





Material Safety Data Sheet

This MSDS is prepared in accordance with OSHA 29 CFR 1910.1200

 WHMIS (Pictograms)	WHMIS Class E: Corrosive liquid. WHMIS CLASS D-2: Material causing other toxic effects. WHMIS (Classification)	HCS Class: Irritating substance. HCS
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Section 1. Chemical Product and Company Identification

Product Name/ Trade name AF79	Code 79
Synonym Disinfectant/Cleaner/Degreaser/Deodorant/Mildewstat/Virucide	CAS # Not applicable.
Chemical Family N/A	Validation Date 3/20/2004
Chemical Formula Not applicable.	Print Date 3/27/2004
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.	Protective Clothing 
DSL/ NDSL All components listed unless noted elsewhere on this MSDS	

Section 2. Composition and Information on Ingredients

Name	CAS #	% by Weight	Exposure Limits	LC ₅₀ /LD ₅₀
1) Alkyl (C14 60%, C16 30%, C12 5%, C18 5%) dimethyl benzyl ammonium chloride	68391-01-5	0.105	Not available.	Not available.
2) Alkyl (C12 68%, C14 32%) dimethyl ethylbenzyl ammonium chloride	68956-79-6	0.105	Not available.	Not available.

Section 3. Hazards Identification

Potential Acute Health Effects	Harmful if swallowed. This product is an eye irritant. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.
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. Cold water may be used. Get medical attention immediately.
Skin Contact	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion	Have conscious person drink several glasses of water. NEVER give an unconscious person anything to ingest. Seek immediate medical attention.

Section 5. Fire Fighting Measures

Products of Combustion	Not applicable.
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	Chemical anti-splash goggles.
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	Keep away from incompatibles.
Incompatibility	acids oxidizing agents
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 Safety glasses.

Body Work uniform or laboratory coat.

Respiratory Wear appropriate respirator when ventilation is inadequate.

Hands Gloves (impervious).

Protective Clothing (Pictograms)



Exposure Limits **2-Butoxyethanol**
TWA: 25 (ppm)
TWA: 50 (ppm) from OSHA (PEL)

Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Liquid. (Liquid.)	Odor	Pleasant. (Slight.)
Molecular Weight	Not applicable.	Taste	Burning. (Strong.)
pH	11.5 to 12.5 [Basic.]	Color	Clear Blue. (Light.)
Boiling/Condensation Point	213°F initial		
Melting/Freezing Point	Not available.		
Critical Temperature	Not available.		

Instability Temperature	Not available.
Specific Gravity	1.01 (Water = 1)
Vapor Pressure	20mm Hg @ 68°F
Vapor Density	>1 (Air = 1)
Volatility	90
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 applicable.
Flash Points	CLOSED CUP: >98.889°C (210°F).
Flammable Limits	Not applicable.
Fire Hazards in Presence of Various Substances	Not applicable.
Explosion Hazards in Presence of Various Substances	Not applicable

Section 10. Stability and Reactivity Data

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

Section 11. Toxicological Information

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	<p><i>Eyes</i> Very hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching.</p> <p><i>Skin</i> Very hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.</p> <p><i>Inhalation</i> Hazardous in case of inhalation.</p> <p><i>Ingestion</i> Hazardous in case of ingestion.</p>
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	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 a TDG controlled material.



PIN UN, Proper Shipping Name, PG Not applicable.

Maritime Transportation Not available.

Special Provisions for Transport Not available.

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

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	No products were found.
		SARA 311/312: 2-Butoxyethanol SARA 313: 2- Butoxyethanol

DSD (EEC)

This product is not classified according to the EU regulations.

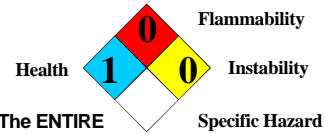
International Regulations Lists

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.

Section 16. Other Information

Validated by CRushton on 3/20/2004.

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 3/20/2004.

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