



# 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.	Mild Irritant
WHMIS (Pictograms)	WHMIS (Classification)	HCS

## Section 1. Chemical Product and Company Identification

<b>Product Name/ Trade name</b>	<b>Clear Image Concentrate (At Dilution)</b>	<b>Code</b>	<b>199 At Dilution</b>
<b>Synonym</b>	Non-Ammoniated Glass Cleaner	<b>CAS #</b>	Not applicable.
<b>Chemical Family</b>	Not available.	<b>Validation Date</b>	3/2/2010
<b>Chemical Formula</b>	Not applicable.	<b>Print Date</b>	3/3/2010
<b>Manufacturer/ Supplier</b>	Betco Corporation 1001 Brown Avenue Toledo, Ohio 43607 (419) 241-2156	<b>In Case of Emergency</b>	Chemtrec (800) 424-9300
<b>TSCA</b>	TSCA Inventory: All components listed or are exempt from listing.		
<b>DSL/ NDSL</b>	All components listed unless noted elsewhere on this MSDS		
		<b>Protective Clothing</b> 	

## Section 2. Composition and Information on Ingredients

Name	CAS #	% by Weight	Exposure Limits	LC <sub>50</sub> /LD <sub>50</sub>
Water	7732-18-5	>60	Not available.	Not available.
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].
Sodium Lauryl Sulfate	151-21-3	0-5	Not available.	Not available.
Sodium Xylene Sulfonate	1300-72-7	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].
Perfume Oil	N/A	0-5	Not available.	Not available.
Dye	N/A	0-5	Not available.	Not available.
Nonionic Surfactant	66455-15-0	0-5	Not available.	Not available.

## Section 3. Hazards Identification

<b>Potential Acute Health Effects</b>	This product is an eye irritant.
<b>Potential Chronic Health Effects</b>	Over-exposure by inhalation may cause respiratory irritation.
<b>Carcinogenic Effects</b>	Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

#### Section 4. First Aid Measures

Eye Contact	Avoid contact with eyes. In case of contact with eyes, rinse immediately with plenty of water. Seek immediate medical attention.
Skin Contact	Avoid contact with skin and eyes. After contact with skin, wash immediately with plenty of water. Seek medical attention if irritation persists.
Inhalation	Get to fresh air. Seek medical attention if irritation persists.
Ingestion	Seek immediate medical attention. Do NOT induce vomiting unless instructed to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

#### 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 runoff to sewers and waterways. Wear Protective Clothing. Absorb with inert material. Contact your local Emergency planning commission for further instructions.
Personal Protection in Case of a Large Spill	Gloves. Boots. Safety glasses. Vapor respirator.

#### Section 7. Handling and Storage

Precautions	Keep out of reach of children. Keep locked up. For Institutional and Commercial Use
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 for most conditions. Local exhaust ventilation may be necessary for some operations.
Personal Protection	
<i>Eyes</i>	Eye contact with the concentrate is unlikely when dispensing through a dilution control system. Eye protection should be worn in operations 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>	Although skin contact with concentrate is unlikely when using through a dilution control system, the use of gloves is recommended when using this product.

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**

<b>Physical State and Appearance</b>	Liquid.	<b>Odor</b>	Characteristic.
<b>Molecular Weight</b>	Not applicable.	<b>Taste</b>	Not available.
<b>pH</b>	9 to 10 [Basic.]	<b>Color</b>	Blue.
<b>Boiling/Condensation Point</b>	212°F initial		
<b>Melting/Freezing Point</b>	Not available.		
<b>Critical Temperature</b>	Not available.		
<b>Instability Temperature</b>	Not available.		
<b>Specific Gravity</b>	0.96 (Water = 1)		
<b>Vapor Pressure</b>	25mm Hg @ 68°F		
<b>Vapor Density</b>	>1 (Air = 1)		
<b>Volatility</b>	100		
<b>VOC</b>			
<b>Evaporation Rate</b>	>1 compared to Water		
<b>Dispersion Properties</b>	See solubility in water.		
<b>Solubility</b>	Easily soluble in cold water.		
<b>The Product is:</b>	May be combustible at high temperature.		
<b>Auto-ignition Temperature</b>	Not available.		
<b>Flash Points</b>	Not available.		
<b>Flammable Limits</b>	Not available.		
<b>Fire Hazards in Presence of Various Substances</b>	No specific information is available in our database regarding the flammability of this product in presence of various materials.		
<b>Explosion Hazards in Presence of Various Substances</b>	Not applicable		

**Section 10. Stability and Reactivity Data**

<b>Stability</b>	The product is stable.
<b>Incompatibility with Various Substances</b>	Not Available
<b>Hazardous Decomposition Products</b>	Will not occur.

### Section 11. Toxicological Information

Routes of Entry	Skin. Eyes. Ingestion.
Toxicity to Animals	<b>WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE.</b> 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. <i>Skin</i> Slightly irritating <i>Inhalation</i> Slightly irritating to the respiratory system. <i>Ingestion</i> May cause headache, dizziness, nausea, vomiting, and diarrhea.
Chronic Effects on Humans	Over-exposure by inhalation may cause respiratory irritation.
Special Remarks on Toxicity to Animals	No additional remark.
Special Remarks on Chronic Effects on Humans	No additional remark.

### Section 12. Ecological Information

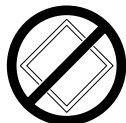
Ecotoxicity	Not available.
BOD5 and COD	Not available.
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	Not available.
Special Remarks on the Products of Biodegradation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

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

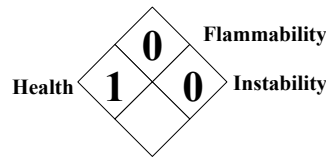
DSD (EEC)

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 3/2/2007.

Verified by CRushton.

Printed 11/30/2007.

Information Contact Betco Corporation  
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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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