

**empack**

Empack Spraytech Inc.  
98 Walker Drive  
Brampton, Ontario, L6T 4H6  
Canada  
905-792-6571

**PRODUCT: Certified non-chlorinated Brake Cleaner (CTC#038-1430)****CODE: CT-251430****SECTION 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Product Item Numbers..... CT-251430  
 Product Identity..... Certified non-chlorinated Brake Cleaner (CTC#038-1430)  
 Manufacturer..... Empack Spraytech Inc.  
 98 Walker Drive  
 Brampton  
 Ontario  
 Canada  
 L6T 4H6  
 905-792-6571  
 24 hour emergency telephone number..... CHEM TREC: 800-424-9300.  
 Recommended Use..... Dissolves and removes grease, oil and dirt from brake parts and C.V. joints .

**SECTION 02: HAZARDS IDENTIFICATION**

Hazard Classification:  
 Physical Hazards..... Flammable Aerosols - Category 1. Gases Under Pressure - Compressed gas.  
 Health Hazards..... Eye Damage/Irritation - Category 2B. Skin Irritation - Category 2. Specific Target Organ Toxicity, Single Exposure - Category 3. Aspiration Hazard - Category 1.  
 Environmental Hazards..... Acute Aquatic Hazard - Category 1. Chronic Aquatic Hazard - Category 1.  
 Label Elements:  
 Signal Word..... DANGER.  
 Hazard Statement..... Extremely flammable aerosol. Pressurized container: may burst if heated. Causes eye irritation. Causes skin irritation. May be fatal if swallowed and enters airways. May cause drowsiness or dizziness. Very toxic to aquatic life with long lasting effects. Causes damage to organs.  
 Precautionary Statements:  
 Prevention..... Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not breathe dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wash hands thoroughly after handling. Wear protective gloves.  
 Response..... IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of water. Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF exposed or concerned: Call a POISON CENTER/doctor. Collect spillage.  
 Storage..... Keep container tightly closed. Protect from sunlight. Do not expose to temperatures exceeding 50°C /122°F. Store in a well-ventilated place. Store locked up.  
 Disposal..... Dispose of contents/ container in accordance with local/regional/national/international regulations.  
 Hazard(s) not otherwise classified (HNOC).. None Known.

**SECTION 03: COMPOSITION/INFORMATION ON INGREDIENTS**

HAZARDOUS INGREDIENTS	CAS #	WT. %
Heptane	142-82-5	60-100
Isopropyl Alcohol	67-63-0	5 - 10
Carbon Dioxide	124-38-9	1-5

**PRODUCT: Certified non-chlorinated Brake Cleaner (CTC#038-1430)****CODE: CT-251430****SECTION 04: FIRST AID MEASURES**

Inhalation.....	If inhaled, remove to fresh air. If not breathing, give artificial respiration and obtain immediate medical assistance. If breathing is difficult, give oxygen and get medical attention. Do not give adrenaline, epinephrine or similar drugs following exposure to this product.
Skin Contact.....	Wash thoroughly with soap and lukewarm water.
Eye Contact.....	Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if irritation persists.
Ingestion.....	Do not induce vomiting, get medical attention. Consult poison control center or physician IMMEDIATELY.
Most important symptoms/effects, acute and delayed	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Direct contact with eyes may cause temporary irritation. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. In case of shortness of breath give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

**SECTION 05: FIRE FIGHTING MEASURES**

Suitable Extinguishing Media.....	Dry chemical powder. Carbon dioxide. Foam, water spray or fog.
Unsuitable Extinguishing Media.....	Do not use water jet as an extinguisher, as this will spread the fire.
Specific Hazards Arising from the Chemical.	Contents under pressure. Pressurized container may explode when exposed to heat or flame.
Special Protective Equipment and ..... Precautions for Firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
General Fire Hazards.....	Extremely flammable aerosol.

