Material Safety Data Sheet MV-5 Fuel System Cleaner

Emergency Telephone #: CHEMTREC (24 hours) 1-800-424-9300 (US only) or (703) 527-3887 outside US

1. Chemical Product and Company Identification

Product Name: MotorVac MV-5
Description: Gasoline Engine Fuel System Cleaner, Part # 400-0050
Company Identification: **MotorVac Inc.**
1324 Blundell Road
Mississauga, Ontario, Canada
L4Y 1M5
(905) 615-8620 (for inquiries only)
Issue Date: January 12, 2012

2. Composition/Information on Ingredients

Chemical Name	CAS Number	%W
Light Petroleum Distillates	(mixture)	40-60
Light Aromatic Naphtha	64742-95-6	<15
Oleic Acid	112-80-1	< 10
Methyl Isobutyl Carbinol	108-11-2	<10
Ethylene glycol monobutyl ether	111-76-2	<10
1, 2, 4-Trimethylbenzene	95-63-6	1-5
Ammonia Solution	1336-21-6	1-5
Propane	74-98-6	<10

3. Hazards Identification

WHMIS Classification: **A, Compressed Gas**
B5, Flammable Aerosol
D2B, Toxic Material

HIMS Rating - **Health:** **2**
Flammability: **4**
Reactivity: **1**
PPE: **B**

Emergency Overview: Extremely flammable aerosol. Harmful if swallowed. May cause lung damage if swallowed. Causes skin and eye irritation. High concentration of vapour may cause nausea, dizziness, headaches and drowsiness. Contents under pressure. Primary entry route(s): Inhalation, Ingestion, Eyes and Skin. Effects of short-term (acute) exposure: (for more details, refer to Section 11).

Potential Health Effects

Eye: Contact will cause irritation. Liquid may cause temporary pain if splashed in the eye(s). May cause redness, tearing and moderate irritation.

Skin: Prolonged or repeated contact will cause skin irritation. If trapped against the skin for a long period (probably more than 30 minutes), serious irritations, even burns and skin loss may occur.

Inhalation: Vapours may cause respiratory irritation. Breathing vapours at concentration above recommended exposure limits could cause headache, dizziness, nausea and drowsiness. Vapours may cause central nervous system (CNS) depression. Other CNS effects such as headache, lack of appetite, drowsiness, and in-coordination can occur. Very high concentrations may cause unconsciousness and pulmonary edema.

Ingestion: If swallowed, this material may irritate the respiratory tract. Due to its low viscosity, there is danger of aspiration into the lungs during swallowing and subsequent vomiting. Aspiration can result in severe lung damage. Product is moderately toxic if ingested. It may cause burning in the mouth, throat and chest as well as stomach irritation, nausea, and vomiting. Central nervous symptom depression, such as unconsciousness and coma, can occur. Inhalation of product into the lungs (aspiration) can occur while product is in the mouth, being swallowed or during vomiting. The aspiration of even a small amount of product into the lungs is very hazardous and may cause death. Aspirated product can cause chemical pneumonitis and/or pulmonary edema.

Medical Conditions Aggravated by Long-term Exposure: Repeated or prolonged contact can dry the skin and cause cracking, irritation and dermatitis.

4. First Aid Measures

Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Get medical attention if irritation develops or persists.

Skin Contact: Remove contaminated clothing and wash affected area immediately with large amounts of soap and water. Get medical attention if irritation develops or persists.

Inhalation: Remove source of contamination or move the exposed person to fresh air. If not breathing, trained personnel should give artificial respiration. Get medical attention.

Ingestion: Do Not induce vomiting. Contact a physician. Never give anything by mouth to an unconscious person. If swallowed, immediately give 2 glasses of water.

5. Fire Fighting Measures

COC Flash Point: 20C
6 ^{o}C (42.6 ^{o}F) (lowest component)
Autoignition Temperature: Not Available
Flammable Limits in Air: LEL (% by volume): Not Available
UEL (% by volume): Not Available
Extinguishing Media: Use dry chemical, carbon dioxide, foam or water fog. Water may be ineffective since it may not cool the material below its flash point
Fire & Explosion Hazards: Material probably not sensitive to mechanical impact. Vapour can be readily ignited by static charge.
Fire Fighting Instructions: Flammable liquid and vapour. This material releases vapours at or below ambient temperatures. When mixed with air in certain proportions and exposed to an ignition source, its vapour can cause a flash fire. Vapours are heavier than air and may travel long distances along the ground to an ignition source and flash back. Liquid can float on water and may travel to distant locations and/or spread fire. If container is not cooled, it can rupture in the heat of the fire. As in any fire, wear self-contained breathing apparatus pressure-demand MSHA/NIOSH (approved or

equivalent) and full protective gear. Avoid breathing smoke, fumes and decomposition products.

