



# Material Safety Data Sheet

This MSDS is prepared in accordance with OSHA 29 CFR 1910.1200

	Not controlled under WHMIS (Canada).	HCS Class: Irritating substance.
WHMIS (Pictograms)	WHMIS (Classification)	HCS

## Section 1. Chemical Product and Company Identification

<b>Product Name/ Trade name</b>	<b>Clear Image</b>	<b>Code</b>	<b>092</b>
<b>Synonym</b>	Non-Ammoniated Glass/Plexiglass® Cleaner	<b>CAS #</b>	Mixture.
<b>Chemical Family</b>	Not available.	<b>Validation Date</b>	3/20/2004
<b>Chemical Formula</b>	Not applicable.	<b>Print Date</b>	3/27/2004
<b>Manufacturer/ Supplier</b>	Betco Corporation 1001 Brown Avenue Toledo, Oh 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>
1) Ethyl Alcohol	64-17-5	15-20	TWA: 1000 (ppm) TWA: 1000 (ppm) from OSHA (PEL) [United States]	ORAL (LD50): Acute: 7060 mg/kg [Rat].
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) Sodium Lauryl Sulfate	151-21-3	0-5	Not available.	Not available.
4) Monoethanolamine	141-43-5	0-5	TWA: 3 (ppm) TWA: 6 (ppm) from OSHA (PEL) [United States]	Not available.
5) Liquified Petroleum Gas	68476-85-7	0-5	STEL: 6 (ppm) TWA: 1000 (ppm) TWA: 1000 (ppm) from OSHA (PEL) [United States]	Not available.
6) Nonionic Surfactant	127087-87-0	0-5	Not available.	Not available.
7) Perfume Oil	N/A	0-5	Not available.	Not available.

## Section 3. Hazards Identification

<b>Potential Acute Health Effects</b>	No specific information is available in our database regarding the acute toxic effects of this material for humans.
<b>Potential Chronic Health Effects</b>	Over-exposure by inhalation may cause respiratory irritation. Severe over-exposure can produce lung damage, choking, unconsciousness or death.
<b>Carcinogenic Effects</b>	Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

#### Section 4. First Aid Measures

Eye Contact	Flush eyes 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	Drink two glasses of water. Do not induce vomiting. Seek medical attention immediately.

#### Section 5. Fire Fighting Measures

Products of Combustion	Not available.
Fire Fighting Media and Instructions	CO2, dry chemical, foam.
Special Remarks on Fire Hazards	N/A
Special Remarks on Explosion Hazards	Heated cans may burst.

#### Section 6. Accidental Release Measures

Small Spill and Leak	N/A
Large Spill and Leak	Absorb with an inert material and put the spilled material in an appropriate waste disposal. Call for assistance on 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	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. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label.
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 to control airborne levels.

##### Personal Protection

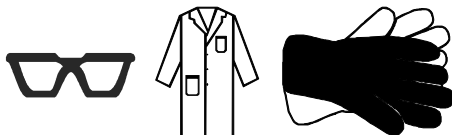
*Eyes* Safety glasses.

*Body* Lab coat.

*Respiratory* Not applicable.

*Hands* Gloves.

##### Protective Clothing (Pictograms)



**Exposure Limits****Ethyl Alcohol**

TWA: 1000 (ppm)

TWA: 1000 (ppm) from OSHA (PEL) [United States]

**2-Butoxyethanol**

TWA: 25 (ppm)

TWA: 50 (ppm) from OSHA (PEL) [United States]

**Monoethanolamine**

TWA: 3 (ppm)

TWA: 6 (ppm) from OSHA (PEL) [United States]

STEL: 6 (ppm)

**Liquified Petroleum Gas**

TWA: 1000 (ppm)

TWA: 1000 (ppm) from OSHA (PEL) [United States]

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>	
<b>pH</b>	10.5 to 11.5 [Basic.]	<b>Color</b>	White.
<b>Boiling/Condensation Point</b>	N/A		
<b>Melting/Freezing Point</b>	Not available.		
<b>Critical Temperature</b>	Not available.		
<b>Instability Temperature</b>	Not available.		
<b>Specific Gravity</b>	Not available.		
<b>Vapor Pressure</b>	50 psig @ 68°F		
<b>Vapor Density</b>	>1 (Air = 1)		
<b>Volatility</b>	99		
<b>VOC</b>	Not available.		
<b>Evaporation Rate</b>	<1		
<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>	LOWER: 1.1% UPPER: 19%		
<b>Fire Hazards in Presence of Various Substances</b>	Not available.		
<b>Explosion Hazards in Presence of Various Substances</b>	Containers may explode when heated.		

### 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** Not available.

**Toxicity to Animals** Acute oral toxicity (LD50): 1746 mg/kg [Rat]. (2-Butoxyethanol).

#### Acute Effects on Humans

**Eyes** Eye irritant. Liquid and mist may damage the eyes causing corneal injury.

**Skin** Skin irritant. May cause moderate redness and swelling.

**Inhalation** May be irritating to mucous membranes of the nose, throat, and lungs.

**Ingestion** May cause dizziness, headache, nausea, vomiting, and diarrhea.

**Chronic Effects on Humans** Over-exposure by inhalation may cause respiratory irritation. Severe over-exposure can produce lung damage, choking, unconsciousness or death.

**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** 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** Not available.

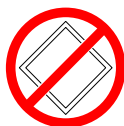
### Section 13. Disposal Considerations


**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)**



<b>TDG Classification</b>	Not controlled under TDG (Canada).	
<b>PIN UN, Proper Shipping Name, PG</b>	Not applicable.	
<b>Maritime Transportation</b>	Not available.	
<b>Special Provisions for Transport</b>	Not applicable.	

<b>Section 15. Other Regulatory Information and Pictograms</b>											
<b>WHMIS (Classification)</b>	Not controlled under WHMIS (Canada).										
<b>Regulatory Lists</b>											
<b>Other Regulations</b>	Not available. or of its ingredients										
<b>Other Classifications</b>	<b>HCS (U.S.A.)</b>	HCS Class: Irritating substance.									
	<b>USA Regulatory Lists</b>	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									
	<b>DSD (EEC)</b>	This product is not classified according to the EU regulations.									
	<b>International Regulations Lists</b>	No products were found.									
<b>Hazardous Material Information System (U.S.A.)</b>	<table border="1"> <tr> <td>Health</td> <td>*</td> <td>2</td> </tr> <tr> <td>Flammability</td> <td></td> <td>2</td> </tr> <tr> <td>Physical Hazard</td> <td></td> <td>0</td> </tr> </table>	Health	*	2	Flammability		2	Physical Hazard		0	<b>National Fire Protection Association (U.S.A.)</b> 
Health	*	2									
Flammability		2									
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>											

<b>Section 16. Other Information</b>	
Validated by CRushton on 3/20/2004.	Verified by CRushton. Printed 3/27/2004.
<b>Information Contact</b>	<b>Betco Corporation</b> 1001 Brown Avenue Toledo, Ohio 43607
<u>Notice to Reader</u>	
<p><i>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.</i></p> <p><i>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.</i></p>	

*Continued on Next Page*