

Material Safety Data Sheet

WHMIS 	Protective Clothing 	TDG Road / Rail
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Section 1. Product Identification and Uses

Product Name 76320 Brake Cleaner	CI# Not applicable.
Synonyms Not available.	DSL Not available.
Chemical Name Not applicable.	CAS # Not applicable.
Chemical Formula Chemical mixture.	Code 1515-10-002
Chemical Family Aliphatic/chlorinated hydrocarbons.	Molecular Weight Not applicable.
Supplier Osborn International 5401 Hamilton Avenue, Cleveland, Ohio, U.S.A. 44114 PHONE: (216) 361-1900	Manufacturer Manufactured for: Osborn International
Material Uses Safely cleans & degreases brake parts.	



Section 2. Hazardous Ingredients

Name	CAS #	% by Weight	LC ₅₀ /LD ₅₀
1) Perchloroethylene	127-18-4	30-60	ORAL (LD50) mg/kg: Acute: 2629 (Rat.). DERMAL (LD50) mg/kg: Acute: 10000 (Rabbit). VAPOR (LC50) ppm : Acute: 7219 (Rat.) (4 hour(s)).
2) Trichloroethylene	79-01-6	10-30	ORAL (LD50) mg/kg: Acute: 4920 (Rat). VAPOR (LC50) ppm : Acute: 7480 (Mouse) (4 hour(s)).
3) Petroleum distillate	64741-66-8	10-30	Not available.
4) Carbon dioxide	124-38-9	1-5	Not available.

Section 3. Physical Data

Physical State and Appearance	Liquid (Aerosol Concentrate).	Odor	Characteristic.
pH (1% Soln/Water)	Not applicable.	Taste	Not available.
Odor Threshold	50 ppm	Color	Clear
Volatility	Not available.		
Evaporation Rate	1.7 (Butyl acetate = 1.0)		
Melting Point	Not available.		
Boiling Point	250°F		
Density	1.255 @ 20°C (68°F) (Water = 1)		
Vapor Density	Greater than 1 (Air = 1)		
Vapor Pressure	13 mm of Hg @ 68°F		
LogK_{ow}	Not available.		
Ionicity (Surface Active Agent)	Not available.		
Critical Temperature	Not available.		
Instability Temperature	Not available.		
Conditions of Instability	Not available.		
Dispersion Properties	Is not dispersed in water.		
Solubility	Insoluble in water.		

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Section 4. Fire and Explosion Data

The Product is:	Non-flammable Aerosol.
Auto-ignition Temperature	Not applicable.
Products of Combustion	These products are carbon oxides (CO, CO ₂), hydrogen chloride, traces of phosgene and chlorine and other irritating gases.
Flash Points	Not applicable.
Flammable Limits	Not applicable.
Extinguishing Media	Cool containing vessels with water spray in order to prevent pressure build-up or explosion. Self-contained respiratory protection should be provided for firefighters.
Flammability	The flammability of an aerosol by WHMIS definition is determined by its flame-extension or its flashback. The flame-extension of this product is 0 cm. FIRE CODE: Level 1 Aerosol (as per NFPA 30B).
Risks of Explosion	Risk of explosion of the product in presence of mechanical impact: Do not subject aerosol cans to impact. Risk of explosion of the product in the presence of static discharge: Not available. Container may explode if heated.



Section 5. Reactivity

Stability	The product is stable.
Hazardous Decomposition Products	These products are carbon oxides (CO, CO ₂), hydrogen chloride, traces of phosgene and chlorine and other irritating gases.
Degradability	Not available.
Products of Degradation	Not available. Not available.
Corrosivity	No specific information is available in our data base regarding the corrosivity of this product in presence of various materials.
Reactivity	Avoid contact with strong oxidizing agents, strong reducing agents, strong alkalis and chemically reactive metals (sodium, potassium, barium, aluminum and their alloys). Keep away from excessive amounts of heat and open flame. Alcohols may interact synergistically with chlorinated solvents.
Instability Temperature	Not available.
Conditions of Instability	Not available.

Section 6. Toxicological Properties

Routes of Entry	Ingestion. Inhalation. Skin contact. Eye contact.
TLV	<p>Perchloroethylene TWA: 25 (ppm)</p> <p>Trichloroethylene TWA: 50 (ppm)</p> <p>Petroleum distillate TWA: 400 (ppm)</p> <p>Carbon dioxide</p>

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TWA: 5000 (ppm)

Consult local authorities for acceptable exposure limits.



