



MATERIAL SAFETY DATA SHEET

This Material Safety Data Sheet complies with the Canadian Controlled Products Act

****NOTE: THE FOLLOWING INFORMATION PROVIDED IS FOR THE PRODUCT CONCENTRATE ONLY, NOT FOR USE-DILUTIONS****

SECTION 1 – PRODUCT IDENTIFICATION					
PRODUCT IDENTIFIER:	CITRIO				
PRODUCT USE:	Citrus based Cleaner and Degreaser				
SUPPLIER:	Velocity Chemicals Ltd. Unit #1, 9515- 190 th St., Surrey, B.C. V4N-3S1 Emergency Telephone: (604) 881-4700 Facsimile: (604) 881-4701			In case of transportation emergency or product spill, contact: In Canada- CANUTEC @ 613-996-6666 (24 hrs.)	
SECTION 2 – HAZARDOUS INGREDIENTS					
HAZARDOUS INGREDIENTS	% (W/W)	CAS NUMBER	LD50	LC50	EXPOSURE LIMITS
D-Limonene	30-60	5989-27-5	> 5 g/kg (oral/dermal, rabbit)	Not available	Not established
Ethylene Glycol Monobutyl Ether	5-10	111-76-2	470mg/kg (oral, rat), 220mg/kg (skin, rabbit)	450ppm (inhal., 4hrs, rat)	OSHA(PEL)= 50ppm, skin ACGIH(TWA)= 20ppm, skin IDLH= 700ppm
Ethanolamine	5-10	141-43-5	1.72 g/kg (oral, rat), 1.0 g/kg (skin, rabbit)	Not available	OSHA(PEL) & ACGIH(TLV)= 3ppm(TWA) ACGIH(TLV)= 6 ppm(STEL)
Ethoxylated Alcohol	5-10	68131-39-5	500-5000mg/kg (oral, rat)	Not available	Not established
SECTION 3 – PHYSICAL DATA					

<p>Physical state: liquid</p> <p>Solubility: soluble</p> <p>Odour and Appearance: clear to hazy liquid with a citrus odor</p> <p>pH (100%) @ 20°C: 11.0-12.0</p> <p>Specific Gravity @ 20°C: 0.93</p> <p>Odour Threshold (ppm): not established</p>	<p>Vapour Density: not determined</p> <p>Vapour Pressure: not determined</p> <p>Evaporation Rate: not determined</p> <p>Boiling Point (°C): not determined</p> <p>Freezing Point (°C): not determined</p> <p>Coefficient of water/oil distribution: not determined</p>
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SECTION 4 – FIRE AND EXPLOSION DATA

<p>Flammability: Yes, combustible under WHMIS B3</p> <p>If yes, under what condition: heat, open flames, sparks and other ignition sources</p> <p>Means of Extinction: Dry chemical, alcohol foam, CO₂, water spray. Use extinguishing media suitable for surrounding fires.</p> <p>Special Fire Fighting Procedures: Wear NIOSH/OSHA approved, self contained breathing apparatus for fire fighting situations. Use water spray to cool all nearby fire exposed surfaces.</p> <p>Explosion Data-</p> <p>Sensitivity to impact: None</p> <p>Sensitivity to static discharge: None</p>	<p>Flash Point (°C) and method: 52.5°C (PMCC)</p> <p>Upper Flammable limit (% volume): not applicable</p> <p>Lower Flammable limit (% volume): not applicable</p> <p>Autoignition temperature (°C): not applicable</p> <p>Hazardous combustion products: carbon and nitrogen oxides, and other toxic organic vapours.</p>
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SECTION 5 – REACTIVITY DATA

<p>Chemical Stability: yes, stable under normal storage conditions</p> <p>If no, under what conditions:</p> <p>Incompatibility with other substances: yes</p> <p>If so, under what conditions: strong alkalis, acids and oxidizers</p> <p>Reactivity, and under what conditions: none known</p> <p>Hazardous Decomposition Products: may form carbon and nitrogen oxides upon thermal decomposition.</p>
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SECTION 6 – TOXICOLOGICAL PROPERTIES

Primary route of entry: skin and eye contact, skin absorption, inhalation

Effects of Acute Exposure to Product: Product exposure can cause irritation or burns to skin and eyes. Inhaling mist or vapors can cause immediate irritation, burns or discomfort to respiratory system, headaches, nausea, etc. Also, may be harmful if absorbed through skin.

Effects of Chronic Exposure to Product: Prolonged exposure may cause skin dermatitis and respiratory disorder. May also cause blood, kidney and liver disorders through repeated exposure of Ethylene glycol Monobutyl ether (based on animal test data).

Exposure Limits: see Section 2 under Hazardous Ingredients

Irritancy of Product: corrosive to skin, eyes and respiratory system.

Sensitization: D-limonene may cause skin sensitization in some individuals.

Reproductive Toxicity: none known

Mutagenicity: none known

Carcinogenicity: glycol ether monobutyl ether is classified as Group 3 (Unclassifiable as to carcinogenicity in humans) under IARC and A3 (confirmed animal carcinogen with unknown relevance to humans) under ACGIH.

Teratogenicity: none known

Synergistic Products: none known

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SECTION 7 – PREVENTATIVE MEASURES

Respiratory Protection: Use a NIOSH/OSHA approved for alkaline mist/dust and organic vapor respirator if mists or vapors are present.

Gloves: nitrile, neoprene or viton

Eye Protection: splash proof chemical goggles or face shield.

Footwear: boots

Clothing: long sleeve coveralls

Other: neoprene apron

Engineering Controls: General ventilation for normal operating conditions or local exhaust for confined areas.

Leak and Spill Procedures: Wear protective equipment. Extinguish all nearby ignition sources. Contain spill. Prevent runoff to drains or sewers. Recover material by vacuum or pump into a suitable flammable waste container. Soak up residue with suitable absorbent, and then dispose of into a flammable waste container. Reuse material if possible, or otherwise dispose in accordance with local regulations.

Waste Disposal: Dispose of in accordance with local environmental regulations.

Handling Procedures and Equipment: Use good hygiene practices. Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists. Use with adequate ventilation. Use proper grounding procedures when handling. Empty container may contain flammable residues/vapors. Do not cut, puncture, or weld near empty container. Safety shower and eye wash station should be available in the immediate work area.

Storage Requirements: Store in a cool, dry place away from all nearby ignition sources and incompatibles. Do not mix with any other chemicals. Keep container closed when not in use. Keep from freezing and temperatures below 30°C.

Special Shipping Information:

WHMIS Classification: B3, D2B, E

TDG Classification:

Flammable Liquid, Corrosive, N.O.S. (D-Limonene & Ethanolamine Mixture), Class 3(8), UN 2924, P.G. III

SECTION 8 – FIRST AID MEASURES

Inhalation: Remove victim to fresh air, apply artificial respiration if necessary. Seek medical help.
Ingestion: Give large amounts of water if conscious. Do not induce vomiting. Get medical help immediately.
Skin Contact: Wash thoroughly with water for 15 minutes. If irritation persists, seek medical attention.
Eye Contact: Flush immediately with water for 15-20 minutes. Seek medical help.

SECTION 9 - OTHER INFORMATION

REVISIONS: October 15, 2010

SUPERCEDES: December 14, 2007

PREPARED BY: Technical Department (Customer Service phone number: 604-881-4700)

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