




Material Safety Data Sheet

This MSDS is prepared in accordance with OSHA 29 CFR 1910.1200

	CLASS E: Corrosive liquid.	Class: Corrosive material
WHMIS (Pictograms)	WHMIS (Classification)	HCS

Section 1. Chemical Product and Company Identification

Product Name/ Trade name	Betco Chlorinated Sanitizer	Code	345
Synonym	Chlorinated Sanitizer	CAS #	Mixture
Chemical Family	Not available.	Validation Date	3/26/2004
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) Sodium Hypochlorite	7681-52-9	10-15	Not available.	Not available.

Section 3. Hazards Identification

Potential Acute Health Effects	Corrosive to eyes and skin. Harmful if swallowed. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. May aggravate existing respiratory conditions such as asthma.
Potential Chronic Health Effects	Over-exposure by inhalation may cause respiratory irritation. Prolonged exposure may result in skin burns and ulcerations. May aggravate existing respiratory conditions such as asthma.
Carcinogenic Effects	Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

Section 4. First Aid Measures

Eye Contact	Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Check for and remove any contact lenses after the first 5 minutes, then continue rinsing the eye. Seek immediate medical attention.
Skin Contact	Rinse skin with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for further treatment advice.
Inhalation	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration., preferably mouth to mouth if possible. Call a poison control center or doctor for further treatment advice.
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	Hypochlorous Acid (HOCL), Chlorine
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
Special Remarks on Fire Hazards	Not available.
Special Remarks on Explosion Hazards	Not available.


Section 6. Accidental Release Measures

Small Spill and Leak	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.
Large Spill and Leak	Absorb with DRY earth, sand or other non-combustible material. Do not allow any potentially contaminated water including rain water, runoff from fire fighting or spills to enter any waterway, sewer or drain. Prevent entry into sewers, basements or confined areas; dike if needed. Warn personnel to move away.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product.

Section 7. Handling and Storage

Precautions	Keep locked up. Keep container dry. Keep away from heat. Keep away from sources of ignition. Do not ingest. Do not breathe gas/fumes/ vapor/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. Keep away from incompatibles such as oxidizing agents, acids, ammonia, and other cleaning agents.
Incompatibility	Extremely reactive or incompatible with oxidizing agents, acids, ammonia. Do NOT mix with other cleaning agents. Mixing with any of the above may result in the release of chlorine gas.
Storage	Corrosive materials should be stored in a separate safety storage cabinet or room. Keep away from direct sunlight or strong incandescent light. Keep away from incompatibles. Not for use or storage in or around the home. Keep out of the reach of children. Store in a dry, cool and well ventilated area.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Use only in well-ventilated areas. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits.
Personal Protection	<p><i>Eyes</i> Splash goggles.</p> <p><i>Body</i> Overalls buttoned to the neck and wrist.</p> <p><i>Respiratory</i> Respirator selection must be based on known or anticipated exposure levels, the hazards of the product, and the safe working limits of the selected respirator. If a respirator is determined to be required, use respirator with chlorine cartridge.</p> <p><i>Hands</i> Gloves, Butyl rubber.</p>
Protective Clothing (Pictograms)	
Exposure Limits	Not available.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Liquid.	Odor	Characteristic.
Molecular Weight	Not applicable.	Taste	
pH	13 to 14 [Basic.]	Color	Yellowish. (Light.)
Boiling/Condensation Point	100°C (212°F)		
Melting/Freezing Point			
Critical Temperature			
Instability Temperature			
Specific Gravity	1.16 (Water = 1)		
Vapor Pressure	Not available.		
Vapor Density	>1 (Air = 1)		
Volatility	Not available.		
VOC	Not available.		
Evaporation Rate	<1 compared to Butyl acetate.		
Dispersion Properties	See solubility in water.		
Solubility	Easily soluble in cold water, hot water.		
The Product is:	May be combustible at high temperature.		
Auto-ignition Temperature	Not available.		
Flash Points	CLOSED CUP: >98.889°C (210°F).		
Flammable Limits	Not available.		
Fire Hazards in Presence of Various Substances	Not available.		
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.		

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Incompatibility with Various Substances	Extremely reactive or incompatible with oxidizing agents, acids, ammonia. Do NOT mix with other cleaning agents. Mixing with any of the above may result in the release of chlorine gas.
Hazardous Decomposition Products	Hypochlorous Acid, Chlorine

Section 11. Toxicological Information

Routes of Entry	Absorbed through skin. Eye contact. Inhalation. Ingestion.
Toxicity to Animals	LD50: Not available. LC50: Not available.
Acute Effects on Humans	<p><i>Eyes</i> Extremely hazardous in case of eye contact (irritant, corrosive). Inflammation of the eye is characterized by redness, watering, and itching. Eye contact can result in corneal damage or blindness.</p> <p><i>Skin</i> Skin contact can produce inflammation and blistering. Skin contact can produce inflammation and blistering. Skin contact may produce burns.</p> <p><i>Inhalation</i> Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath.</p> <p><i>Ingestion</i></p>
Chronic Effects on Humans	Over-exposure by inhalation may cause respiratory irritation. Prolonged exposure may result in skin burns and ulcerations. May aggravate existing respiratory conditions such as asthma.
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	Not available.



Section 12. Ecological Information

Ecotoxicity	Not available.
BOD5 and COD	Not available.
Products of Biodegradation	Not available.
Toxicity of the Products of Biodegradation	Not available.
Special Remarks on the Products of Biodegradation	Not available.

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	Shipping name: Hypochlorite Solution (Sodium Hypochlorite) UNNA: 1791 PG: III

Maritime Transportation Not available.

Special Provisions for Transport Not available.

Section 15. Other Regulatory Information and Pictograms

WHMIS (Classification) CLASS E: Corrosive liquid.



Regulatory Lists

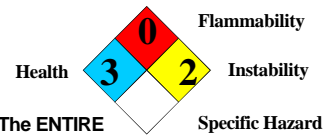
Other Regulations OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications	HCS (U.S.A.)	Class: Corrosive material
	USA Regulatory Lists	No products were found.
	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	3
Flammability	0
Physical Hazard	2

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 3/26/2004.

Verified by CRushton.

Printed 3/27/2004.

Information Contact **Betco Corporation**
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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 3/26/2004.

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