




Material Safety Data Sheet

This MSDS is prepared in accordance with OSHA 29 CFR 1910.1200

	D-2B	HCS Class: Irritating substance.
WHMIS (Pictograms)	WHMIS (Classification)	HCS
Section 1. Chemical Product and Company Identification		
Product Name/ Trade name	Es-Steam (At Dilution)	Code 4 0 2 (A t Dilution)
Synonym	Extraction Cleaner	CAS # Not applicable.
Chemical Family	Not available.	Validation Date 8/22/2005
Chemical Formula	Not applicable.	Print Date 8/22/2005
Manufacturer/ Supplier	Betco Corporation 1001 Brown Avenue Toledo, Ohio 43607 (419) 241-2156	In Case of 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	
		Protective Clothing

Section 2. Composition and Information on Ingredients				
Name	CAS #	% by Weight	Exposure Limits	LC ₅₀ /LD ₅₀
Water	7732-18-5	>90	Not available.	Not available.
Anionic Surfactant	5324-84-5	0-5	Not available.	Not available.
Potassium Metasilicate	1312-76-1	0-5	Not available.	Not available.
Tetrasodium salt of ethylenediaminetetraacetic acid	64-02-8	0-5	Not available.	ORAL (LD50): Acute: 3030 mg/kg [Rat].
Nonionic Surfactant	9016-45-9	0-5	Not available.	Not available.
Nonionic Surfactant	66455-15-0	0-5	Not available.	Not available.
Propylene Glycol	57-55-6	0-5	Not available.	ORAL (LD50): Acute: 5000 mg/kg [Rat].
Perfume Oil	N/A	0-5	Not available.	Not available.
Dye	N/A	0-5	Not available.	Not available.

Section 3. Hazards Identification	
Potential Acute Health Effects	Eye irritant. Skin Irritant.
Potential Chronic Health Effects	Repeated skin exposure can produce local skin destruction, or dermatitis.
Carcinogenic Effects	Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

Section 4. First Aid Measures

Eye Contact	Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water. Seek medical attention if irritation persists.
Skin Contact	Remove contaminated clothing. Flush affected area with water. Seek medical attention if irritation persists.
Inhalation	Get to fresh air. Seek medical attention if irritation persists.
Ingestion	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	
<i>Eyes</i>	Eye protection is generally not required under normal, intended conditions of product use applicable to end-use solution. Eye protection should be worn in instances where splashing may occur.
<i>Body</i>	No special protective clothing is required.
<i>Respiratory</i>	A respirator is not needed under normal and intended conditions of product use.
<i>Hands</i>	Gloves are generally not required under normal, intended conditions of product use applicable to the end use solution. Hands should be thoroughly washed prior to eating, smoking, or applying cosmetics. Persons with skin conditions, or sensitive skin should wear gloves when using this product.
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 to 12 [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)		
Vapor Pressure	20mm Hg @ 68°F		
Vapor Density	>1 (Air = 1)		
Volatility	75		
VOC	Not available.		
Evaporation Rate	<1		
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	No specific information is available in our database regarding the flammability of this product in presence of various materials.		
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 acids.
Hazardous Decomposition Products	Will not occur.

Section 11. Toxicological Information

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

Section 12. Ecological Information

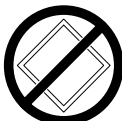
Ecotoxicity	Not available.
BOD5 and COD	Not available.
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	Not available.
Special Remarks on the Products of Biodegradation	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 Not controlled under TDG (Canada).



PIN UN, Proper Shipping Name, PG Not applicable.

Maritime Transportation Not available.

Special Provisions for Transport Not applicable.

Section 15. Other Regulatory Information and Pictograms

WHMIS (Classification) D-2B



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: Irritating substance.

USA Regulatory Lists

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

DSD (EEC)

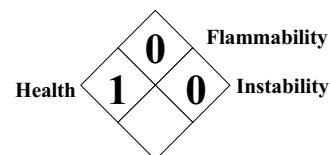
International Regulations Lists

No products were found.

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

Health	1
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 8/22/2005.

Verified by CRushton.

Printed 8/22/2005.

Information Contact Betco Corporation
1001 Brown Avenue
Toledo, Ohio 43607

Notice to Reader

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 8/22/2005.

Es-Steam (At Dilution)

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