



Material Information Bulletin

(Approved - "Essentially Similar" to Form OSHA 20, Material Safety Data Sheet)

ROOFING ASPHALT ASTM D-312, TYPE III

PLAINTIFF'S EXHIBIT

BIR-1143

CMS 291142

CAUTION! HOT ASPHALT MAY EMIT TOXIC HYDROGEN SULFIDE GAS (H_2S)
PROLONGED OR REPEATED CONTACT WITH SKIN CAN BE HARMFUL.
KEEP OUT OF REACH OF CHILDREN

TYPICAL COMPOSITION

Petroleum Asphalt

100%

EXPOSURE STANDARD

The Threshold Limit Value (TLV) (1981) for petroleum asphalt fumes is 5 mg/m^3 (milligrams of material per cubic meter of air) for a daily 8-hour exposure. There is no OSHA exposure standard. The OSHA exposure standard for H_2S is 20 ppm (a ceiling value). The TLV is 10 ppm.

PHYSIOLOGICAL & HEALTH EFFECTS

The cool solid material is not expected to cause eye irritation. Thermal burns may result from contact with hot material.

The cool solid material is not expected to cause skin irritation. Thermal burns may result from contact with hot material. See Additional Health Data.

Fumes from the hot material can be unpleasant and may produce nausea and irritation of the upper respiratory tract. Breathing H_2S may also be hazardous. See Additional Health Data.

EMERGENCY & FIRST AID PROCEDURES

Eyes

If the hot material should splash into the eyes, wash eyes immediately with fresh water and see a doctor.

Skin

If the hot, melted material gets on skin, quickly cool in water. See a doctor for extensive burns. DO NOT use solvents or thinners to remove material from skin. It can be removed with vegetable oil or mineral oil.

Inhalation

If respiratory discomfort or irritation occur, move the person to fresh air. If breathing has stopped, apply artificial respiration. See a doctor immediately.

Ingestion

~~Not expected to be acutely toxic by ingestion.~~

~~Since this material is not expected to be an acute ingestion problem, no first aid procedures are required.~~

ADDITIONAL HEALTH DATA

See Page 3.

SPECIAL PROTECTIVE INFORMATION

Eye Protection: Avoid eye contact with the hot material by wearing chemical safety goggles.

Skin Protection: Avoid skin contact with the hot material by wearing protective clothing including gloves.

Respiratory Protection: If operating conditions create airborne concentrations which exceed the exposure standard, the use of an approved respirator or air-supplied breathing equipment is recommended.

Ventilation: Use adequate ventilation to keep the airborne concentrations of this material below the exposure standard.

Other: If eye or skin contact can occur, washing facilities for eyes and skin should be available nearby.

FIRE PROTECTION

Flash Point: (COC) 450°F (Min.)

Autoignition Temp.: NDA

Flammability Limits: n/a

Extinguishing Media: CO₂, Dry Chemical, Foam, Water Spray

Special Fire Fighting Procedures: For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus. See Hazardous Decomposition Products. Read the entire bulletin.

SPECIAL PRECAUTIONS

READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.

DO NOT weld, heat or drill container. Replace cap or bung. Emptied container still contains hazardous material which may ignite with explosive violence if heated sufficiently.

CAUTION! Do not use pressure to empty drum or explosion may result.

ENVIRONMENTAL PROTECTION

Environmental Impact: This material is not expected to present any environmental problems.

Precautions if Material is Released or Spilled: If liquid material is spilled, allow it to cool and solidify before proceeding with disposal methods. Clean up spills as soon as possible, observing precautions in Special Protective Information and on product label.

Waste Disposal Methods: Place contaminated materials in disposable containers and bury in an approved dumping area.

REACTIVITY DATA

Stability (Thermal, Light, etc.): Stable.

Incompatibility (Materials to Avoid): May react with strong oxidizing materials.

Hazardous Decomposition Products: Normal combustion forms carbon dioxide and water vapor; and may produce oxides of sulfur and nitrogen; incomplete combustion can produce carbon monoxide.

Hazardous Polymerization: Will not occur.

PHYSICAL PROPERTIES

Solubility: Soluble in most halogenated hydrocarbons and benzene; insoluble in water and alcohols.

Appearance (Color, Odor, etc.): Odorless black semi-solid.

Initial Boiling Point: 750°F (Minimum)

Softening Point: 185-205°F

Specific Gravity: 1.00-1.05 @ 15.6/15.6°C

Vapor Pressure (mm Hg & Temp.): n/a

Vapor Density (Air = 1): n/a

Percent Volatile (Volume %): n/a

Evaporation (= 1): n/a

Viscosity: 300-1200 cSt @ 350°F

n/a = Not Applicable

NDA = No Data Available

The above information is based on data of which we are aware and is believed to be correct as of the date hereof. Since the information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

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ADDITIONAL HEALTH DATA

No association has been established between industrial exposure to petroleum asphalt and cancer in humans. Asphalts contain small amounts of polynuclear aromatic hydrocarbons (PNA's) which, when concentrated, have been shown to cause skin cancer in mice after prolonged and frequent contact. Studies in which mice were exposed to a variety of whole asphalts did not result in any increased cancer rate. Brief or intermittent skin contact with this asphalt product is not expected to produce any serious effects. While normal handling of this product is not likely to cause cancer in humans, skin contact and breathing of dusts, fumes or vapors should be reduced to a minimum. We strongly recommend that the precautions outlined in Section 1 be followed when handling this material.

Some asphalts contain sulfur which may form H_2S when heated. The odor of H_2S is unreliable as an indicator of concentration because it is entirely masked by the odor of the asphalt fumes. Signs and symptoms of overexposure to H_2S include respiratory tract irritation, headaches, dizziness, nausea, gastrointestinal disturbances, coughing, a sensation of dryness and pain in the nose, throat and chest, confusion and unconsciousness. H_2S concentrations of 1000-2000 ppm can be extremely hazardous. Death has occurred following exposure to 600 ppm. See Chevron Material Information Bulletin No. 301 for more information regarding hydrogen sulfide.