MATERIAL SAFETY DATA SHEET

SECTION I - PRODUCT INFORMATION

Trade name: CQS-1HP
Synonyms: Microsurfacing asphalt emulsion
Manufacturer: General Liquids Canada Ltd.
1233 Rocky Lake Drive
Waverley, Nova Scotia, Canada
B2R 1S1

TELEPHONE NUMBER - GENERAL ASSISTANCE:
8-5 (M-F, AST) (902) 835-3311
24 hr. contact #: (902) 223-9302

SECTION II - COMPOSITION/INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS #</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Concentrations (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt</td>
<td>8052-42-4</td>
<td>ND</td>
<td>0.5MG/M3 (asphalt fumes)</td>
<td>57 – 65</td>
</tr>
<tr>
<td>Polymers</td>
<td>Proprietary</td>
<td>ND</td>
<td>ND</td>
<td>0 - 6</td>
</tr>
<tr>
<td>Emulsifiers</td>
<td>Proprietary</td>
<td>ND</td>
<td>ND</td>
<td>0 - 4</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>ND</td>
<td>ND</td>
<td>Balance</td>
</tr>
</tbody>
</table>

TLV for asphalt relates to the fume given off when asphalt is heated. Additives are not considered hazardous as contained in this product.

Asphalt emulsion is a water based suspension of asphalt cement and is used as a binder in asphalt paving applications such as paving roads, driveways, parking lots and other surface, base, or sub-base applications. Asphalt is produced from high temperature vacuum distillation of crude oil. Composition varies depending on source of crude and specifications of final product. It can contain trace amounts of sulfur, nitrogen and oxygen compounds as well as trace amounts of heavy metals. Different asphalt grades may contain an anti-striping additive. Asphalt products can contain hydrogen sulfide, because it is naturally occurring in crude oil from which asphalt is derived. Hydrogen sulfide can also be present as a by-product of asphalt processing.
SECTION III - PHYSICAL DATA

Physical State: Liquid
Boiling Point: 212 °F /100 C (water phase)
Specific Gravity (water=1) 0.95 – 1.13
Freezing Point: 0°C (water phase)
Vapour Pressure < 1mm Hg @ 20°C
Vapour Density > 1(Air=1)
Freezing Point: 0°C (water phase)
Evaporation Rate N/D
Solubility in water Partially miscible with water.
Appearance and Odour: Brown, viscous liquid with characteristic asphalt odour

SECTION IV - FIRE & EXPLOSION DATA

Flash Point: Greater than 212 Degrees °F/ 100 °C for the product with water vapour in the atmosphere. In normal use in an open environment, the product will not support combustion. In a closed environment, with water driven off, will burn like oil.

Autoignition Temperature: > 370° C (> 698°F)

Extinguishing Media: Regular Foam, Carbon Dioxide, Dry Chemical, water sponge

Special Fire Fighting Procedures: Use appropriate extinguishing media for the size of the fire. Water spray and foam can cause frothing. Use of water on product above 100°C (212°F), can cause product to expand with explosive force.

Unusual Fire and Explosion Data: If tank, rail car or tanker truck is involved in fire, isolate for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all direction. Shut off fuel to fire if possible to do so without hazard. Cool containing vessels with water spray in order to prevent pressure buildup, autoignition or explosion. Avoid flushing spilled product into sewers, streams or other bodies of water.

SECTION V - REACTIVITY DATA

Stability: Stable. Avoid contact with incompatible materials, excessive heat, sources of ignition and open flame.

Incompatibility: Asphalt emulsion is incompatible with strong acids or bases and oxidizing agents such as nitrates, chlorates and peroxides.

Hazardous decomposition: When heated, may liberate carbon monoxide, carbon dioxide, hydrogen sulfide, trace oxides of sulfur and nitrogen and various hydrocarbons.

Hazardous Polymerization: None
SECTION VI– HEALTH HAZARD DATA

Potential Health Effects: Risk of injury depends on duration and level of exposure.

Eye Contact: Hot product will cause severe thermal burns. Eye contact with asphalt emulsion and asphalt emulsion fumes can cause moderate eye irritation, redness, itching and chemical burns. Eye exposures require immediate first aid to prevent damage to the eye.

Skin Contact: Direct contact with hot asphalt emulsion will cause severe thermal burns. Repeated or prolonged contact to asphalt emulsion may cause dry skin, discomfort, irritation, dermatitis and chemical burns.

