





Material Safety Data Sheet

This MSDS is prepared in accordance with OSHA 29 CFR 1910.1200

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|---|---|----------------------------------|
|  | 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/ Trade name | Clear Image | Code | 183 |
| Synonym | Non Ammoniated Glass Cleaner | CAS # | Mixture. |
| Chemical Family | Not available. | Validation Date | 3/23/2007 |
| Chemical Formula | Not applicable. | Print Date | 3/23/2007 |
| 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 | 10-15 | TWA: 20 (ppm) from ACGIH (TLV) [United States] TWA: 50 (ppm) from OSHA (PEL) [United States] | ORAL (LD50): Acute: 1746 mg/kg [Rat]. |

Section 3. Hazards Identification

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| Potential Acute Health Effects | Harmful if absorbed through the skin. Harmful if swallowed. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. |
| Potential Chronic Health Effects | Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin 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. |
| Carcinogenic Effects | Not classified or listed by IARC, NTP, OSHA, EU and ACGIH. |

Section 4. First Aid Measures

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| Eye Contact | In case of contact with eyes, rinse immediately with plenty of water. Seek immediate medical attention. |
| Skin Contact | After contact with skin, wash immediately with plenty of water. Seek medical attention. |
| Inhalation | Allow the victim to rest in a well ventilated area. |
| Ingestion | INDUCE VOMITING by sticking finger in throat. Seek immediate medical attention. |

Section 5. Fire Fighting Measures

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|--------------------------------------|--------------------------|
| 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

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| Small Spill and Leak | 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

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| Precautions | Avoid contact with skin and eyes. After handling, always wash hands thoroughly with soap and water. |
| Incompatibility | acids oxidizing agents |
| Storage | Keep out of reach of children. For Institutional and Commercial Use Keep only in the original container. |

Section 8. Exposure Controls/Personal Protection

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| Engineering Controls | Good general ventilation should be sufficient to control airborne levels. |
| Personal Protection | |
| <i>Eyes</i> | Splash goggles. |
| <i>Body</i> | Lab coat. |
| <i>Respiratory</i> | Not applicable. |
| <i>Hands</i> | Gloves. |

Protective Clothing (Pictograms)



| | |
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| Exposure Limits | 2-Butoxyethanol TWA: 25 (ppm) TWA: 50 (ppm) from OSHA (PEL) |
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Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

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|-------------------------------|-----------------|-------|----------------|
| Physical State and Appearance | Liquid | Odor | Pleasant. |
| Molecular Weight | Not applicable. | Taste | Not available. |
| pH | 10.4 [Basic.] | Color | Blue. |
| Boiling/Condensation Point | 212 Initial | | |
| Melting/Freezing Point | Not available. | | |

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| Critical Temperature | Not available. |
| Instability Temperature | Not available. |
| Specific Gravity | 0.986 (Water = 1) |
| Vapor Pressure | N/A |
| Vapor Density | Not available. |
| Volatility | >99% |
| VOC | Not available. |
| Evaporation Rate | >1 |
| | |
| | |
| Dispersion Properties | Dispersed in cold water, hot water, methanol, diethyl ether, n-octanol, acetone. |
| Solubility | Soluble in water |
| The Product is: | Non-flammable. |
| Auto-ignition Temperature | Not Available |
| Flash Points | None to Boiling |
| Flammable Limits | Not Available |
| Fire Hazards in Presence of Various Substances | Non-flammable. |
| Explosion Hazards in Presence of Various Substances | Not applicable |

Section 10. Stability and Reactivity Data

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| Stability | The product is stable. |
| Incompatibility with Various Substances | acids oxidizing agents |
| Hazardous Decomposition Products | None Known |

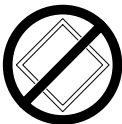

Section 11. Toxicological Information

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| Routes of Entry | Not available. |
| 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. Inflammation of the eye is characterized by redness, watering, and itching. <i>Skin</i> Irritant. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. <i>Inhalation</i> Irritating to mouth, throat and stomach. Slightly irritating to the respiratory system. <i>Ingestion</i> May cause gastrointestinal discomfort. May cause nausea, vomiting and diarrhea. |

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| Chronic Effects on Humans | Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin 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. |
| Special Remarks on Toxicity to Animals | No additional remark. |
| Special Remarks on Chronic Effects on Humans | No additional remark. |

| Section 12. Ecological Information | |
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| 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 | as toxic as the original product. |
| Special Remarks on the Products of Biodegradation | No additional remark. |

| Section 13. Disposal Considerations | |
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| 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 | |
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| 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 CEPA DSL: No products were found.

Other Regulations Not available. or of its ingredients

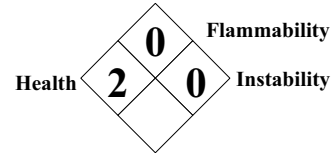
Other Classifications

| | |
|--|---|
| 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 | 0 |
| Physical Hazard | 0 | 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 3/23/2007.

Verified by CRushton.

Printed 3/23/2007.

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 3/23/2007.

Clear Image

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