QMI MATERIAL SAFETY DATA SHEET

QMI V.M.E.R – Volumetric Efficiency Restorer

Revision Date: 06/10/2009

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

QMI, Inc.
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USA

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Product name: VMER – Volume-Metric Efficiency Restorer
Product code: GL1808

2. HAZARDS IDENTIFICATION

Primary hazards and critical effects: Warning! May cause respiratory tract, eye and skin irritation. Aspiration hazard if swallowed.

Physical/chemical hazards: Combustible.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Concentration
Mineral Spirits	8052-41-3	>=60%
Distillates and residual oils	64742-65-0	>=25%
Solvent Naphtha (petroleum), light aromatic	64742-95-6	>=4-<8%
Polyolefin Alkyl Phenol Alkyl Amine	Proprietary	>=3-<4%
Trimethylbenzene 1,2,4	95-63-6	>=1.4-<2.8%
Trimethylbenzene 1,3,5	108-67-8	>=.7-<1.4%

4. FIRST AID MEASURES

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion: DO NOT induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. If affected person is fully conscious, give one glass of water to drink. Never give anything by mouth to an unconscious person. Get immediate medical attention.

Skin contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately.

Eye contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES

Extinguishing media: In case of fire, use water spray (fog), foam, dry chemical or CO2.

Fire-fighting procedures: Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear

Fire/explosion hazards: COMBUSTIBLE.
VAPOR MAY CAUSE FLASH FIRE. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Flash point: 107°F / 42°C

Flammability Class for Flammable Liquids: Combustible Liquid Class II

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Immediately contact emergency personnel. Eliminate all ignition sources. Keep unnecessary personnel away.
Use suitable protective equipment (section 8). Follow all fire-fighting procedures (section 5). Do not touch or walk through spilled material.

Environmental precautions: If emergency personnel are unavailable, contain spilled material. For small spills, add absorbent (soil may be used in the absence of other suitable materials) and use a non-sparking or explosion-proof means transfer material to a sealable, appropriate container for disposal.
For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal. Avoid contact of spilled material with soil and prevent runoff entering surface waterways.

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin and clothing. Keep container closed. Use only with adequate ventilation. Avoid breathing vapor or mist. Keep away from heat, sparks and flame. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Wash thoroughly after handling.

Storage: Keep container in a well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Respiratory system: Use appropriate respiratory protection if there is the potential to exceed the exposure limit(s).

Personal Protective Equipment: Where contact is likely, wear chemical resistant gloves, a chemical resistant suit, and boots. Additional body garments should be used based upon the task being performed.

Hands: Hand Protection: Wear chemical resistant gloves. Nitrile gloves of minimum thickness 0.4 mm have an expected breakthrough time of 30 minutes or less when in frequent contact with the product. Due to variable exposure conditions the user must consider that the practical use of a chemical-protective glove in practice may be much shorter than the permeation time above. Manufacturer's directions for use, especially about the minimum thickness and the minimum breakthrough time, must be observed. This information does not replace suitability tests by the end user since glove protection varies depending on the conditions under which the product is used.

Eyes: Safety goggles are considered minimum protection. Goggles with a face shield may be necessary depending on quantity of material and conditions of use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid
Form	Liquid
Color	Amber
Odor	Hydrocarbon-like
pH	No data
Flash point	107°F / 42°C
Specific Gravity @ 60°F / 15.5°C	38.04

10. STABILITY AND REACTIVITY

Stability: Stable.

Conditions to avoid: Strong oxidizing and reducing agents

Incompatible products: Strong oxidizing agents

Conditions to avoid: High temperatures, sparks, and open flames.

11. TOXICOLOGICAL INFORMATION

Routes of entry: Skin, Eyes, Ingestion, and Inhalation.

Target organs: Contains material which may cause damage to the following organs: blood, kidneys, lungs, liver, heart, gastrointestinal tract, upper respiratory tract, immune system, skin, eyes, central nervous system (CNS).

Acute effects

Inhalation: Irritating to respiratory system.

Ingestion: Aspiration hazard if swallowed. Can enter lungs and cause damage. Does not meet EU R65 classification criteria. Ingestion may cause gastrointestinal irritation and diarrhea.

Skin contact: Irritating to skin.

Eye contact: Irritating to eyes.

Adverse effects: Adverse symptoms may include the following:: In the presence of slight maternal toxicity, fetotoxic effects have been observed in the offspring of rats exposed by inhalation to Solvent Naphtha (petroleum) light aromatic.

- Adverse symptoms may include the following:: This product contains Trimethylbenzene. Literature data indicate that long-term inhalation exposure causes blood effects in laboratory animals.

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- Adverse symptoms may include the following:: Central nervous system, liver, kidneys, and blood effects by inhalation and heart beat irregularity (arrhythmia) and heart beat - increase. High exposures to xylene in some animal studies, often at levels toxic to the mother, affected embryo/fetal development. The significance of this finding to humans is not known. Xylene vapor has caused occupational skin sensitization in humans.

- Adverse symptoms may include the following:: liver, kidneys, lungs, and heart effects by dermal route and immune system effects by ingestion route. Not a developmental toxicant when administered dermally. Weak carcinogenic liver response was observed in mice, but not rats.

12. ECOLOGICAL INFORMATION

Environmental hazards: Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment. Based on calculation.

Environmental fate: This product contains components which may be persistent in the environment.

13. DISPOSAL CONSIDERATIONS

Waste disposal methods:

Dispose of in accordance with all applicable local, state and federal regulations.

14. TRANSPORT INFORMATION

US DOT: Not regulated.

IMDG: **Shipping Name:** Flammable Liquid, n.o.s. (contains petroleum distillates) **UN #:** 1993 **Hazard Class:** 3
Packing Group: III **Flash Point:** 107°F / 42°C

IATA: **Shipping Name:** Flammable liquids, n.o.s. (contains petroleum distillates).
UN #: 1993 **Hazard Class:** 3
Packing Group: III **Flash Point:** 107°F / 42°C

The above transport information is provided to assist in the proper classification of this product and may not be suitable for all shipping conditions.

15. REGULATORY INFORMATION

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

SARA Hazard Classification Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard

SARA 313 Component(s) Benzene, 1,2,4-trimethyl¬ >=1.4-<2.8%

Risk Phrases
R10 - Flammable.
R36/37138 - Irritating to eyes, respiratory system and skin.
R67 - Vapors may cause drowsiness and dizziness.
R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases
S16 - Keep away from sources of ignition - No smoking.
S2 3- Do not breathe vapor.
S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.
S57- Use appropriate containment to avoid environmental contamination.

	Health	Flammability	Reactivity
HMIS	1	2	0
NFPA	1	2	0

16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.