LAKE ASPHALT

OF TRINIDAD AND TOBAGO (1978) LIMITED

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DATE: January 2009

MATERIAL SAFETY DATA SHEET

(M S D S)

1. Product Identification

Product Name: **60/70 Asphalt Cement**

Origin: Produced by blending refinery bitumen, a heavy oil residue from the refining of crude petroleum, with naturally occurring Trinidad Lake Asphalt.

Other Names: Trinidad Modified Asphalt (TMA), Trinidad Lake Asphalt Cement, Modified Asphalt, 60/70 Pen. Asphalt Cement.

Composition: Homogenous blend of 27-37% Trinidad Lake Asphalt and 63-73% Refinery Bitumen

Approximate Percentages of Components:

Bitumen Content	-	77 – 90%
Mineral Matter	-	7.5 – 19%
Water of Hydration of Minerals	-	1.2 – 1.6%
Other Organic matter	-	0.9 – 1.2%

2. Physical and Chemical Properties

Appearance: A semi-solid, brown to black material

Properties:

Penetration (25 ^{o}C)	- 60 - 70
Specific Gravity (25 ^{o}C)	- 1.10– 1.15g/cm^{3}
Softening Point (R & B)	- 45 – 50^{o}C

3. Fire Protection

Flash Point:	(ASTM D92) (COC) 232 ^{o}C (min)
Fire Point:	(ASTM D92) (COC) 280 ^{o}C (min)
Extinguishing Media	Foam, dry chemical or carbon dioxide used to fight fire. Do not use water, spitting may result.
Hazardous Products of Decomposition:	Thermal Oxidative decomposition can produce carbon dioxide, various aliphatic hydrocarbons and hydrogen sulphide. Inhalation of these gases in closed systems can produce tissue hypoxia (insufficient oxygen). Keep working area well ventilated.
Specific Fire Fighting Procedures:	Since fires may produce toxic fumes, always wear a self- contained breathing apparatus (SCBA). Wear suitable clothing for skin, face and eye protection when handling hot Asphalt Cement.

4. Potential Hazards and First Aid

High operational temperatures (160 – 170^{o}C) cause hot material and flames/heater to be the greatest hazards. Suitable protective clothing, boots and eye protection should be worn during handling and processing

First Aid:

Eyes – Gently lift eyelids and flush with copious amount of water until transported to a medical facility. Seek Physician immediately. Make emergency eye wash stations available.

Skin – Quickly remove contaminated clothing. Immerse skin in cool water until material hardens on skin. Seek immediate medical attention. Medically approved solvents may be used to remove Asphalt Cement from the skin.

Inhalation – Remove exposed persons to fresh air and support breathing with artificial respiration. Seek immediate attention.

Ingestion – Ingestion of cool Asphalt Cement is relatively non-toxic.

5. Physiological Data

Carcinogenicity: 60/70 Asphalt Cement is not listed as a carcinogen (OSHA or IARC).

No long term effects are experienced with normal or extended exposure.

Carcinogenic components may be found in bitumen (and asphalt as a whole), but oxidation of the polycyclic aromatic hydrocarbons destroys their carcinogenic potential.

Good hygiene practices should be employed when handling Asphalt Cements. Use soap, warm water and approved solvents for washing contaminated areas.