




Material Safety Data Sheet

This MSDS is prepared in accordance with OSHA 29 CFR 1910.1200

	Not controlled under WHMIS (Canada).	Not controlled under the HCS (United States).
WHMIS (Pictograms)	WHMIS (Classification)	HCS

Section 1. Chemical Product and Company Identification

Product Name/ Trade name	Knuckle Under Heavy Duty Hand Cleaner With Citrus Solvents and Pumice	Code	762
Synonym	Not available.	CAS #	Mixture.
Chemical Family	Not Applicable	Validation Date	3/11/2005
Chemical Formula	Not applicable.	Print Date	3/11/2005
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
Pumice	N/A	10 - 15	Not available.	Not available.
Low Odor Base Solvent	64742-47-8	5 - 10	TWA: 100 ppm OSHA (United States).	Not available.
Petroleum Distillates	64742-47-8	1 - 5	TWA: 100 ppm OSHA (United States).	Not available.
Triethanolamine	102-71-6	1 - 5	TWA: 300 ppm Not available.	ORAL (LD50): Acute: 4000 mg/kg [Rat].

Section 3. Hazards Identification

Potential Acute Health Effects	This product is an eye irritant.
Potential Chronic Health Effects	Repeated skin exposure can produce local skin destruction, or dermatitis.
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.
Skin Contact	Repeated skin exposure can produce local skin destruction, or dermatitis. In case of prolonged irritation seek medical attention.
Inhalation	No specific data.
Ingestion	Seek medical attention.

Section 5. Fire Fighting Measures

Products of Combustion	Not available.
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	Absorb with an inert 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	Gloves. Safety glasses.

Section 7. Handling and Storage

Precautions	Avoid contact with eyes
Incompatibility	Reactive with oxidizing agents, reducing agents.
Storage	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>	No special recommendations.
<i>Body</i>	No special recommendations.
<i>Respiratory</i>	No special recommendations.
<i>Hands</i>	No special recommendations.
Protective Clothing (Pictograms)	
Exposure Limits	Low Odor Base Solvent TWA: 100 (ppm) TWA: 100 (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	Citrus
Molecular Weight	Not applicable.	Taste	Not available.
pH	7 to 8 [Basic.]	Color	Orange.
Boiling/Condensation Point	>100°C (212°F)		
Melting/Freezing Point	Not available.		
Critical Temperature	Not available.		
Instability Temperature	Not available.		
Specific Gravity	1.026 (Water = 1)		
Vapor Pressure	Not available.		
Vapor Density	Not available.		
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: >100°C (212°F).		
Flammable Limits	Not available.		
Fire Hazards in Presence of Various Substances	Not available.		
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.		

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Incompatibility with Various Substances	Reactive with oxidizing agents, reducing agents.
Hazardous Decomposition Products	Not available.

Section 11. Toxicological Information

Routes of Entry	Eye contact. Ingestion.
Toxicity to Animals	Acute oral toxicity (LD50): 4000 mg/kg [Rat]. (Triethanolamine). Acute dermal toxicity (LD50): 5000 mg/kg [Rabbit]. (Citrus Terpenes).
Acute Effects on Humans	<i>Eyes</i> Irritant. <i>Skin</i> Not expected to cause irritation on an acute basis. <i>Inhalation</i> According to our data base, the product will not easily enter the human body. <i>Ingestion</i> May cause gastrointestinal discomfort.
Chronic Effects on Humans	Repeated skin exposure can produce local skin destruction, or dermatitis.
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	Not available.

Section 12. Ecological Information

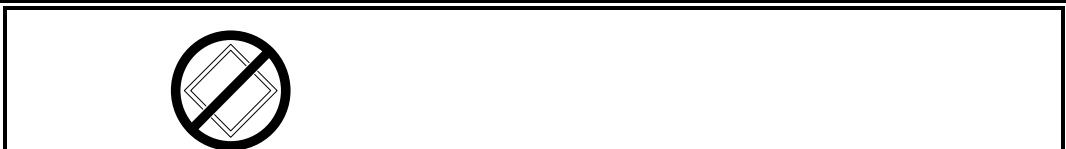
Ecotoxicity	Not available.
BOD5 and COD	Not available.
Products of Biodegradation	Not available.
Toxicity of the Products of Biodegradation	Not available.
Special Remarks on the Products of Biodegradation	Not available.

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 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) Not controlled under WHMIS (Canada).



Regulatory Lists No products were found.

Other Regulations Not available. or of its ingredients

Other Classifications

HCS (U.S.A.) Not controlled under the HCS (United States).

USA Regulatory Lists

Pennsylvania RTK: Propylene Glycol

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

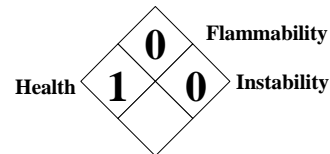
DSD (EEC)

International Regulations Lists No products were found.

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

Health	1
Flammability	0
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 DThomas on 3/11/2005.

Verified by DThomas.

Printed 3/11/2005.

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 3/11/2005.

**Knuckle Under Heavy Duty Hand
Cleaner With Citrus Solvents and
Pumice**

Page: 5/6

Continued on Next Page