



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.	HCS CLASS: Irritating substance.
WHMIS (Pictograms)	WHMIS (Classification)	HCS

Section 1. Chemical Product and Company Identification

Product Name/ Trade name	Deep Blue	Code	108
Synonym	Glass and Surface Cleaner	CAS #	Not applicable.
Chemical Family	Not available.	Validation Date	3/23/2007
Chemical Formula	N/A	Print Date	3/23/2007
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
2-Butoxyethanol	111-76-2	0-1	TWA: 20 (ppm) from ACGIH (TLV) [United States] TWA: 50 (ppm) from OSHA (PEL) [United States]	ORAL (LD50): Acute: 1746 mg/kg [Rat].
Ammonium Hydroxide	1336-21-6	<1	TWA: 50 (ppm) TWA: 50 (ppm) from OSHA (PEL) [United States] STEL: 35 (ppm)	Not available.

Section 3. Hazards Identification

Potential Acute Health Effects	This product is an 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	Flush with large quantities of water . Seek medica 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 and induce vomiting. Seek medical attention immediately.

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	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.

Section 7. Handling and Storage

Precautions	Keep locked up. DO NOT ingest. Do not breathe gas, fumes, vapor or spray. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label.
Incompatibility	oxidizing agents
Storage	Keep locked up and out of the reach of children. Keep container tightly closed. 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 A respirator is not needed under normal and intended conditions of product use.

Hands Gloves (impervious).

Protective Clothing (Pictograms)



Exposure Limits

2-Butoxyethanol

TWA: 25 (ppm)
TWA: 50 (ppm) from OSHA (PEL)

Ammonium Hydroxide

TWA: 50 (ppm)
TWA: 50 (ppm) from OSHA (PEL)
STEL: 35 (ppm)

Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Liquid.	Odor	Characteristic. (Strong.)
Molecular Weight	Not applicable.	Taste	Disagreeable. (Strong.)
pH	10.5 to 11.5 [Basic.]	Color	Blue. (Dark.)
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 compared to Water		
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 applicable.		
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	No specific information is available in our database regarding the product's risks of explosion in the presence of various materials.		

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Incompatibility with Various Substances	oxidizing agents
Hazardous Decomposition Products	Will not occur

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> Eye irritant. Liquid and mist may damage the eyes causing corneal injury. <i>Skin</i> Skin irritant. May cause moderate redness and swelling. <i>Inhalation</i> Vapors may be irritating to mucous membranes of the nose, throat, and lungs. <i>Ingestion</i> May cause headache, dizziness, nausea, vomiting, and diarrhea. Harmful if swallowed.
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

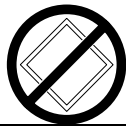
Ecotoxicity	Not available.
BOD5 and COD	Not available.
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	Not available.
Special Remarks on the Products of Biodegradation	No additional remark.

Section 13. Disposal Considerations

Waste Information	Any method in accordance with applicable laws.
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

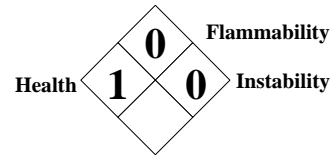
DSD (EEC)

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.

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.

Deep Blue

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