

QPR Liquid

SECTION 1. IDENTIFICATION

Product Identifier	QPR Liquid
Other Means of Identification	(i) QPR 2000, (ii) QPR 2000 (AS) with anti-strip (liquid)
Recommended Use	Cold Mix Liquid.
Restrictions on Use	None known.
Manufacturer/Supplier Identifier	McAsphalt Industries Ltd, 8800 Sheppard Ave East, Toronto, Ontario, M1B 5R4, 416-281-8181
Emergency Phone No.	CANUTEC, (613) 996 - 6666, 24 hours McAsphalt Industries Ltd., 1 - (800) - 268 - 4238, 8AM-5PM Monday to Friday

SECTION 2. HAZARD IDENTIFICATION

Classification

Flammable liquid - Category 4; Carcinogenicity - Category 2

Label Elements



Warning

IF exposed or concerned: Get medical advice/attention.
Store in a well-ventilated place.

Other Hazards

At higher concentrations of H₂S (above 10 ppm), inhalation may become extremely toxic and may cause respiratory-tract irritation and respiratory failure, coma or death. Pulmonary edema can occur up to 24 hours after hydrogen sulphide exposure. While hydrogen sulphide emits a strong odour of rotten eggs, detection by smell is not sufficient as a warning property for exposure to this substance, as it may deaden the sense of smell quickly.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Asphalt (Bitumen) fume	8052-42-4	55-80		
FUEL OIL NO. 2	68476-30-2	15-35		
Asphalt Additive	64754-94-5, 111-41-1	0-5		

Notes

Antistripping additive added in quantities < 1% when indicated. Heated product may evolve vapours irritating to the nose, throat and lungs. See section 8 for further information.
During storage or transit of hot asphalt, hydrogen sulphide may be generated.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Move exposed person to fresh air. Take precautions to ensure your own safety before attempting rescue (e.g. wear appropriate protective equipment). Keep at rest in a position comfortable for breathing. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. If the heart has stopped, trained personnel should start cardiopulmonary resuscitation (CPR) or automated external defibrillation (AED).

Skin Contact

For hot asphalt splash, cool affected body part with water immersion or shower. Do not attempt to remove asphalt from the skin. Once the bitumen has cooled, it will do no further harm and in fact provide a sterile covering over a burnt area. As healing takes place, the bitumen plaque, the bitumen plaque will detach itself, usually after a few days. For skin soiling without underlying burn, cleanse with mineral oil followed by soap and water. Use olive oil in vicinity of eyes.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Get medical attention immediately.

Ingestion

Wash out mouth with water. Move exposed person to fresh air. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

First-aid Comments

If exposed or concerned, get medical advice or attention.

Most Important Symptoms and Effects, Acute and Delayed

If swallowed:

Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Immediate Medical Attention and Special Treatment

Target Organs

Causes damage to the following organs: digestive system, gastrointestinal tract.

Special Instructions

No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Large fire: Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media

Do not spray water onto burning product as this may cause spattering and spreading of the flame.

Specific Hazards Arising from the Product

Flammability of the product: Will burn on prolonged exposure to flame or high temperature.

Hydrogen sulphide may be released if the product is overheated and may accumulate in the tank headspace or any other confined space.

Carbon oxides (CO, CO₂), smoke and irritating vapours as products of incomplete combustion.

Special Protective Equipment and Precautions for Fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece.

Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn. See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

Product Identifier: QPR Liquid - Ver. 1

SDS No.: 0176

Date of Preparation: October 26, 2018

Date of Last Revision: October 26, 2018

Page 02 of 08

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Environmental Precautions

Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and Materials for Containment and Cleaning Up

Note: see section 1 for emergency contact information.

Other Information

Contact supplier, local fire and emergency services for help. Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

It is good practice to: avoid breathing product; avoid skin and eye contact and wash hands after handling. Do NOT smoke in work areas. Do NOT eat, drink or store food in work areas. Remove contaminated clothing and protective equipment before entering eating areas or leaving work area. Wash hands thoroughly after handling this product and before eating, using the washroom or leaving work area. Properly dispose of any contaminated items, including shoes, that cannot be decontaminated. DO NOT re-use. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials(see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Asphalt (Bitumen) fume	0.5 mg/m ³ (I) A4 BEI		Not established			
FUEL OIL NO. 2	100 mg/m ³					

Appropriate Engineering Controls

If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Individual Protection Measures

Eye/Face Protection

If a risk assessment indicates that it is necessary to avoid exposure to liquid splashes, mists or dusts, then safety eyewear complying with an approved standard should be used.

