



# Material Safety Data Sheet

This MSDS is prepared in accordance with OSHA 29 CFR 1910.1200

	<b>WHMIS Class E: Corrosive liquid. WHMIS CLASS D-2: Material causing other toxic effects.</b>	HCS Class: Irritating substance.
WHMIS (Pictograms)	WHMIS (Classification)	HCS
<b>Section 1. Chemical Product and Company Identification</b>		
<b>Product Name/ Trade name</b>	<b>Deep Blue Concentrate</b>	<b>Code</b> 181
<b>Synonym</b>	Concentrated Glass Cleaner	<b>CAS #</b> Not applicable.
<b>Chemical Family</b>	Not available.	<b>Validation Date</b> 8/17/2005
<b>Chemical Formula</b>	Not applicable.	<b>Print Date</b> 8/17/2005
<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>Protective Clothing</b> 
<b>DSL/ NDSL</b>	All components listed unless noted elsewhere on this MSDS	

<b>Section 2. Composition and Information on Ingredients</b>				
Name	CAS #	% by Weight	Exposure Limits	LC <sub>50</sub> /LD <sub>50</sub>
2-Butoxyethanol	111-76-2	20 - 23	<b>ACGIH (United States).</b> TWA: 20 ppm	ORAL (LD50): Acute: 1746 mg/kg [Rat].
Aqua Ammonia	1336-21-6	1 - 5	<b>OSHA (United States).</b> TWA: 50 ppm	Not available.
Sodium Lauryl Ether Sulfate	68891-38-3	1 - 5	<b>OSHA (United States).</b> TWA: 50 ppm STEL: 35 ppm	Not available.

<b>Section 3. Hazards Identification</b>	
<b>Potential Acute Health Effects</b>	Very hazardous in case of eye contact (irritant). Hazardous in case of skin contact (irritant), of ingestion, of inhalation (lung irritant). Non-sensitizer for skin. Non-permeator by skin. Non-sensitizer for lungs. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Inflammation of the eye is characterized by redness, watering, and itching.
<b>Potential Chronic Health Effects</b>	Over-exposure by inhalation may cause respiratory 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.
<b>Carcinogenic Effects</b>	Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

#### Section 4. First Aid Measures

<b>Eye Contact</b>	Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek medical attention.
<b>Skin Contact</b>	Wash contaminated skin with soap and water. Seek medical attention.
<b>Inhalation</b>	May cause headache, nausea or weakness in case of long term exposure. Remove to fresh air. Seek medical attention.
<b>Ingestion</b>	Call a poison control center immediately for treatment advice. Have person sip a glass of water if able to swallow. 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

<b>Products of Combustion</b>	Not applicable.
<b>Fire Fighting Media and Instructions</b>	Not applicable.
<b>Special Remarks on Fire Hazards</b>	No additional remark.
<b>Special Remarks on Explosion Hazards</b>	No additional remark.

#### Section 6. Accidental Release Measures

<b>Small Spill and Leak</b>	Dilute with water and mop up, or absorb with an inert DRY material and place in an appropriate waste disposal container.
<b>Large Spill and Leak</b>	Absorb with an inert material and put the spilled material in an appropriate waste disposal.
<b>Personal Protection in Case of a Large Spill</b>	Splash goggles. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

#### Section 7. Handling and Storage

<b>Precautions</b>	Keep locked up. DO NOT ingest. Do not breathe gas, fumes, vapor or spray. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.
<b>Incompatibility</b>	No specific information is available in our database regarding the reactivity of this material in presence of various other materials.
<b>Storage</b>	Keep out of reach of children. Keep away from food, drink and animal feeding stuffs. For Institutional and Commercial Use

#### Section 8. Exposure Controls/Personal Protection

<b>Engineering Controls</b>	Good general ventilation should be sufficient to control airborne levels.
<b>Personal Protection</b>	
<i>Eyes</i>	Safety glasses.
<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>	Gloves.

**Protective Clothing (Pictograms)**



**Exposure Limits****2-Butoxyethanol**

TWA: 25 (ppm)

TWA: 50 (ppm) from OSHA (PEL)

**Aqua Ammonia**

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**

<b>Physical State and Appearance</b>	Liquid. (Clear sparkling liquid.)	<b>Odor</b>	Ammoniacal. (Strong.)
<b>Molecular Weight</b>	Not applicable.	<b>Taste</b>	Not available.
<b>pH</b>	10 to 11 [Basic.]	<b>Color</b>	Blue.
<b>Boiling/Condensation Point</b>	Not available.		
<b>Melting/Freezing Point</b>	Not available.		
<b>Critical Temperature</b>	Not available.		
<b>Instability Temperature</b>	Not available.		
<b>Specific Gravity</b>	0.851 (Water = 1)		
<b>Vapor Pressure</b>	Not available.		
<b>Vapor Density</b>	(Air=1) : > 1		
<b>Volatility</b>	Not available.		
<b>VOC</b>	Not available.		
<b>Evaporation Rate</b>	Not available.		
<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 applicable.		
<b>Flash Points</b>	Not applicable.		
<b>Flammable Limits</b>	Not applicable.		
<b>Fire Hazards in Presence of Various Substances</b>	Not applicable.		
<b>Explosion Hazards in Presence of Various Substances</b>	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	No specific information is available in our database regarding the reactivity of this material in presence of various other materials.
Hazardous Decomposition Products	Not available.

### Section 11. Toxicological Information

Routes of Entry	Absorbed through skin. Eye contact. Inhalation. 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> May cause severe eye irritation. <i>Skin</i> This product may irritate eyes and skin upon contact. <i>Inhalation</i> HARMFUL IF INHALED. <i>Ingestion</i> May be fatal if swallowed.
Chronic Effects on Humans	Over-exposure by inhalation may cause respiratory 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

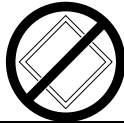
Ecotoxicity	Not available.
BOD5 and COD	Not available.
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	Not available.
Special Remarks on the Products of Biodegradation	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 E: Corrosive liquid. 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 302/304/311/312 extremely hazardous substances: Aqua Ammonia  
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: 2-Butoxyethanol: immediate health hazard, delayed health hazard; Aqua Ammonia: fire, immediate health hazard  
SARA 313 toxic chemical notification and release reporting: 2-Butoxyethanol

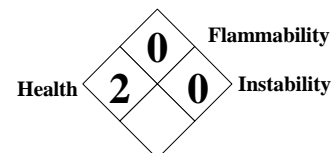
DSD (EEC)

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 8/17/2005.

Verified by CRushton.

Printed 8/17/2005.

**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 8/17/2005.

***Deep Blue Concentrate***

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