Material Safety Data Sheet
Roofing Asphalt (All Grades)
Hot Stuff Asphalt lc

24 Hour Emergency Assistance:
Hot Stuff Asphalt (801) 298-9866 ext.245, or 248
mobile (801) 209-6952

Material Identification
Api Definition: A complex black solid obtained by blowing air through a heated residuum or raffinate from a deasphalting process with or without a catalyst. The process is principally one of oxidative condensation which increases the molecular weight.

Synonyms: Bitumen; petroleum tar; paving asphalt; hydrocarbon mixture.
Chemical Family: Mixture of paraffinic, aromatic, and napthenic hydrocarbons.
Chemical formula: Hydrocarbon mixture.
CAS number: 64742 93-4 [oxidized asphalt, including catalytic]

NFPA Hazard Rating
Health 0
Flammability 0
Reactivity 1
Special hazards none

Chemical Composition
Components CAS # Percent Exposure Limits Source
Asphalt 6474293-4 100% NE 5Mg/M3*

Emergency First Aid
Eye contact: When handling hot product use goggles or face shield.
Skin contact: Hot product can cause severe burns; chronic skin irritant. Cool asphalt with water or ice and contact medical help.
Inhalation: When product is hot use chemical absorber type; use oxygen supply to enter storage tank.
Ingestion: It is highly unlikely that the hot product would be ingested; however, should the product somehow be swallowed, do not induce vomiting, drink water and milk, contact physician.
Fire Protection Information

Flammable limits (% in air):
Not pertinent

Auto ignition temperature (°F):
Not pertinent

Flash point temperature (°F) (method):
540 °F

Products evolved when subject to heat of combustion:
Carbon monoxide and carbon dioxide can cause asphyxiation

Recommended fire extinguishing agents and special properties:
Use NIOSH/MSHA approved self-contained breathing apparatus and other protective equipment

Unusual fire or explosion hazards:
Carbon oxides, hydrogen sulfide and various hydrocarbons may be released when heated or burned.

Precautions
Danger! Hot asphalt can cause severe thermal burns; use water to cool the burned area; immediately contact a physician; let the physician remove the product. Skin: irritating; remove contaminated clothing, flush with water; follow above suggestions for burns. Eyes: flush with water; contact physician. Ingestion: it is highly unlikely that the hot product would be ingested; however, should the product somehow be swallowed, do not induce vomiting, drink water and milk, contact physician.

Requirements For Transportation, Handling And Storage
Transport, handle and store in accordance with OSHA regulation 1910. 106, and applicable d.o.t. regulations. Standard above ground; usually stored hot. Maintain below TLV.

DOT proper shipping name: Asphalt
DOT hazard class (if applicable): O RM-C (when shipping by water), UN 3257

Personal Protection Information
Eye: When handling hot product use goggles or face shield
Skin: Gloves: impervious nitrile rubber. Protect all exposed areas from contact with the hot product.
Respiratory: When product is hot use chemical absorber type; use oxygen supply to enter storage tank.
Ventilation: Presently there is no federal standard for asphalt in workroom air, nor has a standard been proposed. The hot product should not be used in an enclosed area unless an oxygen supply is available. Maintain below TLV.
Acute Physiological Effects Of Exposure

Eye contact: Fumes may be moderately irritating. Prolonged or repeated contact may cause hyperpigmentation of the eye tissue. Direct contact with hot asphalt can cause thermal burns.

Skin contact: There is information regarding evidence that asphalt left on the skin of laboratory animals for long periods can cause local tumors; but there have been no reports of such effects on human skin that can be attributed to asphalt alone. Fumes, however, may be moderately irritating to the skin. Fumes may cause dermatitis, acne-like eruptions, hyperpigmentation, and photosensitization.

Skin absorption: Chronic irritation.

Inhalation: This is the route of greatest concern. The principal adverse effects of over exposure to asphalt fumes are irritation of the mucous membranes that line the inner surface of the eyeball; and irritation of the mucous membranes lining the respiratory tract. Prolonged exposure may cause headache, dizziness, drowsiness, nausea, vomiting, and muscle weakness.

Ingestion: May cause gastrointestinal irritation or blockage.

Chronic Physiological Effects Of Exposure

In laboratory experiments, both whole asphalts and condensed asphalt fume diluted with hydrocarbon solvents, produced equivocal results concerning their potential carcinogenicity when repeatedly applied to the skin of mice.

Aggravated Medical Conditions

The small quantities of polynuclear aromatics (pnas) found in asphalt have not been shown to be a human health risk. Health surveys and human experience indicate no cases of lung or skin cancer resulting from asphalt exposure.

Certain isoparaffins may be present which have been reported to cause kidney injury in male rats only. No comparable health hazard for kidney disease is known to occur in humans.

Chemical And Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling point range (deg. °F)</td>
<td>Boiling point range (deg. °F): 10% point is above 600 °F</td>
</tr>
<tr>
<td>Specific gravity (H2O = 1)</td>
<td>1.01-1.02</td>
</tr>
<tr>
<td>Vapor density (air = 1)</td>
<td>&gt;1</td>
</tr>
<tr>
<td>Appearance and odor</td>
<td>Dark brown to black liquid. Odor is characteristic; from kerosene to tar. Liquid when hot, solid at room temperature.</td>
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<tr>
<td>Solubility in water</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Percent volatile by volume</td>
<td>100% volatile</td>
</tr>
<tr>
<td>(at 700 °f)</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure (MM HG)</td>
<td>Not pertinent</td>
</tr>
<tr>
<td>Hazardous polymerization</td>
<td>Not likely</td>
</tr>
<tr>
<td>Static charge hazard</td>
<td>Not likely</td>
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</table>

Environmental Protection

Waste disposal method: Recover and recycle as much of the product as possible. Dispose of balance according to current federal, state, and local regulations. In many areas, asphalt can be mixed with aggregate, soil, etc., and disposed of in landfills.

Procedures in case of breakage or leakage: (Transportation spills call Chemtrec (800) 424-9300) Stop discharge; isolate mechanically (sand dikes, etc.) If possible. Product will solidify upon cooling. Avoid directing the spill into water-ways. Handle all leaks, spills, and waste materials in accordance with all applicable local, state, and federal regulations.
Issue date: February 25, 2009
Previous date: February 20, 2009

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Key
TLV  Threshold Limit Value
Mg/M3  Milligrams/Cubic Meter
STEL  Short Term Exposure Limit
PEL  Permissible Exposure Limit
PPM  Parts Per Million
AIHA  American Industrial Hygiene Association
TWA  Time Weighted Average
DOT  Department Of Transportation
LD  Lethal Dose
ND  Not Determined
LC  Lethal Concentration
NA  Not Applicable
OSHA  Occupational Safety And Health Administration
CAS  Chemical Abstract Service Number
NIOSH  National Institute For Occupational Safety And Health
SCBA  Self-Contained Breathing Apparatus

Manufacturer Contact Data
Firm: Hot Stuff Asphalt Ic
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