



Material Safety Data Sheet

This MSDS is prepared in accordance with OSHA 29 CFR 1910.1200



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

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

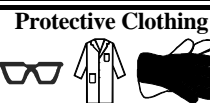
WHMIS (Pictograms)

WHMIS (Classification)

HCS

Section 1. Chemical Product and Company Identification

Product Name/ Trade name	Citrusolv 40	Code	211
Synonym	Degreaser	CAS #	Mixture.
Chemical Family	Not available.	Validation Date	3/22/2004
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) Citrus Terpenes	5989-27-5	35-39	Not available.	ORAL (LD50): Acute: 5000 mg/kg [Rat]. DERMAL (LD50): Acute: 5000 mg/kg [Rabbit].
2) Propylene Glycol NButyl Ether	5131-66-8	5-10	Not available.	Not available.
3) Coconut Diethanolamide	8051-30-7	5-10	Not available.	Not available.
4) Anionic Surfactant	5324-84-5	0-5	Not available.	Not available.
5) Nonionic Surfactant	9016-45-9	0-5	Not available.	Not available.
6) Dye	N/A	0-0.5	Not available.	Not available.

Section 3. Hazards Identification

Potential Acute Health Effects	Harmful if swallowed. This product is an eye irritant.
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	Avoid contact with eyes. In case of contact with eyes, rinse immediately with plenty of water. Seek medical attention.
Skin Contact	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

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. Do not induce vomiting. NEVER give an unconscious person anything to ingest.

Section 5. Fire Fighting Measures

Products of Combustion	Not available.
Fire Fighting Media and Instructions	Use DRY chemicals, CO2, or foam.
Special Remarks on Fire Hazards	May explode when heated.
Special Remarks on Explosion Hazards	No additional remark.

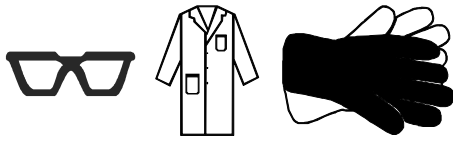
Section 6. Accidental Release Measures

Small Spill and Leak	Warn personnel to move away. 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 breathing vapors or spray mists. In case of insufficient ventilation, wear suitable respiratory equipment. Keep away from heat.
Incompatibility	combustible materials
Storage	Combustible materials should be stored away from extreme heat and away from strong oxidizing agents. 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	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	Not available.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Liquid	Odor	Citrus (Strong.)
Molecular Weight	Not applicable.	Taste	Not available.
pH	Not available.	Color	Clear
Boiling/Condensation Point	156.8888889°C (314.4°F)		
Melting/Freezing Point	Not available.		
Critical Temperature	Not available.		
Instability Temperature	Not available.		
Specific Gravity	0.92 (Water = 1)		
Vapor Pressure	<10 mm of Hg (@ 20°C)		
Vapor Density	>1 (Air = 1)		
Volatility	Not available.		
VOC	Not available.		
Evaporation Rate	<1 compared to Water		
Dispersion Properties	Not available.		
Solubility	Soluble		
The Product is:	COMBUSTIBLE.		
Auto-ignition Temperature	Not Available		
Flash Points	CLOSED CUP: 51.111°C (124°F).		
Flammable Limits	Not Available		
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	combustible materials
Hazardous Decomposition Products	Not available.

Section 11. Toxicological Information

Routes of Entry Eye contact. Ingestion. Inhalation. Skin contact.

Toxicity to Animals LD50: Not available.
LC50: Not available.

Acute Effects on Humans

Eyes Very hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching.

Skin Hazardous in case of skin contact (irritant). Non-sensitizer for skin. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Inhalation Hazardous in case of inhalation.

Ingestion Very hazardous in case of ingestion.

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 Applicable

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 Not a TDG controlled material.



PIN UN, Proper Shipping Name, PG Not applicable.

Maritime Transportation Not available.

Special Provisions for Transport

Not available.

Section 15. Other Regulatory Information and Pictograms

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



Regulatory Lists No products were found.

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

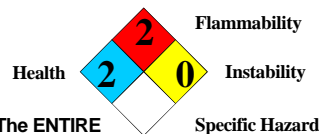
Other Classifications

HCS (U.S.A.)	Class: Irritating substance. 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 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.

Section 16. Other Information

Validated by CRushton on 3/22/2004.

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.

Continued on Next Page