Material Safety Data Sheet

WHMIS (Pictograms)	WHMIS (Classification)	HCS
	WHMIS CLASS D-2B: Material causing other toxic effects (TOXIC).	HCS Class: Irritating substance.

Section 1. Chemical Product and Company Identification

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

Code	192
CAS #	Not applicable.
Validation Date	**9/9/2002**
Print Date	9/9/2002
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}
1) Water	7732-18-5	0-100	Not available.	Not available.
2) 2-Butoxyethanol	111-76-2	0-5	TWA: 20 (ppm) from ACGIH (TLV) [United States] TWA: 50 (ppm) from OSHA (PEL) [United States]	ORAL (LD50): Acute: 1746 mg/kg [Rat].
3) Tetrasodium salt of ethylendiaminetetraacetic acid	64-02-8	0-5	Not available.	ORAL (LD50): Acute: 3030 mg/kg [Rat].
4) Perfume Oil	N/A	0-5	Not available.	Not available.
5) Dye	N/A	0-5	Not available.	Not available.

Section 3. Hazards Identification

Potential Acute Health Effects	Skin and eye irritant.
Potential Chronic Health Effects	There is no known effect from chronic exposure to this product.
Carcinogenic Effects	Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
Skin Contact	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Seek immediate 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	Safety glasses recommended. 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	Avoid contact with skin and eyes. DO NOT ingest.
Incompatibility	No incompatible product according to our data base.
Storage	Keep out of the reach of children. 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	Safety glasses.
Body	No special protective clothing is required.
Respiratory	Wear appropriate respirator when ventilation is inadequate.
Hands	Gloves.
Protective Clothing (Pictograms)	
Exposure Limits	**2-Butoxyethanol** TWA: 25 (ppm) TWA: 50 (ppm) from OSHA (PEL) [United States] Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Liquid.	**Odor**	Pleasant.
Molecular Weight	Not applicable.	**Taste**	Not available.
pH	10 to 11 [Basic.]	**Color**	Blue.

Boiling/Condensation Point	209°F initial
Melting/Freezing Point	Not available.
Critical Temperature	Not available.
Instability Temperature	Not available.
Specific Gravity	0.972 (Water = 1)
Vapor Pressure	25mm Hg @ 68°F
Vapor Density	>1 (Air = 1)
Volatility	100
VOC	Not available.
Evaporation Rate	>1 compared to Water
Odor Threshold	Not available.
$LogK_{ow}$	Not available.
Ionicity (in Water)	Not available.
Dispersion Properties	See solubility in water.
Solubility	Easily soluble in cold water.
The Product is:	Non-flammable.
Auto-ignition Temperature	Not available.
Flash Points	CLOSED CUP: >98.889°C (210°F).
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	Risks of explosion of the product in presence of static discharge: Not available.

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	Will not occur.

Section 11. Toxicological Information

Routes of Entry	Skin contact. INHALATION Eye Contact Ingestion.
Toxicity to Animals	**WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE.** Acute oral toxicity (LD50): 1746 mg/kg [Rat]. (2-Butoxyethanol). Acute toxicity of the gas (LC50): 926 ppm 4 hour(s) [Mouse]. (2-Butoxyethanol).
Acute Effects on Humans	
Eyes	Hazardous in case of eye contact (irritant).
Skin	Hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.
Inhalation	Hazardous in case of inhalation.
Ingestion	Slightly hazardous in case of ingestion.
Chronic Effects on Humans	There is no known effect from chronic exposure to this product.
Special Remarks on Toxicity to Animals	No additional remark.
Special Remarks on Chronic Effects on Humans	No additional remark.

Section 12. Ecological Information

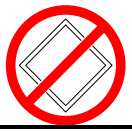
Ecotoxicity	Not Available
BOD5 and COD	Not available.
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	Not available.
Special Remarks on the Products of Biodegradation	No additional remark.

Section 13. Disposal Considerations

Waste Information	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.

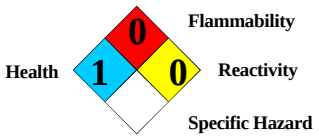
Section 15. Other Regulatory Information and Pictograms

WHMIS (Classification)	WHMIS CLASS D-2B: Material causing other toxic effects (TOXIC).	
Regulatory Lists	No products were found.	
Other Regulations	Not available. or of its ingredients	
Other Classifications	**HCS (U.S.A.)**	HCS Class: Irritating substance.
	USA Regulatory Lists	No components found on California Prop 65 SARA 311/312 MSDS distribution - chemical inventory - hazard identification: 2-Butoxyethanol: immediate health hazard, delayed health hazard SARA 313 toxic chemical notification and release reporting: 2-Butoxyethanol
	DSD (EEC)	
	International Regulations Lists	No products were found.

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

Health	1
Flammability	0
Reactivity	0
Personal Protection	A

National Fire Protection Association (U.S.A.)



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Reactivity	0
Personal Protection	A

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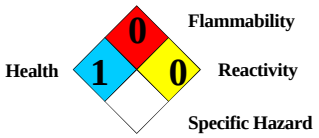

Section 16. Other Information

Validated by CRushton on 9/9/2002.

Verified by CRushton.

Printed 9/9/2002.

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.

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