



Material Safety Data Sheet

This MSDS is prepared in accordance with OSHA 29 CFR 1910.1200



CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).
WHMIS Class D-1B: Material causing immediate and serious toxic effects (TOXIC).

HCS Class: Flammable liquid having a flash point lower than 37.8°C (100°F).
HCS CLASS: May be toxic for the nervous system.

WHMIS (Pictograms)

WHMIS (Classification)

HCS

Section 1. Chemical Product and Company Identification

Product Name/ Trade name	Deep Freeze	Code	132
Synonym	Cold Room Cleaner	CAS #	Mixture.
Chemical Family	Not available.	Validation Date	3/20/2004
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		



Section 2. Composition and Information on Ingredients

Name	CAS #	% by Weight	Exposure Limits	LC ₅₀ /LD ₅₀
1) Methanol	67-56-1	40-45	TWA: 200 (ppm) TWA: 200 (ppm) from OSHA (PEL) [United States] STEL: 250 (ppm)	Not available.
2) 2-Butoxyethanol	111-76-2	0-5	TWA: 20 (ppm) from ACGIH (TLV) [United States] TWA: 50 (ppm) from OSHA (PEL) [United States]	ORAL (LD50): Acute: 1746 mg/kg [Rat].

Section 3. Hazards Identification

Potential Acute Health Effects	May be fatal if swallowed. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Skin contact can produce inflammation and blistering. Harmful if absorbed through the skin. This product is an eye irritant.
Potential Chronic Health Effects	Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs. Severe over-exposure can result in death.
Carcinogenic Effects	Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

Section 4. First Aid Measures

Eye Contact	Flush eyes with large quantities of water, lifting eyelids. Seek medical attention if irritation persists.
Skin Contact	Remove contaminated clothing. Wash affected area with soap and water. Seek medical attention if irritation persists.
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. INDUCE VOMITING by sticking finger in throat. NEVER give an unconscious person anything to ingest.

Section 5. Fire Fighting Measures

Products of Combustion	Not available.
Fire Fighting Media and Instructions	Cool containing vessels with flooding quantities of water until well after fire is out.
Special Remarks on Fire Hazards	Water is very effective.
Special Remarks on Explosion Hazards	Drums heated by a fire can explode.


Section 6. Accidental Release Measures

Small Spill and Leak	Absorb with an inert material.
Large Spill and Leak	Flammable liquid. Poisonous liquid. Prevent entry into sewers, basements or confined areas; dike if needed. Initiate company's spill response procedures immediately. Evacuate area. Use full chemical resistant suit and approved/certified self-contained breathing apparatus worn by authorized persons.
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. Ground all equipment containing material. 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
Incompatibility	Strong oxidizers.
Storage	Flammable materials should be stored in a separate safety storage cabinet or room. Highly toxic or infectious materials should be stored in a separate locked safety storage cabinet or room. 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	Use only in well-ventilated areas
Personal Protection	
<i>Eyes</i>	Splash goggles.
<i>Body</i>	Lab coat.
<i>Respiratory</i>	Wear appropriate respirator when ventilation is inadequate.
<i>Hands</i>	Gloves (impervious).
Protective Clothing (Pictograms)	

Exposure Limits**Methanol**

TWA: 200 (ppm)
 TWA: 200 (ppm) from OSHA (PEL) [United States]
 STEL: 250 (ppm)

2-Butoxyethanol

TWA: 25 (ppm)
 TWA: 50 (ppm) from OSHA (PEL) [United States]

Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Liquid.	Odor	Characteristic.
Molecular Weight	Not applicable.	Taste	Not available.
pH	7.5 to 8.5 [Basic.]	Color	Violet.
Boiling/Condensation Point	150 to 220°F		
Melting/Freezing Point	Not available.		
Critical Temperature	Not available.		
Instability Temperature	Not available.		
Specific Gravity	0.93 (Water = 1)		
Vapor Pressure	30mm Hg @ 68°F		
Vapor Density	>1 (Air = 1)		
Volatility	99		
VOC	Not available.		
Evaporation Rate	>1		
Dispersion Properties	See solubility in water.		
Solubility	Soluble		
The Product is:	Flammable.		
Auto-ignition Temperature	Not available.		
Flash Points	CLOSED CUP: 15.556°C (60°F).		
Flammable Limits	LOWER: 2% UPPER: 12%		
Fire Hazards in Presence of Various Substances	Highly flammable.		
Explosion Hazards in Presence of Various Substances	Drums Heated By Fire Can explode		

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Incompatibility with Various Substances	Strong oxidizers.
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): 1746 mg/kg [Rat]. (2-Butoxyethanol).
Acute Effects on Humans	
<i>Eyes</i>	Severe eye irritant. May cause redness, tearing, or blurred vision.
<i>Skin</i>	Skin irritant. May cause redness and swelling. Prolonged or repeated contact may cause dermatitis. Harmful if absorbed through the skin.
<i>Inhalation</i>	Vapors may be irritating to the mucous membranes of the nose, throat, and lungs. Excessive exposure may cause drowsiness, dizziness, loss of coordination, and fatigue.
<i>Ingestion</i>	Irritating to the gastrointestinal system. May cause dizziness, headache, nausea, or possible blindness. May be fatal if swallowed.
Chronic Effects on Humans	Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs. Severe over-exposure can result in death.
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	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	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 3: Flammable liquid.



PIN UN, Proper Shipping Name, PG Shipping name: FLAMMABLE LIQUIDS, N.O.S. UNNA: UN1993 PG: II

Maritime Transportation Not available.

Special Provisions for Transport

Not available.

Section 15. Other Regulatory Information and Pictograms

WHMIS (Classification) CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).
WHMIS Class D-1B: Material causing immediate and serious toxic effects (TOXIC).



Regulatory Lists No products were found.

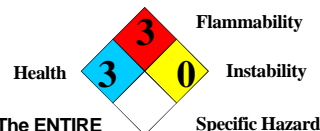
Other Regulations OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications	HCS (U.S.A.)	HCS Class: Flammable liquid having a flash point lower than 37.8°C (100°F). HCS CLASS: May be toxic for the nervous system.
	USA Regulatory Lists	California prop. 65: This product contains the following ingredients for which the State of California has found to cause reproductive harm (female) which would require a warning under the statute: Ethylene Oxide < 1 ppm California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Ethylene Oxide < 1 ppm Pennsylvania RTK: Propylene Glycol Massachusetts RTK: Ethylene Oxide SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Methanol; 2-Butoxyethanol: immediate health hazard, delayed health hazard SARA 313 toxic chemical notification and release reporting: Methanol; 2-Butoxyethanol
	DSD (EEC)	R11- Highly flammable.
	International Regulations Lists	No products were found.

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

Health	3
Flammability	3
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.*

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