



QPR Liquid

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	QPR Liquid
Product Identifier	(i) QPR 2000, (ii) QPR 2000 (AS) with antri-strip (liquid)
Manufacturer / Supplier	McAsphalt Industries Ltd, 8800 Sheppard Ave East, Toronto, Ontario, M1B 5R4
Emergency Contact Information	CANUTEC, (613) 996 - 6666, 24 hours McAsphalt Industries Ltd., 1 - (800) - 268 - 4238, 8AM-5PM Monday to Friday
Use	Cold Mix Liquid

2. HAZARDS IDENTIFICATION

Emergency Overview Dark black - brown oily liquid. Characteristic asphaltic odour or "rotten egg" odour if H2S present, but odour is an unreliable warning, since it may deaden the sense of smell. (Asphalt (Bitumen)) odour. Can ignite if strongly heated. Presents little or no hazard if accidentally released. Warning!
Causes sever respiratory tract, eye and skin irritation.
May cause allergic skin reaction
Causes damage to the following organs: respiratory tract, skin, eye, lens or cornea.
May be harmful if absorbed through skin or if swallowed.
May cause damage to the following organs: digestive system, gastrointestinal tract.

Potential Health Effects

Route of Exposure Dermal contact. Eye contact, inhalation. Ingestion.

Inhalation 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, unconciosness and in cases of severe overexposure; coma and death. At higher concentrations (above 10 ppm), hydrgen sulphide is extremely toxic by inhalation, may cause respiratory-tract irritation and respiratory failure, 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 Contact Harmful in contact with skin. Severely irritating to the skin. May cause sensitization by skin contact. Contact with hot material can cause thermal burns.

Eye Contact Hot liquid product may cause thermal burns. Severely irritating to eyes.

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

Effects of Long-Term (Chronic) Exposure No known significant effects or critical hazards.

Carcinogenicity 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).

Teratogenicity / Embryotoxicity No known significant effects or critical hazards.

Reproductive Toxicity No known significant effects or critical hazards.

Mutagenicity No known significant effects or critical hazards.

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

Potential Environmental Effects

Not hazardous to the environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration %	Other Identifiers
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 vapors 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.

4. FIRST AID MEASURES

First Aid Procedures

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 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 removal of asphalt but split longitudinally if circumferential to avoid tourniquet effect. No attempt should be made to remove firmly adhering bitumen 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 flush 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, see a doctor for medical advice.
Note to Physicians	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. FIRE FIGHTING MEASURES

Flammable Properties	Flammability of the product: Will burn on prolonged exposure to flame or high temperature.
Suitable Extinguishing Media	Large fire: Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.
Specific Hazards Arising from the Chemical	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, CO ₂), smoke and irritating vapours as products of incomplete combustion.
Protective Equipment and Precautions for Firefighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece. Firefighters 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.

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6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	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 for Containment and Clean-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.

7. HANDLING AND STORAGE

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.
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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

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

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.

Personal Protective Equipment (PPE)

Eye/Face Protection Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

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. Chemical-resistant, impermeable gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Suitable materials are: nitrile rubber.

Respiratory Protection Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. 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.

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General Hygiene Considerations

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 MSDS.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
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
Boiling Point	> 160 °C (320 °F) (estimated)
Freezing Point	Not available
Relative Density (water = 1)	~ 1.01
Solubility in Water	Insoluble
Solubility in Other Liquids	Not available
pH	~ 3 (estimated)
Partition Coefficient, n-Octanol/Water	Not available
Viscosity-Kinematic	Not available
Surface Tension	Not available
Vapour Pressure	Not available
Vapour Pressure at 50 deg C	Not available
Saturated Vapour Concentration	Not available
Vapour Density (air = 1)	Not available
Evaporation Rate	Not available
Flash Point	> 80 °C (176 °F) (open cup)
Lower Flammable/Explosive Limit	Not available
Upper Flammable/Explosive Limit	Not available
Auto-ignition Temperature	Not available
Electrical Conductivity	Not available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal storage conditions.
Conditions to Avoid	Under normal conditions of storage and use, hazardous polymerisation will not occur. Exposure to heat.
Incompatible Materials	Reactive with oxidising agents acids. Bases. Oxidizers. Not corrosive to metals.
Hazardous Decomposition Products	May release CO _x , NO _x , SO _x , PO _x , H ₂ S, hydrocarbons, smoke and irritating vapours when heated to decomposition.

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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, hydrocarbons, smoke and irritating vapours when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

LC50/LD50 Values

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 Irritation/Corrosion

Irritating 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.

Eye Irritation/Corrosion

Can cause moderate or severe eye irritation based on skin irritation information.

Effects of Short-Term (Acute) Exposure

Inhalation

May be harmful based on information for closely related materials. Yes, caution in confined spaces.

Skin Absorption

May be harmful based on information for closely related materials. Skin to darken.

Ingestion

Harmful based on information for closely related materials. Severe irritation or burns to the mouth, throat and stomach.

Effects of Long-Term (Chronic) Exposure

Harmful based on studies in people and animals. May cause irritation of the respiratory system if inhaled. May cause respiratory tract injury, areas of skin to darken.

Respiratory and/or Skin Sensitization

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.

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.

Teratogenicity / Embryotoxicity

No information was located.

Reproductive Toxicity

No information was located.

Mutagenicity

No information was located.

Toxicologically Synergistic Materials

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No information was located.

12. ECOLOGICAL INFORMATION

General Comments	No known significant effects or critical hazards.
Ecotoxicity	Marine Pollutant.
Persistence and Degradability	Not available.
Bioaccumulation / Accumulation	(Asphalt (Bitumen)) this product and its byproducts are not known to bioaccumulate.
Mobility	Studies are not available.
Other Adverse Effects	There is no information available.

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

Shipping Information

Regulation	UN No.	Shipping Name	Class	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

Other Transport Information

Special Shipping Information	Not applicable
Environmental Hazards	Potential Marine Pollutant (FUEL OIL NO. 2)

15. REGULATORY INFORMATION

Canada

WHMIS Classification

B3 - Combustible Liquid; D2B - Toxic (Skin irritant; Eye irritant)

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by the Controlled Products Regulations.

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, 1999. All ingredients are listed on the DSL/NDSL.

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USA

US OSHA Regulatory Status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200 (1994)).

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

All ingredients are listed on the TSCA Inventory. The components of this product are in compliance with the chemical notification requirements of TSCA.

16. OTHER INFORMATION

NFPA Rating **Health - 2** **Flammability - 2** **Instability - 0**

MSDS Prepared By EPC & Risk Management Department

Phone No. 1-800-268-4238

Date of Preparation December 10, 2014

Revision Indicators The following MSDS content was changed on May 04, 2015:

Key to Abbreviations ACGIH® = American Conference of Governmental Industrial Hygienists

AIHA = American Industrial Hygiene Association

HSDB® = Hazardous Substances Data Bank

IARC = International Agency for Research on Cancer

NFPA = National Fire Prevention 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

Occupational Health and Safety (CCOHS). Registry of Toxic Effects of Chemical Substances

(RTECS®) database. Accelrys, Inc. 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.

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