





Material Safety Data Sheet

This MSDS is prepared in accordance with OSHA 29 CFR 1910.1200

 WHMIS (Pictograms)	WHMIS CLASS B-5: Flammable aerosol. WHMIS (Classification)	HCS CLASS: Flammable liquid having a flash point lower than 37.8°C (100°F). HCS
--	---	--

Section 1. Chemical Product and Company Identification

Product Name/ Trade name Brake Parts Cleaner	Code 033
Synonym Brake Parts Cleaner	CAS # Not applicable.
Chemical Family Not available.	Validation Date 5/8/2003
Chemical Formula Not applicable.	Print Date 3/27/2004
Manufacturer/ Supplier Betco Corporation 1001 Brown Avenue Toledo, Ohio 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
1) Petroleum Distillates	64742-48-9	0-100	TWA: 500 (ppm) TWA: 100 (ppm) from OSHA (PEL)	Not available.
2) Liquified Petroleum Gas	68476-85-7	10-20	TWA: 1000 (ppm) TWA: 1000 (ppm) from OSHA (PEL)	Not available.
3) Citrus Terpenes	5989-27-5	10-15	Not available.	Not available.
4) Low Odor Base Solvent	68742-88-7	0-5	TWA: 100 (ppm) TWA: 400 (ppm) from OSHA (PEL)	Not available.

Section 3. Hazards Identification

Potential Acute Health Effects	Irritating to the mucous membranes of the nose, throat and lungs. Skin and eye irritant.
Potential Chronic Health Effects	Repeated skin exposure can produce local skin destruction, or dermatitis. Severe over-exposure through inhalation can result in death.
Carcinogenic Effects	Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

Section 4. First Aid Measures

Eye Contact	This product is a severe eye irritant. Flush eyes with large quantities of water. Seek medical attention.
Skin Contact	Causes skin irritation. Repeated skin exposure can produce local skin destruction, or dermatitis. Wash affected area with soap and water. Seek medical attention if irritation persists.
Inhalation	May cause headache, nausea or weakness in case of long term exposure. Get to fresh air. If breathing is difficult, give oxygen. Seek medical attention if symptoms persist.

Section 5. Fire Fighting Measures

Products of Combustion	Not available.
Fire Fighting Media and Instructions	Foam, CO ₂ , or dry chemical.
Special Remarks on Fire Hazards	N/A
Special Remarks on Explosion Hazards	Heated cans may burst.

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.
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	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 breathe gas, fumes, vapor or spray.
Incompatibility	Not available.
Storage	Flammable materials should be stored in a separate safety storage cabinet or room. 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 for most conditions. Local exhaust ventilation may be necessary for some operations.
----------------------	--

Personal Protection

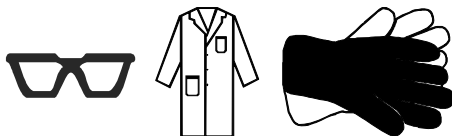
Eyes Safety glasses.

Body No special protective clothing is required.

Respiratory Wear appropriate respirator when ventilation is inadequate.

Hands Gloves (impervious).

Protective Clothing (Pictograms)



Exposure Limits

Petroleum Distillates

TWA: 500 (ppm)
TWA: 100 (ppm) from OSHA (PEL)

Liquified Petroleum Gas

TWA: 1000 (ppm)
TWA: 1000 (ppm) from OSHA (PEL)

Low Odor Base Solvent

TWA: 100 (ppm)
TWA: 400 (ppm) from OSHA (PEL)

Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Liquid.	Odor	Characteristic.
Molecular Weight	Not applicable.	Taste	Not available.
pH	Not available.	Color	Not available.
Boiling/Condensation Point	N/A		
Melting/Freezing Point	Not available.		
Critical Temperature	Not available.		
Instability Temperature	Not available.		
Specific Gravity	Not available.		
Vapor Pressure	50 psig @ 68°F		
Vapor Density	>1 (Air = 1)		
Volatility	100		
VOC	Not available.		
Evaporation Rate	>1		
Dispersion Properties	Not available.		
Solubility	Not available.		
The Product is:	May be combustible at high temperature.		
Auto-ignition Temperature	Not available.		
Flash Points	CLOSED CUP: 15.556°C (60°F).		
Flammable Limits	LOWER: 1% UPPER: 9.5%		
Fire Hazards in Presence of Various Substances	Flammable in presence of open flames and sparks, of heat.		
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not available. Highly explosive in presence of open flames and sparks, of heat.		

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Incompatibility with Various Substances	Not available.
Hazardous Decomposition Products	Will not occur.

Section 11. Toxicological Information

Routes of Entry	Not available.
Toxicity to Animals	LD50: Not available. LC50: Not available.
Acute Effects on Humans	<p><i>Eyes</i> Irritant. Inflammation of the eye is characterized by redness, watering, and itching.</p> <p><i>Skin</i> Irritant. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.</p> <p><i>Inhalation</i> Irritant.</p> <p><i>Ingestion</i> Harmful if swallowed. Aspiration hazard if swallowed- can enter lungs and cause chemical pneumonitis.</p>
Chronic Effects on Humans	Repeated skin exposure can produce local skin destruction, or dermatitis. Severe over-exposure through inhalation can result in death.
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 available.
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 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) WHMIS CLASS B-5: Flammable aerosol.



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: Flammable liquid having a flash point lower than 37.8°C (100°F).

USA Regulatory Lists

SARA 311/312 MSDS distribution - chemical inventory - hazard identification:
Petroleum Distillates: fire, immediate health hazard; Liquified Petroleum Gas: fire;
Citrus Terpenes: fire, immediate health hazard

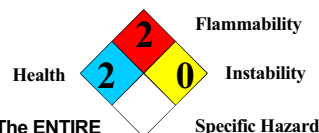
DSD (EEC) This product is not classified according to the EU regulations.

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 5/8/2003.

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.

Validated on 5/8/2003.

Brake Parts Cleaner

Page: 5/5

Continued on Next Page