





Material Safety Data Sheet

This MSDS is prepared in accordance with OSHA 29 CFR 1910.1200

	B-3	HCS CLASS: Combustible liquid having a flash point between 37.8°C (100°F) and 93.3°C (200°F).
WHMIS (Pictograms)	WHMIS (Classification)	HCS

Section 1. Chemical Product and Company Identification

Product Name/ Trade name	CitruSolv WR	Code	212
Synonym	Natural Degreaser Deodorizer - Water Rinsable	CAS #	Not applicable.
Chemical Family	Not available.	Validation Date	3/2/2007
Chemical Formula	Not applicable.	Print Date	3/23/2007
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.		
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
Petroleum Distillates	64742-96-7	60-65	TWA: 100 (ppm) TWA: 100 (ppm) from OSHA (PEL) [United States]	Not available.
Low Odor Base Solvent	64742-47-8	20-25	TWA: 100 (ppm) TWA: 100 (ppm) from OSHA (PEL) [United States]	Not available.
Citrus Terpenes	5989-27-5	1-5	Not available.	ORAL (LD50): Acute: 5000 mg/kg [Rat]. DERMAL (LD50): Acute: 5000 mg/kg [Rabbit].
Nonionic Surfactant	9016-45-9	1-5	Not available.	Not available.

Section 3. Hazards Identification

Potential Acute Health Effects	Harmful if swallowed. 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	Flush with large quantities of water. Seek medical attention.
Skin Contact	Remove contaminated clothing. Wash affected areas with soap and water. Seek medical attention if irritation persists.
Inhalation	Get to fresh air. If breathing is difficult, give oxygen. Seek medical attention if symptoms persist.
Ingestion	Do not induce vomiting. Seek medical attention immediately.

Section 5. Fire Fighting Measures

Products of Combustion	Not available.
Fire Fighting Media and Instructions	Foam, CO2, or dry chemical.
Special Remarks on Fire Hazards	Avoid use of water streams.
Special Remarks on Explosion Hazards	Drums heated by a fire can explode.

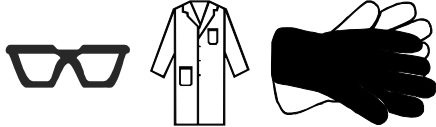
Section 6. Accidental Release Measures

Small Spill and Leak	Safety glasses.
Large Spill and Leak	Absorb with DRY earth, sand or other non-combustible material.
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	Avoid breathing vapors of this product. Avoid contact with skin and eyes.
Incompatibility	Strong oxidizers.
Storage	Combustible materials should be stored away from extreme heat and away from strong oxidizing agents. Keep out of reach of children. For Institutional and Commercial Use

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Local exhaust ventilation should be provided.
Personal Protection	<i>Eyes</i> Splash goggles.
	<i>Body</i> No special protective clothing is required.
	<i>Respiratory</i> Wear appropriate respirator when ventilation is inadequate.
	<i>Hands</i> Gloves (impervious).
Protective Clothing (Pictograms)	
Exposure Limits	Petroleum Distillates TWA: 100 (ppm) TWA: 100 (ppm) from OSHA (PEL) Low Odor Base Solvent TWA: 100 (ppm) TWA: 100 (ppm) from OSHA (PEL) Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Liquid.	Odor	Pleasant.
Molecular Weight	Not applicable.	Taste	Not available.
pH	Not available.	Color	Colorless.
Boiling/Condensation Point	350°F initial		
Melting/Freezing Point	Not available.		
Critical Temperature	Not available.		
Instability Temperature	Not available.		
Specific Gravity	0.8 (Water = 1)		
Vapor Pressure	<20mm Hg @ 68°F		
Vapor Density	>1 (Air = 1)		
Volatility	>90% (w/w).		
VOC	91 (%)		
Evaporation Rate	<1		
Dispersion Properties	Not available.		
Solubility	Not available.		
The Product is:	COMBUSTIBLE.		
Auto-ignition Temperature	Not available.		
Flash Points	CLOSED CUP: 61.667°C (143°F).		
Flammable Limits	LOWER: 1% UPPER: 6%		
Fire Hazards in Presence of Various Substances	COMBUSTIBLE.		
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	Will not occur.

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

Eyes Eye irritant. May cause redness, burning, or tearing.

Skin Prolonged or repeated contact may cause moderate irritation, defatting, and dermatitis.

Inhalation May be irritating to the mucous membranes of the nose, throat, and lungs. High concentrations may cause headache, dizziness, nausea, and fatigue.

Ingestion May be irritating to the gastrointestinal system. Nausea, vomiting, and diarrhea expected with large doses. Aspiration of material into the lungs can cause chemical pneumonitis.

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 3



PIN UN, Proper Shipping Name, PG Shipping name: FLAMMABLE LIQUIDS, N.O.S. UNNA: 1993 PG: III

(FOR SHIPPING GROUND TRANSPORT IN NORTH AMERICA
NA : 1993 COMBUSTIBLE LIQUIDS N.O.S. PG:III)

Please consult transportation regulations for applicable size exemptions

Maritime Transportation Not available.

Special Provisions for Transport Not available.

Section 15. Other Regulatory Information and Pictograms

WHMIS (Classification) B-3



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: Combustible liquid having a flash point between 37.8°C (100°F) and 93.3°C (200°F).

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
Massachusetts RTK: Ethylene Oxide
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Citrus Terpenes: fire, immediate health hazard

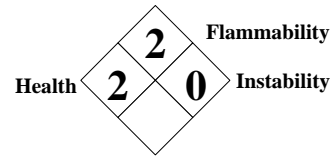
DSD (EEC) R10- Flammable.

International Regulations Lists No products were found.

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

Health	2
Flammability	2
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. **Specific Hazard**

Section 16. Other Information

Validated by CRushton on 3/2/2007.

Verified by CRushton.

Printed 3/23/2007.

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

Continued on Next Page