**SECTION 06: ACCIDENTAL RELEASE MEASURES**

Personal Precautions, Protective Equipment and Emergency Procedures	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Avoid walking through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 08).
Methods and Materials for Containment and Cleaning Up	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see section 13). Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material.
Environmental Precautions.....	Keep out of drains, sewers, ditches, and waterways. Minimize use of water to prevent environmental contamination.

**SECTION 07: HANDLING AND STORAGE**

Precautions for Safe Handling.....	Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Avoid contact with eyes, skin, and clothing. Avoid breathing vapour of this product. Avoid contact with skin and eyes. Avoid prolonged exposure. Use in well-ventilated areas.
Conditions for Safe Storage including any ... Incompatibilities	Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C (122°F). Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Store away from incompatible materials (see Section 10).

**SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION**

INGREDIENTS	TWA	ACGIH TLV STEL	PEL	OSHA PEL STEL	REL NIOSH
Heptane	400 ppm	500 ppm	500 ppm	Not available	85 ppm for n-Heptane, 440 ppm for a ceiling conc.
Isopropyl Alcohol	400 ppm (983 mg/m3)	500 ppm (1230 mg/m3)	400 ppm (980 mg/m3)	500 ppm (1,225 mg/m3)	400 ppm (TWA)
Carbon Dioxide	5000 ppm	30000 ppm	9000 mg/m3	Not available	STEL: 30000ppm; TWA: 5000ppm

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Appropriate Engineering Controls.....	Local exhaust ventilation required to maintain the point of use below the Threshold Limit Value if unprotected personnel are involved.
Individual Protection Measures:	
Eye/Face Protection.....	Do not get in eyes. Wear safety glasses with side-shields.
Skin Protection.....	Chemical resistant gloves are recommended. Avoid contact with the skin. Wear appropriate chemical resistant clothing.
Respiratory Protection.....	Use dust and mist respirator.
Thermal Hazards.....	None Known.
General Hygiene Considerations.....	When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment prior to use.

**SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES**

Form.....	Aerosol.
Physical Appearance.....	Clear mist.
Odor.....	Hydrocarbons.
Odor Threshold (ppm).....	N/A.
Specific Gravity .....	0.695.
Aerosol Vapour Pressure (psig, 21°C).....	80-100.
Vapour Density (Air=1).....	> 1.
pH.....	N/A.
Boiling Point liquid (°C).....	82°C (179.6°F). (Isopropyl Alcohol).
Melting/Freezing Point (°C).....	N/A.
Flash Point (°C), Method.....	-4°C (25°F). Tag Closed Cup. (Heptane).
Flashback.....	Yes.
Evaporation Rate (n-Butyl Acetate = 1).....	N/A.
VOC Content.....	95-100 %wt.
Solubility in water.....	Nil.
Aerosol Flame Projection.....	>45cm and <100cm.
Auto Ignition Temperature (°C).....	223. (Heptane).
Lower Flammable Limit (% Vol).....	1.0. (Heptane).
Upper Flammable Limit (% Vol).....	7.0. (Heptane).
Coefficient of Water/Oil Distribution.....	N/A.
Viscosity.....	N/A.

**SECTION 10: STABILITY AND REACTIVITY**

Reactivity .....	Product not reactive under normal conditions of use.
Chemical Stability.....	Material is stable under normal conditions.
Possibility of Hazardous Reactions.....	Will not occur.
Conditions to Avoid.....	Avoid sources of heat and flame, and electrostatic charge.
Incompatible Materials.....	Strong oxidizing agents. Strong acids.
Hazardous Decomposition Products.....	Carbon Oxides.

