

MATERIALS SAFETY DATA SHEET

SECTION 1 - PRODUCT INFORMATION

Trade Name: Hot mix asphalt
Producer's Name: Dutra Materials
Address: 1000 Point San Pedro Road, San Rafael, CA 94901
Phone Number: (415) 459-7740
Date Prepared: March 2002
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SECTION 2 - HAZARDOUS INGREDIENTS

Chemical Names	CAS Number	Quantity (Percent)	Formula	ACGIH TLV ⁽¹⁾	OSHA PEL ⁽²⁾
Petroleum Distillate	88955-27-1	<5	various	100 ppm	none
Hydrogen Sulfide	7783-06-4	<1	H ₂ S	10 ppm	20 ppm
Crystalline Silica (aggregate)	14808-60-7	Approx. 10	SiO ₂	0.1 mg/m ³	10/(%SiO ₂ +2)mg/m ³

⁽¹⁾ ACGIH TLV: American Conference of Industrial Hygienists Threshold Limit Value (TLV) time-weighted average (TWA)

⁽²⁾ OSHA PEL: Occupational Safety and Health Administration Permissible Exposure Limit (PEL) for an 8-hour time weighted average

SECTION 3 - HAZARD IDENTIFICATION

Overview:

Hot asphalt concrete contains aggregates bound by petroleum-hydrocarbon oil (asphalt). When hot, it may burn skin and emits fumes containing hydrogen sulfide (discussed below). This product may also contain crumb rubber (tires and natural rubber). For information on these products, contact Dutra Materials or the manufacturer.

Potential Health Effects

Route of Entry

- Inhalation: Yes
- Skin: Yes
- Ingestion: Yes

Acute and Chronic Effects: Heated material may cause thermal burns or rash. When cold, no effects expected. Single short-term exposures can cause skin

irritation with prolonged or repeated exposure. Inhalation: Vapors containing hydrogen sulfide may accumulate during storage or transport.

Signs/symptoms of Overexposure: Irritation to eyes, skin and lungs after repeated exposure.

Eyes/skin: Permanent damage, rash, thermal burns.

SECTION 4 - FIRST AID MEASURES

Eye contact: Immediately flush with plenty of water for at least 15 minutes. Get immediate medical attention.

Skin contact: Immediately flush with cool water for at least 15 minutes. Clean skin with waterless hand cleaner. Seek medical aid if irritation develops or persists.

Inhalation: Remove from exposure. Seek medical aid if respiratory difficulty develops or persists.

Ingestion: Seek medical aid. Do not induce vomiting.

SECTION 5 - FIRE AND EXPLOSION

Flash Point: 500+ degrees F (closed cup method)

Extinguishing Media: Agents approved for Class B fires (e.g., CO₂, dry chemical, foam, water fog).

Special Fire Fighting Procedures: Use NIOSH/MSHA approved SCBA and full protective equipment.

Unusual Fire/Explosion Hazard: Do not heat above flash point. Hot asphalt oil may ignite flammable mixtures on contact. Sulfur oxides and hydrogen sulfide, both of which are toxic, may be released upon combustion. Hydrogen sulfide vapors are heavier than air and may accumulate in low areas and travel along the ground to a remote ignition source; if ignited will flash back to original container.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Spill Response Procedures: Recover spilled material and reuse.

Preparing Waste for Disposal: Disposal must be in accordance with applicable federal, state, and local regulations. Enclosed-controlled incineration is recommended, depending on jurisdiction.

SECTION 7 - HANDLING AND STORAGE

Respiratory Protection: None needed at ambient temperatures. If high vapor concentrations are experienced (TLV is exceeded), use NIOSH/MSHA approved supplied-air respirator.

Eye Protection: Safety glasses with side shields should worn at all times.

Gloves: Nitrobutyl rubber or neoprene.

Other Clothing: Long sleeves.

Work Practices: Do not smoke.

Hygiene Practices: Wash exposed skin with soap and water.

Other Handling Requirements: No special measures required.

Protective Measures During Maintenance of Contaminated Equipment: No special measures required.

Storage: Keep adequate ventilation in outside storage. Hydrogen sulfide gas may accumulate in storage tanks and bulk transport compartments containing asphalt oil.

SECTION 8 - PHYSICAL PROPERTIES

Vapor density (air=1):	Negligible	Melting Point:	N/A
Specific Gravity:	2.00-2.55	Boiling Point:	N/A
Solubility in water:	Negligible < 0.1%	Evaporation Rate:	Negligible
Vapor pressure:	N/A		
Appearance and Odor:	Black semi-solid mixture, Asphalt odor		

SECTION 9 - STABILITY AND REACTIVITY

Reactivity: Material is stable and will not polymerize. May react with strong oxidizing agents such as chlorates, nitrates, and peroxides. At room temperature, hydrogen sulfide may be given off.

Materials/Conditions to Avoid: High temperature heating.

Hazardous Decomposition Products: Heating this material may produce hydrogen sulfide.

SECTION 10 - TOXICOLOGICAL INFORMATION

Hot mix asphalt (HMA) is a mixture of aggregates (sand and gravel) and liquid asphalt cement. The aggregates contain crystalline silica, which is a naturally occurring mineral found in soil and rock formations. Should the mixture release dust, it is possible that the dust may contain small amounts of crystalline silica. Chronic or ordinary silicosis is the most common form of silicosis, which may occur after many years of exposure to relatively low levels of airborne respirable dust.

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