





Material Safety Data Sheet

This MSDS is prepared in accordance with OSHA 29 CFR 1910.1200

 WHMIS (Pictograms)	E WHMIS (Classification)	HCS CLASS: Irritating substance. HCS
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Section 1. Chemical Product and Company Identification

Product Name/ Trade name	Deep Blue Concentrate 1:20	Code	281
Synonym	Concentrated Glass Cleaner	CAS #	Not applicable.
Chemical Family	Not available.	Validation Date	3/22/2004
Chemical Formula	Not applicable.	Print Date	3/27/2004
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
1) 2-Butoxyethanol	111-76-2	25-30	TWA: 20 (ppm) from ACGIH (TLV) [United States] TWA: 50 (ppm) from OSHA (PEL) [United States]	ORAL (LD50): Acute: 1746 mg/kg [Rat].
2) Aqua Ammonia	1336-21-6	1-5	TWA: 50 (ppm) TWA: 50 (ppm) from OSHA (PEL) [United States]	Not available.
3) Sodium Lauryl Sulfate	151-21-3	1-5	STEL: 35 (ppm) Not available.	Not available.

Section 3. Hazards Identification

Potential Acute Health Effects	This product is a severe eye irritant. May be fatal if swallowed. May cause skin irritation.
Potential Chronic Health Effects	Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. 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 mucous membranes damage. However, in light of good industrial hygiene, exposure to any chemical should be kept to a minimum.
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. IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
Skin Contact	After contact with skin, wash immediately with plenty of water. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.
Inhalation	Allow the victim to rest in a well ventilated area. Seek immediate medical attention.
Ingestion	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

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

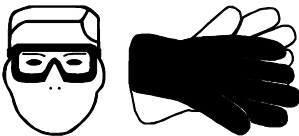
Section 6. Accidental Release Measures

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. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Section 7. Handling and Storage

Precautions	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.
Incompatibility	No specific information is available in our database regarding the reactivity of this material in presence of various other materials.
Storage	Keep container tightly closed. Keep out of reach of children. For Institutional and Commercial Use

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Good general ventilation should be sufficient to control airborne levels.
Personal Protection	
<i>Eyes</i>	Splash goggles.
<i>Body</i>	Long Pants and Long Sleeves to avoid skin contact.
<i>Respiratory</i>	Wear appropriate respirator when ventilation is inadequate.
<i>Hands</i>	Gloves (impervious).
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

Physical State and Appearance	Liquid. (Clear sparkling liquid.)	Odor	Ammoniacal. (Strong.)
Molecular Weight	Not applicable.	Taste	Not available.
pH	11.5 to 12.5 [Basic.]	Color	Blue.
Boiling/Condensation Point	Not available.		
Melting/Freezing Point	Not available.		
Critical Temperature	Not available.		
Instability Temperature	Not available.		
Specific Gravity	.955		
Vapor Pressure	Not available.		
Vapor Density	(Air=1):>1		
Volatility	Not available.		
VOC	Not available.		
Evaporation Rate	(Water=1):>1		
Dispersion Properties	See solubility in water.		
Solubility	Easily soluble in cold water.		
The Product is:	Non-flammable.		
Auto-ignition Temperature	Not applicable.		
Flash Points	Not applicable.		
Flammable Limits	Not applicable.		
Fire Hazards in Presence of Various Substances	Not applicable.		
Explosion Hazards in Presence of Various Substances	Non-explosive in presence of open flames and sparks, of heat.		

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	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> Corrosive to eyes. May cause severe eye irritation. <i>Skin</i> Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. <i>Inhalation</i> Hazardous in case of inhalation (lung irritant). Non-sensitizer for lungs. <i>Ingestion</i> Irritating to mouth, throat and stomach. May be fatal if swallowed.
Chronic Effects on Humans	Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. 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 mucous membranes damage. However, in light of good industrial hygiene, exposure to any chemical should be kept to a minimum.
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 Class 8: Corrosive material



PIN UN, Proper Shipping Name, PG 1760 Corrosive liquid n.o.s. PG: III

Maritime Transportation Not available.

Special Provisions for Transport Not applicable.

Section 15. Other Regulatory Information and Pictograms

WHMIS (Classification) E



Regulatory Lists No products were found.

Other Regulations OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

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.)

Health	2	0	0
		Flammability	Instability
			Specific Hazard

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 3/22/2004.

Verified by CRushton.

Printed 3/27/2004.

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 3/22/2004.

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