





# Material Safety Data Sheet

This MSDS is prepared in accordance with OSHA 29 CFR 1910.1200

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

## Section 1. Chemical Product and Company Identification

|                             |  |   |                         |
|-----------------------------|--|---|-------------------------|
| Product Name/<br>Trade name | <b>Clear Image</b>   | Code  | 192                     |
| Synonym                     | Non-Ammoniated Glass Cleaner   | CAS #   | Not applicable.         |
| Chemical Family             | Not available.   | Validation Date   | 3/2/2010                |
| Chemical Formula            | Not applicable.  | Print Date  | 3/3/2010                |
| Manufacturer/ Supplier      | Betco Corporation<br>1001 Brown Avenue<br>Toledo, Oh 43607<br>(419) 241-2156 | In Case of<br>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                    |   |                         |
|                             |  | <b>Protective Clothing</b><br> |                         |

## Section 2. Composition and Information on Ingredients

| Name            | CAS #    | % by Weight | Exposure Limits   | LC <sub>50</sub> /LD <sub>50</sub>    |
|-----------------|----------|-------------|---|---------------------------------------|
| 2-Butoxyethanol | 111-76-2 | 1-5         | TWA: 20 (ppm) from ACGIH (TLV) [United States]<br>TWA: 50 (ppm) from OSHA (PEL) [United States] | ORAL (LD50): Acute: 1746 mg/kg [Rat]. |

## Section 3. Hazards Identification

|                                  |   |
|----------------------------------|---|
| Potential Acute Health Effects   | Skin and eye irritant.  |
| Potential Chronic Health Effects | Over-exposure by inhalation may cause respiratory irritation. |
| 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* Splash goggles.

*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

|                                      |                   |              |                |
|--------------------------------------|-------------------|--------------|----------------|
| <b>Physical State and Appearance</b> | Liquid.           | <b>Odor</b>  | Pleasant.      |
|                                      |                   | <b>Taste</b> | Not available. |
|                                      |                   | <b>Color</b> | Blue.          |
| <b>Molecular Weight</b>              | Not applicable.   |              |                |
| <b>pH</b>                            | 10 to 11 [Basic.] |              |                |
| <b>Boiling/Condensation Point</b>    | 209°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>                                    | 0.972 (Water = 1)   |
| <b>Vapor Pressure</b>                                      | 25mm Hg @ 68°F  |
| <b>Vapor Density</b>                                       | >1 (Air = 1)  |
| <b>Volatility</b>  | 100   |
| <b>VOC</b>   | Not available.  |
| <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>                                     | Non-flammable.  |
| <b>Auto-ignition Temperature</b>                           | Not available.  |
| <b>Flash Points</b>  | CLOSED CUP: >98.889°C (210°F).  |
| <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> | Risks of explosion of the product in presence of static discharge: Not available.   |

### Section 10. Stability and Reactivity Data

|  |   |
|--|---|
| <b>Stability</b>                               | The product is stable.                              |
| <b>Incompatibility with Various Substances</b> | No incompatible product according to our data base. |
| <b>Hazardous Decomposition Products</b>        | Will not occur.                                     |

### Section 11. Toxicological Information

|   |   |
|---|---|
| <b>Routes of Entry</b>                        | Skin contact. INHALATION Eye Contact Ingestion.   |
| <b>Toxicity to Animals</b>                    | <b>WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE.</b><br>Acute oral toxicity (LD50): 1746 mg/kg [Rat]. (2-Butoxyethanol).<br>Acute toxicity of the gas (LC50): 926 ppm 4 hour(s) [Mouse]. (2-Butoxyethanol).   |
| <b>Acute Effects on Humans</b>                | <i>Eyes</i> Hazardous in case of eye contact (irritant).<br><i>Skin</i> Hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.<br><i>Inhalation</i> Hazardous in case of inhalation.<br><i>Ingestion</i> Slightly hazardous in case of ingestion. |
| <b>Chronic Effects on Humans</b>              | Over-exposure by inhalation may cause respiratory irritation.   |
| <b>Special Remarks on Toxicity to Animals</b> | 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.

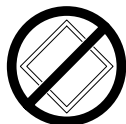
### Section 13. Disposal Considerations

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

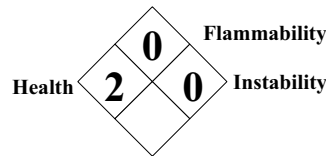
DSD (EEC)

International Regulations Lists No products were found.

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

|                 |   |   |
|-----------------|---|---|
| Health          | * | 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. **Specific Hazard**

**Section 16. Other Information**

Validated by CRushton on 3/23/2007.

Verified by CRushton.

Printed 3/23/2007.

**Information Contact Betco Corporation**  
 1001 Brown Avenue  
 Toledo, Ohio 43607

Notice to Read:

*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 3/23/2007.

**Clear Image**

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