




Material Safety Data Sheet

This MSDS is prepared in accordance with OSHA 29 CFR 1910.1200

 WHMIS (Pictograms)	Not controlled under WHMIS (Canada). WHMIS (Classification)	Not controlled under the HCS (United States). HCS
---	--	--

Section 1. Chemical Product and Company Identification

Product Name/ Trade name	E-2 Hand Cleaner	Code	170
Synonym	Food Industry Hand Cleaner	CAS #	Mixture.
Chemical Family	N/A	Validation Date	5/5/2003
Chemical Formula	N/A	Print Date	3/27/2004
Manufacturer/ Supplier	Betco Corporation 1001 Brown Avenue Toledo, Oh 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
1) Water	7732-18-5	0-100	Not available.	Not available.
2) Quaternary Ammonium Chloride	68391-01-5	0-5	Not available.	Not available.
3) Cocamidopropyl Betaine	61789-40-0	0-5	Not available.	Not available.
4) Cocoamidopropylamine Oxide	68155-09-9	0-5	Not available.	Not available.
5) PEG-6 Cocamide	61791-08-0	0-5	Not available.	Not available.
6) Hydroxy Ethyl Cellulose	9004-62-0	0-5	Not available.	Not available.
7) Propylene Glycol	57-55-6	0-5	Not available.	ORAL (LD50): Acute: 5000 mg/kg [Rat].
8) Nonionic Surfactant	61788-90-7	0-5	Not available.	ORAL (LD50): Acute: 4610 mg/kg [Rat].
9) Amphoteric Surfactant	68298-20-4	0-5	Not available.	Not available.

Section 3. Hazards Identification

Potential Acute Health Effects	No specific information is available in our database regarding the acute toxic effects of this material for humans.
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	In case of contact with eyes, rinse immediately with plenty of water.
Skin Contact	No specific data.
Inhalation	No specific data.
Ingestion	Have conscious person drink several glasses of water or milk. Seek medical attention.

Section 5. Fire Fighting Measures

Products of Combustion	Not available.
Fire Fighting Media and Instructions	Non-flammable substance.
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	Gloves. Safety glasses.

Section 7. Handling and Storage

Precautions	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 ingest. Do not breathe gas/fumes/ vapor/spray. If ingested, seek medical advice immediately and show the container or the label.
Incompatibility	No incompatible product according to our data base.
Storage	Keep out of reach of children. Keep container tightly closed. 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>	Safety glasses.
<i>Body</i>	No special protective clothing is required.
<i>Respiratory</i>	Not applicable.
<i>Hands</i>	Not applicable.
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	
pH	7 to 8 [Basic.]	Color	Colorless.
Boiling/Condensation Point	212°F initial		
Melting/Freezing Point	Not available.		
Critical Temperature	Not available.		
Instability Temperature	Not available.		
Specific Gravity	1 (Water = 1)		
Vapor Pressure	20mm Hg @ 68°F		
Vapor Density	>1 (Air = 1)		
Volatility	85		
VOC	Not available.		
Evaporation Rate	<1		
Dispersion Properties	See solubility in water.		
Solubility	Soluble		
The Product is:	May be combustible at high temperature.		
Auto-ignition Temperature	Not available.		
Flash Points	None to Boiling		
Flammable Limits	N/A		
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	No incompatible product according to our data base.
Hazardous Decomposition Products	None Known

Section 11. Toxicological Information

Routes of Entry	Absorbed through skin. Eye contact. Ingestion.
Toxicity to Animals	Acute oral toxicity (LD50): 4610 mg/kg [Rat]. (Nonionic Surfactant).
Acute Effects on Humans	<i>Eyes</i> Irritant. <i>Skin</i> Slightly irritating <i>Inhalation</i> According to our data base, the product will not easily enter the human body. <i>Ingestion</i> May cause gastrointestinal discomfort. May cause nausea, vomiting and diarrhea.
Chronic Effects on Humans	Repeated skin exposure can produce local skin destruction, or dermatitis.
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	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	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 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) Not controlled under WHMIS (Canada). 

Regulatory Lists No products were found.

Other Regulations Not available. or of its ingredients

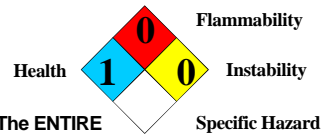
Other Classifications

HCS (U.S.A.)	Not controlled under the HCS (United States).
USA Regulatory Lists	
DSD (EEC)	This product is not classified according to the EU regulations.
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.

Section 16. Other Information

Validated by CRushton on 5/5/2003. Verified by CRushton.
Printed 3/27/2004.

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.