



FMSI Automotive Hardware  
1070 Heritage Road  
Burlington, ON, L7L 4X9  
Canada  
+1 800-651-7445

**PRODUCT: FMSI Brake Cleaner - 390 g**

**CODE: FM-000720**

### SECTION 01: IDENTIFICATION

Product Item Numbers..... FM-000720  
 Product Identity..... FMSI Brake Cleaner - 390 g  
 Manufacturer..... FMSI Automotive Hardware  
 1070 Heritage Road  
 Burlington  
 Ontario  
 Canada  
 L7L 4X9  
 1.800.651.7445  
 24 hour emergency telephone number..... In Canada: Call CANUTEC (613) 996-6666 - In The United States: Call CHEMTREC (800) 424-9300.  
 Recommended Use..... Solvent degreaser.  
 Chemical Family..... Petroleum Distillates.

### SECTION 02: HAZARD IDENTIFICATION



Label Elements:  
 Signal Word..... DANGER.  
 Hazard Classification:  
 Physical Hazards..... Flammable Aerosols - Category 1. Gases Under Pressure - Compressed gas.  
 Health Hazards..... Aspiration Hazard - Category 1. Skin Irritation - Category 2. Specific Target Organ Toxicity, Single Exposure - Category 3.  
 Environmental Hazards..... Not Classified.  
 Hazard Statement..... H222:Extremely flammable aerosol (1). H229:Pressurized container: may burst if heated (1). H280:Contains gas under pressure; may explode if heated (C). H315:Causes skin irritation. H336:May cause drowsiness or dizziness. H304:May be fatal if swallowed and enters airways.  
 Precautionary Statements:  
 Prevention..... P210:Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211:Do not spray on an open flame or other ignition source. P251:Do not pierce or burn, even after use. P264:Wash hand thoroughly after handling. P280:Wear protective gloves. P261:Avoid breathing dust/fume/gas/mist/vapours/spray. P271:Use only outdoors or in a well-ventilated area.  
 Response..... P301+P310:IF SWALLOWED: Immediately call a POISON CENTER/doctor. P331:Do NOT induce vomiting. P302+P352:IF ON SKIN: Wash with plenty of water. P332+P313:If skin irritation occurs: Get medical help. P362+P364:Take off contaminated clothing and wash it before reuse. P321:For specific treatment see section 4 on this SDS.  
 Storage..... P304+P340:IF INHALED: Remove person to fresh air and keep comfortable for breathing. P312:Call a POISON CENTER if you feel unwell.  
 Disposal..... P410+P412:Protect from sunlight. Do not expose to temperatures exceeding 50°C /122°F. P403+P233:Store in a well-ventilated place. Keep container tightly closed. P405: Store locked up.  
 Hazard(s) not otherwise classified (HNOC) None Known.  
 Classified according to:..... Canada's Hazardous Products Act/Hazardous Products Regulations (WHMIS 2015) and Occupational Safety and Health Administration (OSHA).

### SECTION 03: COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL NAME AND SYNONYMS	CAS #	WT. %
Heptane (including isomers)	64742-49-0	80-100
Carbon dioxide	124-38-9	1-5

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**SECTION 04: FIRST-AID MEASURES**

Inhalation.....	If inhaled, remove to fresh air. If not breathing, give artificial respiration and obtain immediate medical assistance.
Skin Contact.....	Remove contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Consult a poison control centre or physician immediately.
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.....	If swallowed do not induce vomiting because of risk of aspiration into the lungs. If aspiration is suspected obtain immediate medical attention. Do not attempt to give anything by mouth to an unconscious person. If victim is alert and not convulsing, rinse mouth out and give 1/2 to 1 glass of water to dilute material. DO NOT induce vomiting. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomitus, rinse mouth and administer more water. Obtain medical attention 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 (including isomers)	1,600 mg/m3 (RCP-TWA)	Not available	Not available	Not available	Not available	Not available
Carbon dioxide	5000 ppm	30000 ppm	9000 mg/m3	Not available	STEL: 30000ppm; TWA: 5000ppm	

