



Material Safety Data Sheet

This MSDS is prepared in accordance with OSHA 29 CFR 1910.1200

<p>WHMIS (Pictograms)</p>	<p>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).</p> <p>WHMIS (Classification)</p>	<p>HCS Class: Irritating substance. HCS Class: Corrosive liquid.</p> <p>HCS</p>
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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 3/2/2007
Chemical Formula Not applicable.	Print Date 3/23/2007
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.	<p style="text-align: center;">Protective Clothing</p>
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].
Dodecylbenzene Sulfonic Acid (DDBSA)	27176-87-0	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	Hazardous in case of ingestion. Slightly hazardous in case of skin contact (permeator), . Irritation of the product in case of skin contact: Causes drying of the Skin. May aggravate existing eye conditions. Irritation of the product in case of eye contact: Irritant. May aggravate existing eye disorders
Potential Chronic Health Effects	Over-exposure by inhalation may cause respiratory irritation. May aggravate existing respiratory conditions. *Repeated or prolonged exposure to the substance can produce blood disorders. *Repeated or prolonged exposure to the substance can produce kidney damage. *Repeated or prolonged exposure to the substance can produce nervous system damage. *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. Cold water may be used.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion	Contact a poison control center immediately for treatment advice. Do not induce vomiting unless instructed to do so by poison control center or doctor. Take small sips of water if able to swallow. Do not give anything to by mouth to an unconscious person.

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	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. Full suit. Boots. Gloves.

Section 7. Handling and Storage

Precautions	Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing. 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. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection

Eyes Safety glasses.

Body Long Sleeves and pants to avoid skin contact.

Respiratory A respirator is not needed under normal and intended conditions of product use. Wear appropriate respirator when ventilation is inadequate.

Hands 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	Not available.		
VOC	19.172 (g/l).		
Evaporation Rate	Not available.		
Dispersion Properties	See solubility in water, methanol, acetone.		
Solubility	Easily soluble in methanol, acetone. Partially soluble in cold water, hot water.		
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 available.		

Explosion Hazards in Presence of Various Substances	Not available.
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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 available.

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> Not available. <i>Skin</i> Irritation of the product in case of skin contact: Not available. Sensitization of the product: Not available. Slightly hazardous in case of skin contact (permeator). <i>Inhalation</i> Not available. <i>Ingestion</i> Hazardous in case of ingestion.
Chronic Effects on Humans	Over-exposure by inhalation may cause respiratory irritation. May aggravate existing respiratory conditions. *Repeated or prolonged exposure to the substance can produce blood disorders. *Repeated or prolonged exposure to the substance can produce kidney damage. *Repeated or prolonged exposure to the substance can produce nervous system damage. *Information is based on animal data, relevance to humans has yet to be determined.
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 TDG Class 3: Flammable liquid.



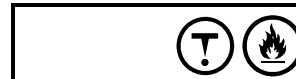
PIN UN, Proper Shipping Name, PG 1993 Flammable liquid, n.o.s. PG:III(Applicable when transported by ground in North America in equal to or in excess of 119 gallons) When shipped by Ground in North America in quantities less than 119 gallons, this product is not regulated under the DOT HMR.

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: Corrosive liquid.

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: Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard; Citrus Terpenes: Fire hazard, Immediate (Acute) Health Hazard

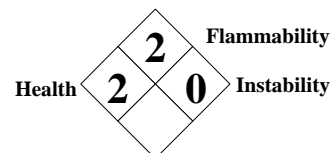
DSD (EEC) Harmful if swallowed. Harmful in contact with skin.

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.

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.

Validated on 3/2/2007.

PK Cleaner

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