**SECTION 11: TOXICOLOGICAL INFORMATION**

INGREDIENTS	LC50	LD50
Heptane	103,000 mg/L (Rat,4hr)	>15,000 mg/kg (rat - oral); >2,000 mg/kg (Dermal,Rabbit)
Isopropyl Alcohol	>20,000 ppm (Rat,4hrs)	4,700 - 5,800 mg/kg (oral,rat)
Carbon Dioxide	Not available	Not available
Information on Likely Routes of Exposure:		
Routes of entry - Inhalation.....	Yes.	
Routes of entry - Skin & Eye.....	Yes.	
Routes of entry - Ingestion.....	Yes.	
Routes of entry - Skin Absorption.....	Yes.	
Symptoms Related to the Physical, Chemical and Toxicological Characteristics	Irritant effects. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Defatting of the skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.	
Acute Toxicity.....	Toxic if inhaled.	
Skin Corrosion/Irritation.....	Causes skin irritation.	
Serious Eye Damage/Eye Irritation.....	Causes eye irritation.	
Respiratory or Skin Sensitization.....	Inhalation may cause respiratory tract irritation.	
Germ Cell Mutagenicity.....	No information is available.	
Carcinogenicity.....	None known.	
Reproductive Toxicity.....	No information is available.	

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STOT - Single Exposure..... Specific target organ toxicity single exposure Category 3. May cause drowsiness and dizziness.

STOT - Repeated Exposure..... May cause damage to the liver and kidneys through prolonged or repeated exposure.

Aspiration Hazard..... Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.

Chronic Effects..... Organic solvents may be absorbed into the body by inhalation and ingestion and cause permanent damage to the nervous system, including the brain. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

**SECTION 12: ECOLOGICAL INFORMATION**

Ecotoxicity..... Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Heptane (CAS#:142-82-5): Toxicity to fish: LC50 1.284 mg/L, 96 hrs; Toxicity to other aquatic invertebrates: 0.1 mg/L, 96 hrs; Toxicity to algae: EL50 4.338 mg/L, 72 hrs.

Persistence and degradability ..... The product itself has not been tested.

Bioaccumulation Potential..... The product itself has not been tested.

Mobility in Soil..... The product itself has not been tested.

Other Adverse Effects..... None Known.

**SECTION 13: DISPOSAL CONSIDERATIONS**

Appropriate Disposal Methods..... Dispose in accordance with local, provincial and federal regulations.

**SECTION 14: TRANSPORT INFORMATION**

TDG (Canada- Road)..... AEROSOLS, Class 2.1, UN1950.

DOT (US-Road)..... AEROSOLS, Class 2.1, UN1950, LTD QTY, Consumer commodity ORM-D.

IMDG (International- Marine)..... AEROSOLS, Class 2.1, UN1950.

IATA (International- Air)..... AEROSOLS, Class 2.1, UN1950, LTD QTY.

**SECTION 15: REGULATORY INFORMATION**

Canada Regulations:..... WHMIS Classification. A: Compressed gas. B5: Flammable Aerosol. D2B: Material causing other toxic Materials.

Domestic Substances List (DSL)..... Yes.

US Regulations..... Environmental Protection Act: Constituents of this product are included on the TSCA inventory. This product is considered hazardous under the OSHA Hazard Communication Standard.

**SECTION 16: OTHER INFORMATION**

Disclaimer..... The information contained herein is based on data considered accurate. No guarantee or warranty is expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. The SDS provider assumes no responsibility for personal injury or property damage to vendors or users or third parties, caused by the material. Such vendors or users assume all risks with the use of the material. This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all the information required by the CPR.

Abbreviations..... ACGIH: American Conference of Governmental Industrial Hygienists; CAS: Chemical Abstract Service; NIOSH: National Institute for Occupational Safety and Health, OSHA: Occupational Safety and Health Administration- USA; TSCA: Toxic Substances Control Act 1976-USA; PEL: Permissible Exposure Limit; REL: Recommended Exposure Limit; TLV: Threshold Limit Value; VOC: Volatile Organic Content; WHMIS: Workplace Hazardous Materials Information System STOT: Specific Target Organ Toxicity.

Prepared by ..... Regulatory Affairs

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