75
<b>VOC</b>	Not available.
<b>Evaporation Rate</b>	<1
<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>	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 acids.
<b>Hazardous Decomposition Products</b>	Will not occur.

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

<b>Routes of Entry</b>	Eye contact.
<b>Toxicity to Animals</b>	Acute oral toxicity (LD50): 3030 mg/kg [Rat]. (Tetrasodium EDTA).
<b>Acute Effects on Humans</b>	<p><i>Eyes</i> Severe eye irritant. Liquid and mist may damage the eyes causing corneal injury.</p> <p><i>Skin</i> Skin irritant. May cause redness or swelling. Prolonged or repeated contact may cause dermatitis.</p> <p><i>Inhalation</i> Vapors may be irritating to mucous membranes in the nose, throat, and lungs.</p> <p><i>Ingestion</i> Irritating to the mouth, throat, and gastrointestinal system. Large doses may cause vomiting and diarrhea.</p>
<b>Chronic Effects on Humans</b>	Repeated skin exposure can produce local skin destruction, or dermatitis.
<b>Special Remarks on Toxicity to Animals</b>	No additional remark.
<b>Special Remarks on Chronic Effects on Humans</b>	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 TDG Class 8: Corrosive liquid.



PIN UN, Proper Shipping Name, PG 1760 Corrosive liquid n.o.s.

Maritime Transportation Not available.

Special Provisions for Transport Not applicable.

### Section 15. Other Regulatory Information and Pictograms

WHMIS (Classification) 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

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Potassium Hydroxide: immediate health hazard

DSD (EEC)

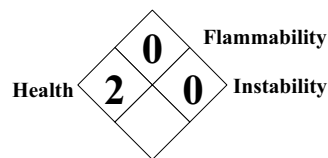
International Regulations Lists

No products were found.

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

Health	2
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 3/2/2007.

Verified by CRushton.

Printed 3/23/2007.

**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.*

Validated on 3/2/2007.

**Es-Steam**

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