Hazardous Combustion Products: In the case of a fire, oxides of carbon, oxides of nitrogen, hydrocarbons, trace elements, fumes and smoke may be produced.

6. Accidental Release Measures

Safeguards (Personnel): Wear appropriate personal protective equipment. Eliminate all sources of ignition in the vicinity of the Spill. All equipment used when handling this material must be grounded. See Section 8.
Large Spills Procedure: Contain spilled material. Large spillage should be dammed-off. Prevent spilled product from entering stream or drinking water supply. Pick up free liquid if it can be safely done with explosion-proof equipment. Take up the remainder with absorbent material. Treat or dispose of waste material in accordance with all local, state/provincial and federal regulations.
Small Spills Procedure: Absorb spills with inert material. Avoid disposal into wastewater treatment facilities. Treat or dispose of waste material in accordance with all local, state/provincial and federal regulations.

7. Handling and Storage

Handling (Personnel): Do not get into eyes, on skin or clothing. Use only with adequate ventilation and personal protection. When sampling containers use appropriate personal protective equipment. When handling material use spark-proof tools and explosion-proof equipment.
Storage Requirements: Always keep containers tightly closed and do not handle or store near heat, sparks or any potential ignition sources. Store away from incompatible materials such as strong oxidizers. Protect containers from physical damage.

8. Exposure Controls/Personal Protection

Engineering Controls/Ventilation: Good general ventilation should be sufficient to control airborne levels. An emergency eye wash station and safety shower should be located near the workstation.
Eye/Face Protection Requirements: Wear splash-proof safety glasses.
Skin Protection: Wear protective gloves to minimize skin contamination. For brief contact, normal work attire should be sufficient. When prolonged or repeated contact could occur, use protective clothing impervious to this material.
Respiratory Protection Requirements: Under normal use conditions while handling small quantities, with adequate ventilation, no special handling equipment is required.

9. Physical and Chemical Properties:

Appearance……: Aerosol , Clear Amber
Odour……: Aromatic with ammonia
Water Solubility……: Partial
Boiling Point ……: Not Available
Vapour Density (Air =1)……: >1
Vapour Pressure……: Not Available
Specific Gravity ……: 0.8 – 0.85 @ 15^{o}C
Odour Threshold……: Not Available
pH……: Not Available

10. Stability and Reactivity

Chemical Stability: Stable under normal conditions of storage and use.

Conditions to Avoid: Avoid contact with strong oxidizers (e.g. peroxides, nitric acid and perchlorates). Avoid heat, sparks, static discharge, friction, open flames and other sources of ignition.

Hazardous Polymerization: Will not occur
Hazardous Decomposition Products: Decomposition will not occur if handled and stored properly.

11. Toxicological Information

Not Available
No Components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

12. Ecological Information

Environmental Effects: Not Available
Important Environmental Characteristics: Not Available
Aquatic Toxicity: Not Available

13. Disposal Information

Waste Disposal: Unclean empty containers should be disposed of in the same manner as the contents. Avoid washing material into sewer systems without proper treatment and authorization by the treatment facility management. Treat or dispose of waste material in accordance with all local, state/provincial and federal regulations.

14. Transportation Information

Transportation of Dangerous Goods Information for TDG, DOT (49 CFR), by Ship (IMDG Code):
Proper Shipping Name AEROSOLS, : FLAMMABLE
Class: 2.1
Identification number: UN 1950
LTD QTY, ORM-D (503 ml/can)

Transportation of Dangerous Goods by Air (ICAO/IATA):
Proper Shipping Name: AEROSOLS, FLAMMABLE
Class: 2.1
Identification number: UN 1950

15. Regulatory Information

Miscellaneous Information: This material or all of its components are listed on the Inventory of Existing Chemical Substances under the Toxic Substance Control Act (TSCA) and the Canadian Domestic Substance List (DSL).

16. Other Information

Reason for Issue……: New
Approval Date……: January 12, 2012
Additional Information: The data in this Material Safety Data Sheet relates only to the specific material designate herein. It does not relate to use in combination with any other material or in any process.
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of our knowledge and belief. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. It is the responsibility of the users to comply with all applicable federal, state/provincial and local laws and regulations.