

Material Safety Data Sheet

Section 1: PRODUCT AND COMPANY INFORMATION

Product Name(s): QPR® Liquid Blend

Product Identifiers: QPR® Liquid Blend, QPR® Liquid, Liquid Asphalt, Asphalt Binder, Quality Pavement Repair Liquid® Blend.

Manufacturer:
Coco Paving Inc.
949 Wilson Avenue
Toronto, Ontario M3K 1G2

Information Telephone Number:
(416) 633-9670

Emergency Telephone Number:
CANUTEC (613) 996-6666





Product Use: QPR® Liquid Blend is an asphalt binder used for the production of cold mixed asphalt.

Section 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component	Percent (By Weight)	CAS Number	OSHA PEL – TWA (mg/m ³)	ACGIH TLV-TWA (mg/m ³)	LD ₅₀ (rat, oral)	LC ₅₀
Asphalt Cement (as Fume)	60-80	8052-42-4	NA	0.5	NA	NA
#2 Fuel Oil (as Vapor & Aerosol)	15-30	68476-30-2	2000	100	12g/kg	NA
Aliphatic carboxylic acids (other supplier)	< 2	Proprietary*	NA	NA	>500 mg/kg	NA
Aliphatic polyamides (other supplier)	< 2	Proprietary*	NA	NA	>500 mg/kg	NA

Note: *HMIRC granted CBI #6163, on March 18, 2005.

Section 3: HAZARD IDENTIFICATION

WARNING		
	<p>Irritant: Causes severe eye, skin and inhalation irritation; May cause allergic skin reaction and sensitization.</p> <p>Use proper engineering controls, work practices, and personal protective equipment.</p> <p style="text-align: center;">Read MSDS for details.</p>	 Respiratory Protection  Eye Protection  Chemical Gloves

Emergency Overview: QPR® Liquid is a black colored liquid that has a petroleum odor. Prolonged or repeated skin contact can cause sensitization or drying of the skin which may produce severe irritation or dermatitis. When this product is subject to high heat QPR® Liquid will cause thermal burns. When heated, this product will release toxic hydrogen sulfide (H₂S) vapors.

Potential Health Effects:

Eye Contact: Airborne mists or vapors may cause immediate or delayed irritation or inflammation. Eye contact with large amounts of QPR® Liquid can cause severe eye irritation, redness, and itching. Eye exposures require immediate first aid to prevent damage to the eye. Hot product causes severe burns.

Skin Contact: QPR® Liquid may cause dry skin, discomfort, irritation, sensitization and irritant and contact dermatitis. Repeated contact may cause skin irritation due to roughness of product. Hot product causes severe burns.

Section 3: HAZARD IDENTIFICATION (continued)

Dermatitis:	QPR® Liquid is capable of causing irritant contact dermatitis. Skin affected by dermatitis may include symptoms such as redness, itching, rash, scaling, and cracking.
Inhalation:	Breathing mists or vapors may cause nose, throat or lung irritation, including choking, depending on the degree of exposure. When this product is subject to high heat QPR® Liquid may release irritating fumes or vapors such as smoke, carbon dioxide, carbon monoxide, and unburned hydrocarbons. Hydrogen sulfide and other sulfur-containing gases can evolve from this product at elevated temperatures. Exposure to fumes, vapors, or mists may cause irritation of the nose and throat, and symptoms such as headache, dizziness, loss of coordination, and drowsiness.
Ingestion:	Do not ingest QPR® Liquid. Ingestion may result in nausea, vomiting, diarrhea, and restlessness. Aspiration (inadvertent suction) of liquid into the lungs must be avoided as even small quantities in the lungs can produce chemical pneumonia (fluid in the lungs), severe lung damage, and respiratory failure.
Notes:	QPR® is not listed as a carcinogen by IARC or NTP, some components of the product are. The International Agency for Research on Cancer (IARC) has concluded that occupational exposures to oxidized asphalt and their emissions during roofing operations are “probably carcinogenic to Humans (Group 2A). IARC concluded that occupational exposures to hard asphalt and their emissions during mastic asphalt work are “possibly carcinogenic to humans” (Group 2B). IARC concluded that occupational exposures to straight-run asphalt and their emissions during paving operations are “possibly carcinogenic to humans” (Group 2B).
Medical Conditions Aggravated by Exposure:	Individuals with lung disease (e.g. bronchitis, emphysema, COPD, pulmonary disease) and preexisting skin conditions can be aggravated by exposure.

