



Material Safety Data Sheet

This MSDS is prepared in accordance with OSHA 29 CFR 1910.1200

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

Section 1. Chemical Product and Company Identification

Product Name/ Trade name	Clear Image Concentrate	Code	199
Synonym	Non-Ammoniated Glass Cleaner	Version Number	2.0
Chemical Family	Not available.	Validation Date	9/29/2010
Chemical Formula	Not applicable.	Print Date	9/29/2010
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
2-Butoxyethanol	111-76-2	5 - 10	ACGIH (United States). TWA: 20 ppm OSHA (United States). TWA: 50 ppm	ORAL (LD50): Acute: 1746 mg/kg [Rat].
Sodium Lauryl Sulfate	151-21-3	1 - 5	Not available.	Not available.
Sodium Xylene Sulfonate	1300-72-7	1 - 5	Not available.	ORAL (LD50): Acute: 650 mg/kg [Rat]. 5939 mg/kg [Mouse].

Section 3. Hazards Identification

Potential Acute Health Effects	Harmful if swallowed. Harmful if absorbed through the skin.
Potential Chronic Health Effects	Over-exposure by inhalation may cause respiratory irritation. *Repeated or prolonged exposure to the substance can produce liver damage. *Repeated or prolonged exposure to the substance can produce nervous system damage. *Repeated or prolonged exposure to the substance can produce blood disorders. *Information is based on animal data, relevance to humans has yet to be determined.
Carcinogenic Effects	Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

Section 4. First Aid Measures

Eye Contact	Flush with large quantities of water. Seek medical attention if irritation persists.
Skin Contact	Flush with large quantities of water. Seek medical attention if irritation persists.
Inhalation	Get to fresh air. Seek medical attention if irritation persists.
Ingestion	INDUCE VOMITING by sticking finger in throat. Seek immediate medical attention.

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 Safety glasses recommended. Absorb with an inert material and place in an appropriate waste disposal container.

Large Spill and Leak Avoid to runoff to sewers and waterways. Wear Protective Clothing. Absorb with inert Material. Contact you local Emergency planning commission for further instructions.

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 Keep out of reach of children. Keep locked up. For Institutional and Commercial Use

Incompatibility None known.

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 for most conditions. Local exhaust ventilation may be necessary for some operations.

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)

Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance Liquid.

Odor Characteristic.

Molecular Weight Not applicable.

Taste Not available.

pH Not available.

Color Blue.

Boiling/Condensation Point 209°F initial

Melting/Freezing Point	Not available.
Critical Temperature	Not available.
Instability Temperature	Not available.
Specific Gravity	0.98 (Water = 1)
Vapor Pressure	Not available.
Vapor Density	>1 (Air = 1)
Volatility	100
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	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	None known.
Hazardous Decomposition Products	Will not occur.

Section 11. Toxicological Information

Routes of Entry	Absorbed through skin. Dermal contact. Eye contact. Inhalation. 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	<p><i>Eyes</i> Eye irritant. Liquid and mists may damage the eyes causing corneal injury.</p> <p><i>Skin</i> Skin irritant. May cause moderate redness and swelling.</p> <p><i>Inhalation</i> Vapors may be irritating to mucous membranes of the nose, throat, and lungs.</p> <p><i>Ingestion</i> May cause headache, dizziness, nausea, vomiting, and diarrhea.</p>

Chronic Effects on Humans	Over-exposure by inhalation may cause respiratory irritation. *Repeated or prolonged exposure to the substance can produce liver damage. *Repeated or prolonged exposure to the substance can produce nervous system damage. *Repeated or prolonged exposure to the substance can produce blood disorders. *Information is based on animal data, relevance to humans has yet to be determined.
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 all applicable local , state, and federal 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-2: Material causing other toxic effects.



Regulatory Lists

Other Regulations

Other Classifications

HCS (U.S.A.)

HCS Class: Irritating substance.

USA Regulatory Lists

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)

R22- Harmful if swallowed.

R36/38- Irritating to eyes and skin.

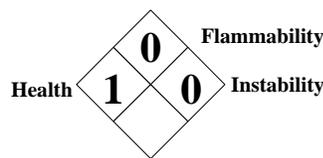
International Regulations Lists

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.

Section 16. Other Information

Validated by CRushton on 9/29/2010.

Verified by CRushton.

Printed 9/29/2010.

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 9/29/2010.

Clear Image Concentrate

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