Skin Protection

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

If a risk assessment indicates it is necessary, chemical-resistant, impervious gloves complying with an approved

Product Identifier: QPR Liquid - Ver. 1

SDS No.: 0176

Date of Preparation: October 26, 2018

Date of Last Revision: October 26, 2018

Page 03 of 08

standard should be worn at all times when handling chemical products. Suitable materials are: nitrile rubber
Suitable materials are: nitrile rubber.

Respiratory Protection

If a risk assessment indicates that it is necessary (i.e. H₂S concentration is above 10ppm exposure limit), use a properly fitted, air-purifying or air-fed respirator complying with an approved standard. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: organic vapour filter cartridge or canister with a dust, fume or mist filter (R, or P series) may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air-purifying respirators is limited.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Dark black - brown oily liquid. Particle Size: Not available
Odour	Characteristic asphaltic odour or "rotten egg" odour if H ₂ S present, but odour is an unreliable warning, since it may deaden the sense of smell. (Asphalt (Bitumen))
Odour Threshold	Not available
pH	~ 3 (estimated)
Melting Point/Freezing Point	Not available (melting); Not available (freezing)
Initial Boiling Point/Range	> 160 °C (320 °F) (estimated)
Flash Point	> 80 °C (176 °F) (open cup)
Evaporation Rate	Not available
Flammability (solid, gas)	Not available
Upper/Lower Flammability or Explosive Limit	Not available (upper); Not available (lower)
Vapour Pressure	Not available
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	~ 1.01
Solubility	Insoluble in water; Not available (in other liquids)
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	Not available (kinematic)
Other Information	
Physical State	Liquid
Surface Tension	Not available
Electrical Conductivity	Not available
Vapour Pressure at 50 deg C	Not available
Saturated Vapour Concentration	Not available

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Stable under normal storage conditions.

Possibility of Hazardous Reactions

Contact between heated Asphalt and water can cause a violent eruption. May release CO_x, NO_x, SO_x, PO_x, H₂S,

Product Identifier: QPR Liquid - Ver. 1

SDS No.: 0176

Date of Preparation: October 26, 2018

Date of Last Revision: October 26, 2018

Page 04 of 08

hydrocarbons, smoke and irritating vapours when heated to decomposition.

Conditions to Avoid

Under normal conditions of storage and use, hazardous polymerisation will not occur. Exposure to heat.

Incompatible Materials

Reactive with oxidizing agents acids. Bases. Oxidizers.

Not corrosive to metals.

Hazardous Decomposition Products

May release COx, NOx, SOx, POx, H2S, hydrocarbons, smoke and irritating vapours when heated to decomposition.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Dermal contact. Eye contact, inhalation. Ingestion.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Asphalt (Bitumen) fume		> 5000 mg/kg (rat)	> 2000 mg/kg (rabbit)
FUEL OIL NO. 2		~ 12000 mg/kg (rat)	
Asphalt Additive		> 2000 mg/kg (rat)	3266 mg/kg (rabbit)

Skin Corrosion/Irritation

May cause mild irritation to skin. Signs/symptoms may include localized redness, swelling, and itching. Hot liquid product may cause serious thermal burns on direct contact. Asphalt fumes can increase susceptibility to sunburn. Harmful in contact with skin. May cause sensitization by skin contact. Contact with hot material can cause thermal burns.

Serious Eye Damage/Irritation

May cause mild irritation based on information for closely related chemicals.

Hot liquid product may cause thermal burns.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

May be harmful based on information for closely related materials.

Take precaution in confined spaces.

If concentrations of H2S hydrogen sulphide are above 10ppm, Inhalation of this product may cause respiratory tract irritation and Central Nervous System (CNS) Depression. symptoms of which may include' weakness, dizziness, slurred speech, drowsiness, unconsciousness and in cases of severe over-exposure; coma and death. Pulmonary edema can occur up to 24 hours after hydrogen sulphide exposure. While hydrogen sulphide emits a strong odour of rotten eggs, detection by smell is not sufficient as a warning property for exposure to this substance, as it may deaden the sense of smell quickly.

Skin Absorption

May be harmful based on information for closely related materials.

Ingestion

Harmful based on information for closely related materials.

Severe irritation or burns to the mouth, throat and stomach.

Harmful. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard

Not known to be an aspiration hazard.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Harmful based on studies in people and animals.

May cause irritation of the respiratory system. May cause respiratory tract injury, areas of skin to darken.

No known significant effects or critical hazards.

Respiratory and/or Skin Sensitization

Product Identifier: QPR Liquid - Ver. 1

SDS No.: 0176

Date of Preparation: October 26, 2018

Date of Last Revision: October 26, 2018

Page 05 of 08

May cause an allergic reaction (skin sensitization) based on limited evidence.

Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Asphalt (Bitumen) fume	Group 2B	A4		
FUEL OIL NO. 2	Group 3	A3	Not Listed	
Asphalt Additive	Not evaluated	Not designated	Not Listed	Not Listed

IARC: Group 2B - Possibly carcinogenic to humans: occupational exposures to straight-run asphalt cement and its emissions during road paving a Group 2B ("possibly carcinogenic to humans") classification. This Group 2B classification puts road paving in the same category as numerous exposures, including cell phones and coffee. An IARC working group has concluded that occupational exposures to straight-run bitumens and their emissions during road paving are 'possibly carcinogenic to humans' (Group 2B).

Key to Abbreviations

ACGIH® = American Conference of Governmental Industrial Hygienists. A3 = Animal carcinogen. IARC = International Agency for Research on Cancer. Group 2B = Possibly carcinogenic to humans. Group 3 = Not classifiable as to its carcinogenicity to humans. ACGIH® = American Conference of Governmental Industrial Hygienists. A4 = Not classifiable as a human carcinogen.

Reproductive Toxicity

Development of Offspring

No information was located.

No known significant effects or critical hazards.

Sexual Function and Fertility

No information was located.

No known significant effects or critical hazards.

Effects on or via Lactation

Not known to cause effects on or via lactation.

Germ Cell Mutagenicity

No information was located.

No known significant effects or critical hazards.

Interactive Effects

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

No known significant effects or critical hazards.

Ecotoxicity

Marine Pollutant.

Persistence and Degradability

Not available.

Bioaccumulative Potential

(Asphalt (Bitumen)) this product and its degradation products are not known to bioaccumulate.

Mobility in Soil

Studies are not available.

Other Adverse Effects

There is no information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Contact local environmental authorities for approved disposal or recycling methods in your jurisdiction. Recycle and

Product Identifier: QPR Liquid - Ver. 1

SDS No.: 0176

Date of Preparation: October 26, 2018

Date of Last Revision: October 26, 2018

Page 06 of 08

reuse product, if possible. The required hazard evaluation of the waste and compliance with the applicable hazardous waste laws are the responsibility of the user. This product and its container must be disposed of as hazardous waste. Do NOT dump into any sewers, on the ground or into any body of water. Store product for disposal as described under Storage in Section 7 of this safety data sheet. Empty containers retain product residue. Follow label warnings even if container appears to be empty. The container for this product can present explosion or fire hazards, even when emptied. Do not cut, puncture, or weld on or near this container. Do not reuse empty containers. Dispose of or recycle empty containers through an approved waste management facility.

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	3256	QPR Liquid (Elevated Temperature Liquid, flammable, N.O.S., with flashpoint above 60.5, at or above its flashpoint)	3	III
US DOT	3256	QPR Liquid (Elevated Temperature Liquid, flammable, N.O.S., with flash point above 37.8 c, at or above its flash point)	3	III

Environmental Hazards Potential Marine Pollutant (FUEL OIL NO. 2)

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

The components of this product are in compliance with the chemical notification requirements of the NSN regulation under CEPA all ingredients are listed on the DSL/NDSL.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

SECTION 16. OTHER INFORMATION

NFPA Rating Health - 2 Flammability - 2 Instability - 0

SDS Prepared By EPC & Risk Management Department

Phone No. 1-800-268-4238

Date of Preparation October 26, 2018

Date of Last Revision October 26, 2018

Key to Abbreviations ACGIH® = American Conference of Governmental Industrial Hygienists
 AIHA® = AIHA® Guideline Foundation HSDB® = Hazardous Substances Data Bank
 IARC = International Agency for Research on Cancer
 NFPA = National Fire Protection Association NIOSH = National Institute for Occupational Safety and Health
 NTP = National Toxicology Program
 OSHA = US Occupational Safety and Health Administration
 RTECS® = Registry of Toxic Effects of Chemical Substances

References CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).
 HSDB® database. US National Library of Medicine. Available from Canadian Centre for

Product Identifier: QPR Liquid - Ver. 1

SDS No.: 0176

Date of Preparation: October 26, 2018

Date of Last Revision: October 26, 2018

Page 07 of 08

Occupational Health and Safety (CCOHS). Registry of Toxic Effects of Chemical Substances (RTECS®) database. Dassault Systèmes/BIOVIA (“BIOVIA”). Available from Canadian Centre for Occupational Health and Safety (CCOHS). NIOSH Pocket Guide database. National Institute for Occupational Safety and Health. Available from Canadian Centre for Occupational Health and Safety (CCOHS).

Disclaimer

To the best of our knowledge, the information herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Product Identifier: QPR Liquid - Ver. 1
Date of Preparation: October 26, 2018
Date of Last Revision: October 26, 2018

SDS No.: 0176

Page 08 of 08