Toxicity to Animals	<p>WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE.</p> <p>Acute oral toxicity (LD50): 2629 mg/kg (Rat) (Perchloroethylene). Acute oral toxicity (LD50): 4920 mg/kg (Rat) (Trichloroethylene). Acute oral toxicity (LD50): 800 mg/kg [Rat]. (Petroleum distillate). Acute dermal toxicity (LD50): > 5000 mg/kg (Rabbit.) (Perchloroethylene). Acute toxicity of the vapor (LC50): > 5000 ppm (Rat) (Perchloroethylene). Acute toxicity of the vapor (LC50): > 5000 ppm (Mouse) (Trichloroethylene). Acute toxicity of the vapor (LC50): 1400 ppm (Rat) (Petroleum distillate). Perchloroethylene is embryotoxic and/or fetotoxic in animals.</p>
Chronic Effects on Humans	<p>Prolonged or repeated skin contact may lead to dermatitis. Repeated or prolonged exposure to this product may cause kidney and liver damage.</p>
Acute Effects on Humans	<p>EYE CONTACT: May cause moderate to severe irritation, redness and tearing. This product is an eye irritant. SKIN CONTACT: May cause irritation, defatting, drying and cracking of skin. INHALATION: Vapours are irritating to the nose, throat and respiratory tract. Excessive inhalation may cause difficult breathing, heart irregularities, liver damage, kidney damage and Central Nervous System effects including dizziness, weakness, fatigue, nausea, vomiting, headache and possible unconsciousness. INGESTION: This product causes irritation, a burning sensation of the mouth and throat and abdominal pain. May cause kidney damage, liver damage, cardiac arrhythmia, nausea, vomiting, diarrhea and Central Nervous System effects (see inhalation). Aspiration of material into the lungs may cause chemical pneumonitis, which can be fatal. Can be fatal if inhaled or ingested. This product may irritate eyes and skin upon contact.</p>
Synergetic Products (Toxicologically)	Not available.
Irritation/Corrosivity	See acute effects on humans.
Sensitization	This product may sensitize heart muscle causing cardiac arrhythmia, in rare cases.
Carcinogenic Effects	Perchloroethylene is classified as a suspected carcinogen by NTP (National Toxicology Program) and IARC (International Agency for Research on Cancer). Trichloroethylene is classified as a suspected carcinogen by the American Conference of Governmental Industrial Hygienists (ACGIH).
Toxic Effects on Reproduction	Not available.
Teratogenic Effects	Not available.
Mutagenic Effects	Not available.

Section 7. Preventive Measures

Small Spill and Leak	Provide adequate ventilation. Absorb with an inert material and put the spilled material in an appropriate waste disposal container. It is recommended that safety glasses and chemical resistant gloves be worn to clean up spills.
Personal Protective Equipment	<p>Safety glasses and chemical resistant gloves. Be sure to use a MSHA/NIOSH approved respirator or equivalent when ventilation is inadequate.</p>
Large Spill and Leak	Not applicable for aerosol containers.
Protective Clothing	Not applicable for aerosol containers.
Engineering Controls	Use under well-ventilated conditions.
Precautions	Contents under pressure. Container may explode if heated. Vapour harmful. Harmful if inhaled or swallowed. Keep out of reach of children.
Storage	Store in a cool, dry place. Do not place in hot water or near radiator, stove or other sources of heat. Do not puncture or incinerate container or store at temperatures over 50°C or in direct sunlight.



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Handling	Avoid breathing vapours or spray mists. Avoid contact with skin and eyes. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. After handling, always wash hands thoroughly with soap and water.
Waste Disposal	Recycle to process, if possible. Consult your local or regional authorities. When container is empty, press button to release all pressure, then dispose of in garbage can.
Special Shipping Information	None.

Section 8. First Aid

Eye Contact	IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. If irritation persists, repeat flushing. Get medical attention.
Skin Contact	Wash thoroughly with soap and water. If irritation persists, get medical attention. Remove contaminated clothing and wash before reuse.
Hazardous Skin Contact	No additional information.
Slight Inhalation	Remove affected person to fresh air. Oxygen may be administered if breathing is difficult. If the victim is not breathing, perform mouth-to-mouth resuscitation. Get medical attention.
Hazardous Inhalation	No additional information.
Slight Ingestion	If swallowed, call physician or poison control centre immediately. DO NOT induce vomiting. Rinse mouth with water. Aspiration of material into lungs due to vomiting may cause chemical pneumonitis which can be fatal.
Hazardous Ingestion	No additional information.

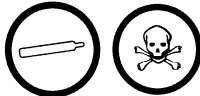
Section 9. MSDS Preparation

References	Not available.
No additional remark.	
Validated by Regulatory Affairs Dept. on 11/22/2001.	Verified by Regulatory Affairs Dept..
	Printed 11/22/2001.



Emergency Phone: (905) 677-1948

Responsible Name/ Telephone No.

Classification

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	Not applicable.	
WHMIS	WHMIS CLASS A: Compressed gas. WHMIS CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC). WHMIS CLASS D-2A: Material causing other toxic effects (VERY TOXIC). WHMIS CLASS D-2B: Material causing other toxic effects (TOXIC).	

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