





Material Safety Data Sheet

This MSDS is prepared in accordance with OSHA 29 CFR 1910.1200

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

Section 1. Chemical Product and Company Identification

Product Name/ Trade name	Clear Image Concentrate	Code	299
Synonym	Non-Ammoniated Glass Cleaner	CAS #	Not applicable.
Chemical Family	Not available.	Validation Date	3/22/2004
Chemical Formula	Not applicable.	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) 2-Butoxyethanol	111-76-2	35-40	TWA: 20 (ppm) from ACGIH (TLV) [United States] TWA: 50 (ppm) from OSHA (PEL) [United States]	ORAL (LD50): Acute: 1746 mg/kg [Rat].
2) Sodium Lauryl Sulfate	151-21-3	1-5	Not available.	Not available.
3) 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	This product is a severe eye irritant. Skin and eye irritant. HARMFUL IF INHALED. Harmful if swallowed.
Potential Chronic Health Effects	Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Over-exposure by inhalation may cause respiratory irritation. Repeated or prolonged exposure to the substance can produce blood disorders. Repeated or prolonged exposure to the substance can produce kidney damage. Repeated or prolonged exposure to the substance can produce liver damage. Repeated or prolonged exposure to the substance can produce nervous system damage. However, in light of good industrial hygiene, exposure to any chemical should be kept to a minimum.
Carcinogenic Effects	Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

Section 4. First Aid Measures

Eye Contact	Avoid contact with eyes. Flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek medical attention.
Skin Contact	After contact with skin, wash immediately with plenty of water.
Inhalation	Evacuate the victim to a safe area as soon as possible.
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	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
Special Remarks on Fire Hazards	Not available.
Special Remarks on Explosion Hazards	Not available.

Section 6. Accidental Release Measures

Small Spill and Leak	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: Neutralize the residue with a dilute solution of acetic acid. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
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 breathe gas, fumes, vapor or spray. If ingested, seek medical advice immediately and show the container or the label.
Incompatibility	Not available.
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

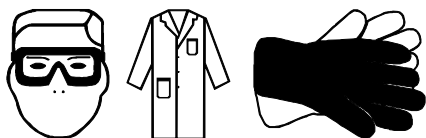
Eyes Splash goggles.

Body Lab coat.

Respiratory Not applicable.

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	11 to 12 [Basic.]	Color	Blue.
Boiling/Condensation Point	209°F initial		
Melting/Freezing Point	Not available.		
Critical Temperature	Not available.		
Instability Temperature	Not available.		
Specific Gravity	0.96 (Water = 1)		
Vapor Pressure	25mm Hg @ 68°F		
Vapor Density	>1 (Air = 1)		
Volatility	100		
VOC	Not available.		
Evaporation Rate	>1		
Dispersion Properties	See solubility in water.		
Solubility	Easily soluble in cold water.		
The Product is:	Non-flammable.		
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	Not available.
Hazardous Decomposition Products	Not available.

Section 11. Toxicological Information

Routes of Entry	Eye Contact Ingestion. INHALATION Skin contact.
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	<i>Eyes</i> Irritant. Eye contact can result in corneal damage or blindness. <i>Skin</i> Irritant. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. <i>Inhalation</i> Irritating to mouth, throat and stomach. <i>Ingestion</i> May be fatal if swallowed. May cause headache, dizziness, nausea, vomiting and diarrhea.
Chronic Effects on Humans	Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Over-exposure by inhalation may cause respiratory irritation. Repeated or prolonged exposure to the substance can produce blood disorders. Repeated or prolonged exposure to the substance can produce kidney damage. Repeated or prolonged exposure to the substance can produce liver damage. Repeated or prolonged exposure to the substance can produce nervous system damage. However, in light of good industrial hygiene, exposure to any chemical should be kept to a minimum.
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

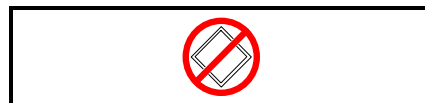
Waste Information	Waste must be disposed of in accordance with federal, state and local environmental control regulations.
Waste Stream	Not available.

Section 14. Transport Information

DOT (U.S.A)
(Pictograms)


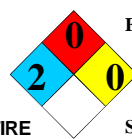


TDG Classification Not controlled under TDG (Canada).



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-2: Material causing other toxic effects.										
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	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.)	<table border="1"> <tr> <td>Health</td> <td>*</td> <td>2</td> </tr> <tr> <td>Flammability</td> <td></td> <td>0</td> </tr> <tr> <td>Physical Hazard</td> <td></td> <td>0</td> </tr> </table>	Health	*	2	Flammability		0	Physical Hazard		0	National Fire Protection Association (U.S.A.) 
Health	*	2									
Flammability		0									
Physical Hazard		0									
<p>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.</p>											

Section 16. Other Information

Validated by CRushton on 3/22/2004.

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.*

Continued on Next Page