





Material Safety Data Sheet

This MSDS is prepared in accordance with OSHA 29 CFR 1910.1200

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

Product Name/ Trade name	Restrain Peroxide Cleaner Concentrate	Code	336
Synonym	Hydrogen Peroxide Cleaner	CAS #	Mixture.
Chemical Family	Not Applicable	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) Hydrogen Peroxide	7722-84-1	0-5	Not available.	Not available.
2) Anionic Surfactant	9004-82-4	0-5	Not available.	Not available.
3) Nonionic Surfactant	9016-45-9	0-5	Not available.	Not available.
4) Sodium Lauryl Sulfate	151-21-3	0-5	Not available.	Not available.

Section 3. Hazards Identification

Potential Acute Health Effects	Hazardous in case of eye contact (irritant). Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation. Non-corrosive for skin. Non-sensitizer for skin. Non-permeator by skin. Non-corrosive to the eyes.
Potential Chronic Health Effects	Repeated or prolonged exposure is not known to aggravate medical condition.
Carcinogenic Effects	Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

Section 4. First Aid Measures

Eye Contact	Avoid contact with eyes. Flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek medical attention.
Skin Contact	After contact with skin, wash immediately with plenty of water. Seek medical attention, if irritation persists.
Inhalation	Allow the victim to rest in a well ventilated area.
Ingestion	Do not induce vomiting. Have conscious person drink several glasses of water. Seek immediate medical attention. NEVER give an unconscious person anything to ingest.

Section 5. Fire Fighting Measures

Products of Combustion	Oxygen
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 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 heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Avoid contact with eyes. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label.
Incompatibility	Slightly reactive to reactive with oxidizing agents.
Storage	Keep away from direct sunlight or strong incandescent light. Keep away from heat, sparks and flame. Keep away from incompatibles. Use with adequate ventilation.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Good general ventilation should be sufficient to control airborne levels.
Personal Protection	
<i>Eyes</i>	Safety glasses.
<i>Body</i>	No special recommendations.
<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	Sodium Hydroxide TWA: 2 (mg/m ³) from OSHA (PEL) [United States] Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Liquid.	Odor	Minty.
Molecular Weight	Not applicable.	Taste	Not available.
pH	3.5 to 4.5 [Acidic.]	Color	Water White.
Boiling/Condensation Point	212 F		
Melting/Freezing Point	Not available.		

Critical Temperature	Not available.
Instability Temperature	Not available.
Specific Gravity	1.002 (Water = 1)
Vapor Pressure	>1
Vapor Density	>1 (Air = 1)
Volatility	Not available.
VOC	Not available.
Evaporation Rate	Not available.
Dispersion Properties	See solubility in water.
Solubility	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	Containers may explode when heated.

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Incompatibility with Various Substances	Slightly reactive to reactive with oxidizing agents.
Hazardous Decomposition Products	Not available.

Section 11. Toxicological Information

Routes of Entry	Absorbed through skin. Eye contact. Inhalation. Ingestion.
Toxicity to Animals	Acute oral toxicity (LD50): 2910 mg/kg [Rat]. (Phosphonic Acid). Acute dermal toxicity (LD50): >6310 mg/kg [Rabbit]. (Phosphonic Acid).
Acute Effects on Humans	<p><i>Eyes</i> Hazardous in case of eye contact (irritant). Non-corrosive to the eyes.</p> <p><i>Skin</i> Slightly hazardous in case of skin contact (irritant).</p> <p><i>Inhalation</i> Slightly hazardous in case of inhalation.</p> <p><i>Ingestion</i> Slightly hazardous in case of ingestion.</p>
Chronic Effects on Humans	Repeated or prolonged exposure is not known to aggravate medical condition.
Special Remarks on Toxicity to Animals	Algae growth inhibition due to ability to complex nutrients, not necessarily toxicity (Phosphonic Acid)
Special Remarks on Chronic Effects on Humans	Not available.

Section 12. Ecological Information

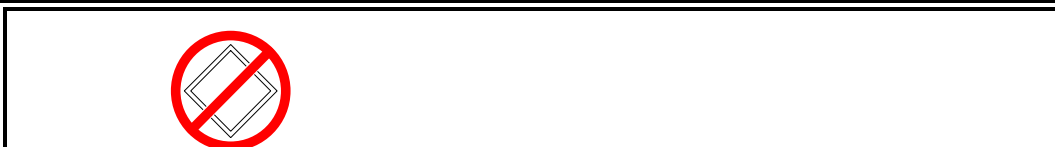
Ecotoxicity	Not available.
BOD5 and COD	Not available.
Products of Biodegradation	These products are carbon oxides (CO, CO2) and water.
Toxicity of the Products of Biodegradation	The product itself and its products of degradation are not toxic.
Special Remarks on the Products of Biodegradation	Not available.

Section 13. Disposal Considerations

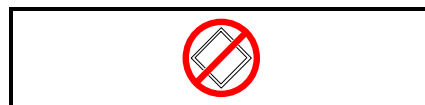
Waste Information	Waste must be disposed of in accordance with federal, state and local environmental control regulations.
Waste Stream	Not available.

Section 14. Transport Information

DOT (U.S.A)
(Pictograms)



TDG Classification 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) CLASS D-2B: Material causing other toxic effects (TOXIC).



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.) Class: Irritating substance.

USA Regulatory Lists

SARA 311/312 MSDS distribution - chemical inventory - hazard identification:
Sodium Hydroxide: immediate health hazard

DSD (EEC) This product is not classified according to the EU regulations.

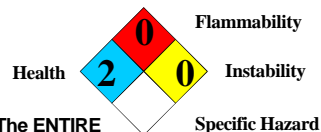
International Regulations Lists

No products were found.

**Hazardous Material
Information System
(U.S.A.)**

Health	2
Flammability	0
Physical Hazard	1

**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**
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 3/26/2004.

Restrain Peroxide Cleaner Concentrate

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