



# MATERIAL SAFETY DATA SHEET

**Supplier:** Moose Jaw Refinery  
641 Manitoba Street East  
Moose Jaw, SK S6H 6E3

**24 Hour Emergency Telephone Number:**  
**1-306-691-7800**

## 1. PRODUCT IDENTIFICATION

**POLYMER MODIFIED ASPHALT (PMA)**  
**PG58-34, PG64-28, PG64-34, PG70-28**

### Synonyms:

- Petroleum Hydrocarbon

WHMIS
Not Controlled
TDG
Not Regulated

**CANUTEC Emergency Transport (613) 996-6666**

### Description:

Asphalt Cements are used for paving applications.

## 2. HAZARDOUS INGREDIENTS

The following components are defined in accordance with sub-paragraph 13(a)(i) to (iv) or paragraph 14(a) of the Hazardous Product Act.

NAME	%	CAS#
Bitumens	97	8052-42-4
Sulphur	3	7704-34-9
Styrene-Butadiene-Styrene Block Copolymer	0-4	9003-55-8

CAUTION: During storage or transit of hot asphalt, toxic hydrogen sulphide (7783-06-4) may be generated.

## 3. TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State and Appearance / Odor:</b>	Hot black, highly viscous semi-solid with characteristic tarry odor; semi-solid at room temperature.
<b>Specific Gravity:</b>	
<b>Density:</b>	1.0 kg/L @ 15°C
<b>Vapor Pressure:</b>	nil @ 37.8°C
<b>Vapor Density:</b>	n/a @ 20°C

<b>Evaporation Rate:</b>	
<b>Boiling Point/Range:</b>	>470°C @ 1 atm
<b>Viscosity:</b>	>400 cSt @ 100°C
<b>pH:</b>	
<b>Solubility In Water:</b>	Insoluble
<b>Coeff. Of Water/Oil Dist:</b>	

## 4. TOXICOLOGICAL PROPERTIES

### ACUTE EFFECTS:

#### Inhalation:

Fumes from hot asphalt causes nausea, headache, dizziness.

#### Eye Contact:

Hot asphalt burns eyes.

#### Skin Contact:

Hot asphalt burns skin.

#### Ingestion:

Ingestion is unlikely.

### CHRONIC EFFECTS:

#### Skin Effects:

Prolonged or repeated skin contact may cause dermatitis.

#### Inhalation:

Asphalt fumes contain substances that are known to cause cancer in humans.

### Toxicity Data:

IARC states that there is inadequate evidence that bitumens alone are carcinogenic to humans.

### Occupational Exposure Limits (OELs) Recommended:

<b>ACGIH: (TLV)</b>	Asphalt (mist)
	0.5 mg/m <sup>3</sup> (twa)

## 5. FIRST AID MEASURES

### Inhalation:

Evacuate to fresh air. Apply cardio-pulmonary resuscitation if required. Physician assessment mandatory.

### Eye Contact:

Copious warm water flush – 15 minutes. Physician assessment necessary if eyes inflamed. Cleanse soiling with olive oil.

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## Skin Contact:

For hot asphalt splash, cool part by water immersion or shower. Do not attempt removal of asphalt but split longitudinally if splash is circumferential to avoid tourniquet effect. For skin soiling without underlying burn, cleanse with mineral oil followed by soap and water. Use olive oil in vicinity of eyes.

## Ingestion:

Not applicable.

## Emergency Procedures:

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 provides a sterile covering over a burnt area. As healing takes place, the bitumen plaque will detach itself, usually after a few days. If solvent treatment is used, it should be followed by washing with soap and water, then the application of a proprietary refatting agent or skin cleansing cream. Only medically approved solvents may be used to remove bitumen from burns, as other solvents could cause further skin damage.

## 6. PREVENTATIVE AND CORRECTIVE MEASURES

### Special Protection Information:

For normal outdoor applications, special ventilation is not necessary. For indoor or confined space applications local exhaust, if necessary, to maintain allowable limits of asphalt fumes (0.5 mg.m<sup>3</sup>) and hydrogen sulphide (10 ppm). Respiratory protection normally not needed. If hydrogen sulphide concentration exceeds 10 ppm or asphalt fumes exceed 0.5 mg/m<sup>3</sup>, wear self-contained or air-supplied breathing apparatus. Chemical splash goggles and insulated gloves for handling hot asphalt (loose gauntlet style) should be worn. Long sleeve shirt, cuffless pants, loose clothing and face shield must be worn if handling hot asphalt.

### Spill Control and Disposal:

For all spills, allow to cool and solidify. Break up and recover. Scoop up into drums.

### Handling and Storage:

For outdoor use, remain upwind of asphalt when possible. AVOID SKIN and EYE CONTACT. During storage or transit of hot asphalt, hydrogen sulphide may accumulate in enclosed spaces such as tank cars. Open tank car hatches with caution. AVOID INHALATION. Maintain same precautions when gauging and sampling.

### Waste Disposal Method:

Dispose in approved landfill site or licensed waste reclaimer facility.

## 7. FIRE AND EXPLOSION HAZARD

<b>Flash-Point (Method = COC):</b>	230°C (minimum, dependent on grade)
<b>Auto-Ignition:</b>	370-480°C (approx)
<b>Flammable Limits in Air (% by volume):</b>	unknown

### General Hazards:

Addition of water or foam may cause frothing. Flammable gas emitted on heating.

### Fire Fighting:

Use water spray to cool fire-exposed containers and as a protective screen. Do not point solid water stream directly into burning oil to avoid spreading. Self-contained breathing apparatus should be worn to protect against possible release of hydrogen sulphide and sulphur dioxide if product is burning. Extinguishing media: water spray, dry chemical, carbon dioxide for small fires.

## 8. REACTIVITY DATA

### Stability:

This material is stable.

### Incompatible Materials and Conditions to Avoid:

Avoid strong acids, alkalis, oxidizing agents (chlorine, oxygen). Avoid excessive heat approaching flash point.

### Hazardous Decomposition Products:

CO<sub>x</sub>, NO<sub>x</sub>, SO<sub>x</sub>, hydrogen sulfide and dense smoke on combustion.

## 9. PREPARATION

<b>Prepared by:</b>	Moose Jaw Refinery (306) 691-7800
<b>Date:</b>	May 2011
<b>Expires:</b>	May 2014

## CAUTION

Moose Jaw Refinery assumes no responsibility for injury to anyone caused by the product if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, Moose Jaw Refinery assumes no responsibility for injury to anyone caused by abnormal use of the product even if reasonable safety procedures are followed. Furthermore, vendee and third persons assume the risk in their use of the product.