Section 4: FIRST AID MEASURES

Eye Contact:	For contact with vapors or mist, rinse eyes thoroughly with water for at least 15 minutes. Seek medical attention. For contact with hot material, flush with large amounts of water for at least 15 minutes. Immediately call a physician.
Skin Contact:	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 rash, irritation, and dermatitis. For contact with hot material, immerse or flush skin with cold water for at least 15 minutes. Call a physician. Do not attempt to remove solidified material since removal may cause further tissue injury.
Inhalation:	Move person to fresh air. Seek medical attention for discomfort or if coughing or other symptoms do not subside.
Ingestion:	Do not induce vomiting. If conscious, have person drink plenty of water. Seek medical attention or contact poison control centre immediately.

Section 5: FIREFIGHTING MEASURES

Flashpoint & Method:	> 80°C (Cleveland Open Cup)	Firefighting Equipment:	A SCBA is recommended to limit exposures to combustion products when fighting any fire.
General Hazard:	Combustible solid. Avoid breathing fumes.		



Upper/Lower Flammable Limit: 6.0 / 0.7% (hydrocarbon mixture)

Auto-Ignition Temperature: NA

Combustion Products: Toxic gases produced in fire, such as CO, CO₂, and H₂S.

Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Section 6: ACCIDENTAL RELEASE MEASURES

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. For small spills, soak up released QPR® Liquid with inert absorbent material, remove with shovels and place spilled material into a container. Contain large spills with inert materials. Avoid using combustible absorbers such as sawdust. Transfer liquids and solid material to suitable containers for recovery or disposal. Do not allow spills and cleaning runoff to enter drains, sewers, groundwater, drainage ditches or surface waters. Wear appropriate protective equipment as described in Section 8.

Waste Disposal Method: Dispose of QPR® Liquid according to Federal, State, Provincial and Local regulations.

Section 7: HANDLING AND STORAGE

General: 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 source of ignition. Do not cut, drill, grind or weld on empty containers since they may contain explosive 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.

Usage: Avoid contact with skin, eyes and clothing. Do not breathe vapors, mists, or gases. Ensure adequate ventilation. Use normal precautions when handling hot liquid solutions. Do not breathe fumes or vapor from heated material. Do not allow hot material to contact skin. Use all appropriate Personal Protective Equipment (PPE) described in Section 8 below.

Storage Temperature: Store away from all ignition sources and open flames. Avoid freezing.

Clothing: Remove and launder clothing that is soiled. Thoroughly wash skin after exposure to QPR® Liquid.

Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering Controls: Use local exhaust or general dilution ventilation when using at elevated temperatures or during activities that generate vapors or mists, to maintain levels below exposure limits. Ensure that an emergency eye wash station and safety shower is located near the work area.

Personal Protective Equipment (PPE):

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 vapors above exposure limits.
Eye Protection:	Wear CSA/ANSI approved safety goggles or face shield when handling QPR® Liquid to prevent contact with eyes. Wearing contact lenses, when using QPR® Liquid, is not recommended.

Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION (continued)

Skin Protection:	Wear chemical resistant gloves (e.g. neoprene) to prevent skin contact and insulated gloves when handling hot material. Do not rely on barrier creams, in place of impervious gloves. Remove and launder clothing that is soiled with QPR® Liquid. Thoroughly wash hands and other exposed skin after exposure to QPR® Liquid.
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Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid	Evaporation Rate:	NA.
Appearance:	Black liquid	pH (in water):	NA.
Odor:	Slight petroleum odor	Boiling Point:	145 – 375° C.
Vapor Pressure:	NA.	Freezing Point:	NA.
Vapor Density:	NA.	Viscosity:	NA.
Specific Gravity:	0.96-0.98	Solubility in Water:	Insoluble

Section 10: STABILITY AND REACTIVITY

Stability:	Stable. Avoid contact with incompatible materials, excessive heat, sources of ignition and open flame.
Incompatibility:	QPR® Liquid is incompatible with strong acids or bases, and oxidizing agents such as nitrates, chlorates and peroxides.
Hazardous Polymerization:	None.
Hazardous Decomposition:	When heated may liberate hydrogen sulfide and various hydrocarbons.

Section 11 and 12: TOXICOLOGICAL AND ECOLOGICAL INFORMATION

For questions regarding toxicological and ecological information refer to contact information in Section 1.

Section 13: DISPOSAL CONSIDERATIONS

Dispose of waste and containers in compliance with applicable Federal, State, Provincial and Local regulations.

Section 14: TRANSPORT INFORMATION

This product is classified as a Hazardous Material under U.S. DOT or Canadian TDG regulations as Packaging Group III, UN 1999.

Section 15: REGULATORY INFORMATION

OSHA/MSHA Hazard This product is considered by OSHA/MSHA to be a hazardous chemical and should

- Communication:** be included in the employer's hazard communication program.
- CERCLA/SUPERFUND:** This product is not listed as a CERCLA hazardous substance.
- EPCRA SARA Title III:** This product has been reviewed according to the EPA Hazard Categories promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 and is considered to be an acute health hazard and a fire hazard.
- EPRCA SARA Section 313:** This product contains none of the substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Section 15: REGULATORY INFORMATION (continued)

- RCRA:** If discarded in its purchased form, this product would not be a hazardous waste either by listing or characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.
- TSCA:** This product and/or its components are listed on the Toxic Substances Control Act (TSCA) inventory.
- California Proposition 65:** This product and/or its components are not listed in California's Proposition 65.
- WHMIS/DSL:** This product and/or its components are listed on the Domestic Substance List. This product is classified as D2B: Irritant; and is subject to WHMIS requirements.



Section 16: OTHER INFORMATION

Abbreviations:

>	Greater than	MSHA	Mine Safety and Health Administration
ACGIH	American Conference of Governmental Industrial Hygienists	NA	Not Applicable
		NFPA	National Fire Protection Association
ANSI	American National Standards Institute	NIOSH	National Institute for Occupational Safety and Health
CAS No	Chemical Abstract Service number		
CBI	Confidential Business Information	NTP	National Toxicology Program
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act	OSHA	Occupational Safety and Health Administration
		PEL	Permissible Exposure Limit
CFR	Code for Federal Regulations	pH	Negative log of hydrogen ion
CL	Ceiling Limit	PPE	Personal Protective Equipment
CSA	Canadian Standards Association	R	Respirable Particulate
DOT	U.S. Department of Transportation	RCRA	Resource Conservation and Recovery Act
EST	Eastern Standard Time	SARA	Superfund Amendments and Reauthorization Act
HEPA	High-Efficiency Particulate Air		
HMIRC	Hazardous Materials Information Review Commission	SCBA	Self-Contained Breathing Apparatus
		T	Total Particulate
HMIS	Hazardous Materials Identification System	TDG	Transportation of Dangerous Goods
		TLV	Threshold Limit Value
IARC	International Agency for Research on Cancer	TWA	Time Weighted Average (8 hour)
LC ₅₀	Lethal Concentration	WHMIS	Workplace Hazardous Materials Information System
LD ₅₀	Lethal Dose		
mg/m ³	Milligrams per cubic meter		



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