Inhalation: Hot asphalt emulsion releases irritating fumes or vapours such as smoke, carbon dioxide, carbon monoxide and unburned hydrocarbons. Exposure to fumes or vapours may cause irritation of the nose and throat and symptoms such as headache, dizziness, loss of co-ordination and drowsiness. Hydrogen sulfide and other sulfur-containing gases can evolve from this product at elevated temperatures. Hydrogen sulfide can cause respiratory paralysis and death, depending on concentrations and duration of exposure. Do not rely on ability to smell vapours, since odour fatigue rapidly occurs. Effects of over exposure include irritation of the nose and throat, nausea, vomiting and signs of nervous system depression.

Carcinogenicity: Asphalt emulsion is not listed as a carcinogen by IARC or NTP.

Ingestion: Do not ingest asphalt emulsion. Hot product will cause thermal burns. Ingestion may result in nausea, vomiting, diarrhea and restlessness.

Medical Conditions Aggravated by Exposure: Individuals with pre-existing skin conditions can be aggravated by exposure.

SECTION VII - FIRST AID

Eye Contact: Flush with large amounts of cool water, for at least 15 minutes, including under lids. Remove contact lenses if worn. Get medical attention.

Inhalation: Remove individual to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration. Keep individual warm and quiet, and get medical attention.

Ingestion: Do not induce vomiting. If conscious, immediately drink plenty of water. Seek medical attention or contact poison control centre immediately.

Skin Contact: Remove contaminated clothing. Wash with cool water and a pH neutral soap or a mild skin detergent. Do not use solvents or thinners to remove product from skin. Seek medical attention for burns, rash, irritation and dermatitis.
For contact with hot product, immerse or flush skin with cold water for at least 15 minutes. Call a physician.

**Note to Physician:** No attempt should be made to remove firmly adhering asphalt from the skin. Once the asphalt has cooled, it will do no further harm and it provides a sterile covering over the burned area. As healing takes place, the asphalt will detach itself, usually after a few days.

### SECTION VIII - SPILL OR LEAK PROCEDURES

**General:** Take proper precautions to ensure your own health and safety before attempting spill control or clean-up. Remove all potential ignition sources. Isolate the area of the spill and restrict access. Avoid using combustive absorbers such as sawdust. Wear appropriate protective equipment.

**Small Spill:** Absorb liquid on paper, vermiculite, floor absorbent, or other absorbent material. Transfer material to a disposal container, and dispose of in accordance with Local, Provincial, and Federal regulations.

**Large Spill:** Prevent run off to sewers, streams, or other bodies of water. If run off occurs, immediately notify all proper authorities and agencies as required. Persons not wearing protective equipment should be excluded from the spill area until clean up is completed. Material may be taken up with sand, earth, floor absorbent, or other absorbent material. Shovel into containers and dispose of in accordance with Local, Provincial, and Federal regulations.

### SECTION IX - PROTECTIVE EQUIPMENT

**Respiratory Protection:** Under ordinary conditions no respiratory protection is required. Wear a NIOSH approved respirator that is properly fitted and is in good condition when exposed to vapours above exposure limits. If the TLV of a product or any component is exceeded, a NIOSH/MSHA jointly approved air supply respirator is advised in the absence of proper environment control. OSHA regulations also permit other NIOSH/MSHA respirators under specific conditions. Engineering or administrative controls should be implemented to reduce exposure.

**Ventilation:** Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

**Protective Clothing:** To prevent repeated or prolonged skin contact, wear resistant gloves such as Neoprene coated and impervious boots.

**Eye Protection:** Chemical splash goggles in accordance with OSHA regulations are advised. However, OSHA regulations also permit other types of safety glasses. Contact your safety equipment supplier.
SECTION X - HANDLING AND STORAGE

Handle with care and use appropriate control measures. Use appropriate grounding and bonding practices. Store in properly closed containers that are appropriately labeled and in a cool well-ventilated area. Do not expose to heat, open flames, strong oxidizers or other sources of ignition. Do not cut, drill, grind or weld on empty containers since they may contain flammable residues.

Significant concentrations of hydrogen sulfide (H₂S) gas can be generated and accumulate in storage tanks and bulk transport compartments which may require additional precautions and procedures during loading and unloading. When opening covers and outlet caps on storage tanks, use face shield and gloves to avoid possible injury from pressurized product. Stay upwind and vent open hatches before unloading. Keep heating coils and flues in storage tanks, trucks and kettles covered with product. Do not overheat.

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

This product is not classified as a hazardous Material under U.S. DOT and Canadian TDG regulations. This product is non-hazardous when shipped at ambient temperatures below 100°C.

Preparation Date: June 30, 2010