



# Material Safety Data Sheet

This MSDS is prepared in accordance with OSHA 29 CFR 1910.1200



**CLASS B-3:** Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).  
**WHMIS Class D-2B:** Material causing other toxic effects (TOXIC).

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

WHMIS (Pictograms)

WHMIS (Classification)

HCS

## Section 1. Chemical Product and Company Identification

<b>Product Name/ Trade name</b>	<b>CitruSolv HF</b>	<b>Code</b>	<b>214</b>
<b>Synonym</b>	Natural Degreaser Deodorizer - High Flash	<b>CAS #</b>	Not applicable.
<b>Chemical Family</b>	Not available.	<b>Validation Date</b>	3/2/2007
<b>Chemical Formula</b>	Not applicable.	<b>Print Date</b>	3/23/2007
<b>Manufacturer/ Supplier</b>	Betco Corporation 1001 Brown Avenue Toledo, Ohio 43607 (419) 241-2156	<b>In Case of Emergency</b>	Chemtrec (800) 424-9300
<b>TSCA</b>	TSCA Inventory: All components listed or are exempt from listing.		
<b>DSL/ NDSL</b>	All components listed unless noted elsewhere on this MSDS		
		<b>Protective Clothing</b> 	

## Section 2. Composition and Information on Ingredients

Name	CAS #	% by Weight	Exposure Limits	LC <sub>50</sub> /LD <sub>50</sub>
Petroleum Distillates	64742-96-7	60-63	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	10-13	Not available.	ORAL (LD50): Acute: 5000 mg/kg [Rat]. DERMAL (LD50): Acute: 5000 mg/kg [Rabbit].

## Section 3. Hazards Identification

<b>Potential Acute Health Effects</b>	Very hazardous in case of ingestion. Hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation. Non-corrosive for skin.
<b>Potential Chronic Health Effects</b>	Over-exposure by inhalation may cause respiratory irritation. May aggravate existing respiratory conditions such as asthma.
<b>Carcinogenic Effects</b>	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. Call a poison control center immediately for treatment advice. NEVER give an unconscious person anything to ingest.

### 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. Absorb with an inert material and place in an appropriate waste disposal container.
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.

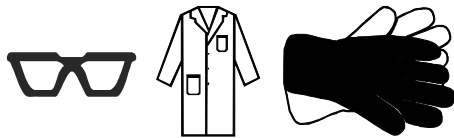
### Section 7. Handling and Storage

Precautions	Avoid contact with skin and eyes. DO NOT ingest. Keep away from sources of ignition.
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	Good general ventilation should be sufficient to control airborne levels.
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.

Protective Clothing (Pictograms)



Exposure Limits	<b>Petroleum Distillates</b> TWA: 100 (ppm) TWA: 100 (ppm) from OSHA (PEL)  <b>Low Odor Base Solvent</b> TWA: 100 (ppm) TWA: 100 (ppm) from OSHA (PEL)
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Consult local authorities for acceptable exposure limits.

### **Section 9. Physical and Chemical Properties**

<b>Physical State and Appearance</b>	Liquid.	<b>Odor</b>	Pleasant.
<b>Molecular Weight</b>	Not applicable.	<b>Taste</b>	Not available.
<b>pH</b>	Not available.	<b>Color</b>	Colorless.
<b>Boiling/Condensation Point</b>	350°F initial		
<b>Melting/Freezing Point</b>	Not available.		
<b>Critical Temperature</b>	Not available.		
<b>Instability Temperature</b>	Not available.		
<b>Specific Gravity</b>	0.8 (Water = 1)		
<b>Vapor Pressure</b>	<20mm Hg @ 68°F		
<b>Vapor Density</b>	>1 (Air = 1)		
<b>Volatility</b>	>90% (w/w).		
<b>VOC</b>	91 (%)		
<b>Evaporation Rate</b>	<1 compared to Water		
<b>Dispersion Properties</b>	Not available.		
<b>Solubility</b>	Not available.		
<b>The Product is:</b>	Flammable.		
<b>Auto-ignition Temperature</b>	Not available.		
<b>Flash Points</b>	CLOSED CUP: 62.778°C (145°F).		
<b>Flammable Limits</b>	LOWER: 1% UPPER: 6%		
<b>Fire Hazards in Presence of Various Substances</b>	No specific information is available in our database regarding the flammability of this product in presence of various materials.		
<b>Explosion Hazards in Presence of Various Substances</b>	Drums Heated By Fire Can explode		

### **Section 10. Stability and Reactivity Data**

<b>Stability</b>	The product is stable.
<b>Incompatibility with Various Substances</b>	Strong oxidizers.
<b>Hazardous Decomposition Products</b>	Will not occur.

## Section 11. Toxicological Information

<b>Routes of Entry</b>	Absorbed through skin. Eye contact. Inhalation. Ingestion.
<b>Toxicity to Animals</b>	LD50: Not available. LC50: Not available.
<b>Acute Effects on Humans</b>	<p><i>Eyes</i> Eye irritant. May cause redness, burning, or tearing.</p> <p><i>Skin</i> Prolonged or repeated contact may cause moderate irritation, defatting, and dermatitis.</p> <p><i>Inhalation</i> May be irritating to the mucous membranes of the nose, throat, and lungs. High concentrations may cause headache, dizziness, nausea, and fatigue.</p> <p><i>Ingestion</i> 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.</p>
<b>Chronic Effects on Humans</b>	Over-exposure by inhalation may cause respiratory irritation. May aggravate existing respiratory conditions such as asthma.
<b>Special Remarks on Toxicity to Animals</b>	No additional remark.
<b>Special Remarks on Chronic Effects on Humans</b>	No additional remark.

## Section 12. Ecological Information

<b>Ecotoxicity</b>	Not available.
<b>BOD5 and COD</b>	Not available.
<b>Products of Biodegradation</b>	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
<b>Toxicity of the Products of Biodegradation</b>	Not available.
<b>Special Remarks on the Products of Biodegradation</b>	No additional remark.

## Section 13. Disposal Considerations

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

## Section 14. Transport Information

**DOT (U.S.A)  
(Pictograms)**



**TDG Classification**

3



**PIN UN, Proper Shipping Name, PG** Shipping name: Combustible Liquid NOS UNNA: 1993 PG: III

Maritime Transportation Not available.

Special Provisions for Transport Not available.

### Section 15. Other Regulatory Information and Pictograms

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

**USA Regulatory Lists** No products were found.

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

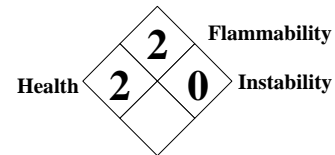
**DSD (EEC)** This product is not classified according to the EU regulations.

**International Regulations Lists** No products were found.

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

Health	2
Flammability	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.

### 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.

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