



Material Safety Data Sheet

This MSDS is prepared in accordance with OSHA 29 CFR 1910.1200



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

HCS Class: Irritating substance. 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	PK Cleaner	Code	690
Synonym	Not available.	CAS #	Mixture.
Chemical Family	Cleaner.	Validation Date	7/7/2009
Chemical Formula	Not applicable.	Print Date	7/7/2009
Manufacturer/ Supplier	Betco Corporation 1001 Brown Avenue Toledo, Ohio 43607 (800) 333-2156	In Case of Emergency	CHEMTREC (800) 424-9300
TSCA	TSCA Inventory: All components listed or are exempt from listing.	Protective Clothing 	
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
Dipropylene Glycol Methyl Ether	34590-94-8	5 - 10	ACGIH TLV (United States). TWA: 100 ppm 8 hour(s). STEL: 150 ppm 15 minute(s). OSHA PEL (United States). TWA: 100 ppm 8 hour(s). ACGIH TLV (United States). TWA: 100 ppm 8 hour(s).	Not available.
2-Butoxyethanol	111-76-2	5 - 10	ACGIH (United States). TWA: 20 ppm OSHA (United States). TWA: 50 ppm	ORAL (LD50): Acute: 1746 mg/kg [Rat].
Tall Oil Fatty Acid	61790-12-3	1 - 5	Not available.	Not available.
Alcohol Alkoxylate	N/A	1 - 5	Not available.	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].

Section 3. Hazards Identification

Potential Acute Health Effects	This product may irritate eyes and skin upon contact. Irritating to mouth, throat and stomach.
Potential Chronic Health Effects	Repeated skin exposure can produce local skin destruction, or dermatitis. Over-exposure by inhalation may cause respiratory irritation. Repeated or prolonged exposure to the substance can produce blood disorders. *Information is based on animal data, relevance to humans has yet to be determined.
Carcinogenic Effects	Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.
Skin Contact	Wash with soap and water. Get medical attention if irritation develops.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion	Do not induce vomiting. Call a poison control center or doctor immediately for treatment advice.

Section 5. Fire Fighting Measures

Products of Combustion	Not established
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	COMBUSTIBLE.
Special Remarks on Explosion Hazards	No additional remark.


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 DRY earth, sand or other non-combustible material. Do not allow any potentially contaminated water including rain water, runoff from fire fighting or spills to enter any waterway, sewer or drain. Prevent entry into sewers, basements or confined areas.
Personal Protection in Case of a Large Spill	Splash goggles. Boots. Gloves. Light protective clothing.

Section 7. Handling and Storage

Precautions	Keep away from heat. Keep away from sources of ignition. Do not breathe gas/fumes/vapor/spray. Wear suitable protective clothing. Do not ingest. If ingested, seek medical advice immediately and show the container or the label.
Incompatibility	Reactive with oxidizing agents, reducing agents, acids, alkalis.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area. Keep away from incompatibles. S2- 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	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits.
Personal Protection	
<i>Eyes</i>	Safety glasses.
<i>Body</i>	Light protective clothing.
<i>Respiratory</i>	A respirator is not needed under normal and intended conditions of product use. Wear appropriate respirator when ventilation is inadequate.
<i>Hands</i>	Impervious gloves.
Protective Clothing (Pictograms)	
Exposure Limits	See Section 2 For Applicable Exposure Limits

Section 9. Physical and Chemical Properties

Physical State and Appearance	Liquid.	Odor	Characteristic.Citrus
Molecular Weight	Not applicable.	Taste	Not available.
pH	Not available.	Color	Straw color.
Boiling/Condensation Point	100°C (212°F)		
Melting/Freezing Point	May start to solidify at 0°C (32°F) based on data for: Water.		
Critical Temperature	Not available.		
Instability Temperature	Not available.		
Specific Gravity	1.005 (Water = 1)		
Vapor Pressure	Not available.		
Vapor Density	Not available.		
Volatility	>60%		
VOC	Concentrate: < 18% Diluted: < 1%		
Evaporation Rate	Not available.		
Dispersion Properties	See solubility in water, methanol, acetone.		
Solubility	Easily soluble in cold water, hot water, methanol, diethyl ether, n-octanol, acetone.		
The Product is:	May be combustible at high temperature.		
Auto-ignition Temperature	Not available.		
Flash Points	Closed cup: 52.778°C (127°F).		
Flammable Limits	Not available.		
Fire Hazards in Presence of Various Substances	Not established		

Explosion Hazards in Presence of Various Substances	Not established
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Section 10. Stability and Reactivity Data

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

Section 11. Toxicological Information

Routes of Entry	Dermal contact. Eye contact. Inhalation. Ingestion.
Toxicity to Animals	Acute oral toxicity (LD50): 1746 mg/kg [Rat]. (2-Butoxyethanol). Acute dermal toxicity (LD50): 5000 mg/kg [Rabbit]. (Citrus Terpenes). Acute toxicity of the gas (LC50): 700 ppm 7 hour(s) [Mouse]. (2-Butoxyethanol).
Acute Effects on Humans	<i>Eyes</i> Irritating to eyes.
	<i>Skin</i> Sensitization of the product: Not available. Slightly hazardous in case of skin contact (permeator).
	<i>Inhalation</i> Slightly irritating to the respiratory system.
	<i>Ingestion</i> Hazardous in case of ingestion.
Chronic Effects on Humans	Repeated skin exposure can produce local skin destruction, or dermatitis. Over-exposure by inhalation may cause respiratory irritation. Repeated or prolonged exposure to the substance can produce blood disorders. *Information is based on animal data, relevance to humans has yet to be determined.
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	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

TDG Class 3: Flammable liquid.



PIN UN, Proper Shipping Name, PG

1993 Flammable liquid, n.o.s. PG:III(Applicable when transported by ground in North America in equal to or in excess of 119 gallons) When shipped by Ground in North America in quantities less than 119 gallons, this product is not regulated under the DOT HMR.

Maritime Transportation

Not available.

Special Provisions for Transport

040 Different shipping name and UN number for international shipments (see table). 089 International consignments to be packaged in accordance with ICAO or IMDG.

Section 15. Other Regulatory Information and Pictograms

WHMIS (Classification)

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



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

USA Regulatory Lists

WARNING: This product contains chemical(s) known to the state of California to cause reproductive harm (female): Ethylene Oxide

WARNING: This product contains chemical(s) known to the state of California to cause cancer.: Ethylene Oxide

Massachusetts RTK: Ethylene Oxide

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: 2-Butoxyethanol: Fire hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard; Citrus Terpenes: Fire hazard, Immediate (Acute) Health Hazard SARA 313: 2-Butoxyethanol 7.35 %

DSD (EEC)

Harmful if swallowed. Harmful in contact with skin.

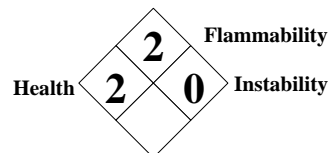
International Regulations Lists

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 LMorsch on 7/7/2009.

Verified by LMorsch.

Printed 7/7/2009.

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 7/7/2009.

PK Cleaner

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