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

Appropriate Engineering Controls.....	Local exhaust ventilation required to maintain the point of use below the Threshold Limit Value if unprotected personnel are involved. Ensure that eyewash stations and safety showers are available.
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 liquid.
Odor.....	Heptane.
Odor Threshold (ppm).....	N/A.
Specific Gravity (Liquid).....	0.680-0.700.
Specific Gravity (Aerosol).....	0.720-0.750.
Aerosol Vapour Pressure (psig, 21°C).....	80-100.
Vapour Density (Air=1).....	>1.
pH.....	Not applicable.
Boiling Point liquid (°C).....	94-98. (Heptanes).
Melting/Freezing Point (°C).....	N/A.
Flash point, Liquid (°C), Method.....	-8. [ASTM D-56].
Flashback.....	Yes.
Evaporation Rate (n-Butyl Acetate = 1).....	> 1 (n-Butyl Acetate = 1).
VOC Content.....	96 wt.% (669 g/L - 5.59 lb/gal).
Solubility in water.....	Immiscible.
Aerosol Flame Projection.....	> 45 cm but < 100 cm.
Auto Ignition Temperature (liquid), °C.....	245.
Lower Flammable Limit (% Vol).....	1.1. (Heptane).
Upper Flammable Limit (% Vol).....	6.7. (Heptane).
Coefficient of Water/Oil Distribution.....	N/A.
Viscosity.....	0.49 cSt (0.49 mm <sup>2</sup> /sec) at 40 °C. (Heptane).

**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 (including isomers)	>23.3 mg/L (Rat - 4 hrs)	>5,840 mg/kg (Oral - Rat); >2,920 mg/kg (Dermal - 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.....	No.	
Symptoms Related to the Physical, .....	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.	
Chemical and Toxicological Characteristics		
Acute Toxicity.....	Harmful or fatal if swallowed.	
Skin Corrosion/Irritation.....	Causes skin irritation.	
Serious Eye Damage/Eye Irritation.....	Direct eye contact may cause slight redness. Spraying directly into the eyes may cause frostbite, damage to the cornea resulting in permanent eye injury.	
Respiratory or Skin Sensitization.....	May cause sensitization by skin contact.	
Germ Cell Mutagenicity.....	No information is available, and no adverse effects are expected.	
Carcinogenicity.....	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	

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**SECTION 11: TOXICOLOGICAL INFORMATION**

Reproductive Toxicity.....	Contains no ingredient listed as toxic to reproduction.
STOT - Single Exposure.....	Specific target organ toxicity single exposure Category 3. May cause drowsiness and dizziness.
STOT - Repeated Exposure.....	No data available .
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.....	Harmful to aquatic life. Should not be released into the environment. This product contains the following ingredients: . Heptanes including isomers (CAS#: 64742-49-0): Toxicity to fish: LL50 > 13.4 mg/L, 96 hrs; Toxicity to other aquatic invertebrates: EL50 3 mg/L, 48 hrs; Toxicity to algae: EL50 10-30 mg/L, 72 hrs. Chronic Toxicity Daphnia magna: NOEC 0.17 mg/L 21 days.
Persistence and degradability .....	The product itself has not been tested.
Bioaccumulation Potential.....	Heptane: Readily Biodegradability:28 days (media - water).
Mobility in Soil.....	The product itself has not been tested.
Other Adverse Effects.....	None Known.

**SECTION 13: DISPOSAL CONSIDERATIONS**

Appropriate Disposal Methods.....	This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Spilled material and water rinses are classified as chemical waste and must be disposed of in accordance with current local, provincial and federal regulations. Contents under pressure. Do not puncture, incinerate or expose to heat, even when empty.
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**SECTION 14: TRANSPORT INFORMATION**

TDG (Canada- Road).....	UN1950, AEROSOLS, Class 2.1, Ltd. Qty.
DOT (US-Road).....	UN1950, AEROSOLS, Class 2.1, Ltd. Qty., Consumer Commodity ORM-D.
IMDG (International- Marine).....	UN1950, AEROSOLS, Class 2.1, Ltd. Qty.
IATA (International- Air).....	UN1950, AEROSOLS, Class 2.1, Ltd. Qty.

**SECTION 15: REGULATORY INFORMATION**

Canada Regulations:.....	Refer to Section 2 for a WHMIS 2015 Classification for this product.
Canadian Environmental Protection Act ... (CEPA)	All ingredients listed appear on the Domestic Substances List (DSL).
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.
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