

MATERIAL SAFETY DATA SHEET

Jagoe-Public Company
3020 Ft. Worth Dr.
Denton, TX 76205

Date Prepared: 11/28/2001

RAP (RECLAIMED ASPHALT PAVEMENT)

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity

Product Name: RECLAIMED ASPHALT PAVEMENT (RAP)

General or Generic ID: RAP, MILLINGS

Company
Jagoe-Public

Emergency Telephone Number:
911

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by weight)
AGGREGATE (crushed stone, sand, gravel, slag)		>90
ASPHALT	8052-42-4	<10
QUARTZ	14808-60-7	>1

Composition of aggregate varies; typically contains quartz (crystalline silica), the content of which may exceed one percent. RAP may contain contaminants such as heavy metals, hydrocarbons, and various asphalt additives.

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye

Dust can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

Skin

May cause skin irritation. Symptoms may include redness, burning, and swelling of skin. This material is unlikely to pass into the body through the skin.

Swallowing

This material is not likely to be swallowed.

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Inhalation

Removal of hardened asphalt concrete, or other types of asphalt recycling work can produce dust. Dust may irritate the nose, throat, and airways, and may cause coughing, sneezing, and shortness of breath. Prolonged or repeated breathing of quartz-containing dust may result in progressive and permanent lung disease (silicosis) which may cause death from respiratory and/or heart failure. Symptoms include coughing and difficult breathing which becomes worse with physical activity. Symptoms usually occur at air concentrations higher than the recommended exposure limits (See Section 8).

Target Organ Effects

Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: respiratory tract damage (from breathing aerosol or smoke from heated asphalt).

Developmental Information

No data

Cancer Information

Asphalt is not listed as a carcinogen by the International Agency for Research on Cancer, the National Toxicology Program, or the Occupational Safety and Health Administration. Extracts from certain types of asphalt and some undiluted asphalts have been shown to cause skin cancer in laboratory animals following repeated exposure without washing or removal. The relevance of this to humans with exposure to hot asphalt fume is uncertain. The International Agency for Research on Cancer (IARC) and the National Toxicology Program have determined that there is sufficient evidence in humans for the carcinogenicity of inhaled crystalline silica in the form of quartz or cristobalite. In addition, IARC has determined that there is sufficient evidence for the carcinogenicity of quartz and cristobalite in experimental animals. Among individuals with silicosis, lung cancer occurs more frequently in those who smoke.

Other Health Effects

There is some evidence that breathing respirable crystalline silica or the disease silicosis is associated with an increased incidence of significant disease endpoints such as scleroderma (an immune system disorder manifested by fibrosis of the lungs, skin and other internal organs) and kidney disease. Hot asphalt may release hydrogen sulfide gas and other irritating vapors. Breathing hydrogen sulfide gas may cause nervousness, excitement, dizziness, drowsiness, headache, difficulty walking, and fluid buildup in the lung tissue. At concentrations above 1000 ppm, it may cause rapid collapse and death due to suffocation. While hydrogen sulfide gas has a rotten egg smell at low concentrations, the gas deadens the sense of smell at concentrations above 150 ppm. Therefore odor may not be a good warning of hydrogen sulfide exposure.

Primary Route(s) of Exposure

Inhalation, Skin contact, Eye contact.

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4. FIRST AID MEASURES

Eyes

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Skin

Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

Swallowing

First aid is not normally required. If swallowed, seek medical attention.

Inhalation

If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Note to Physicians

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: respiratory tract, skin, lung (for example, asthma-like conditions). Silicosis predisposes the individual to the development of tuberculosis. This is most likely to occur after the age of 50 and in association with moderate to severe silicosis.

5. FIRE FIGHTING MEASURES

Flash Point

No data

Explosive Limit

No data

Autoignition Temperature

No data

Hazardous Products of Combustion

May form: carbon dioxide and carbon monoxide, amines, ammonia, nitrogen dioxide, hydrogen sulfide, sulfur oxides, ozone, various hydrocarbons. Hazardous vapors may collect in areas that are not properly ventilated.

Fire and Explosion Hazards

Keep away from ignition sources.

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Extinguishing Media

Agents approved for class B hazards (regular foam, carbon dioxide, dry chemical, halogenated agents, steam) and water fog. Do not apply direct water stream.

Fire Fighting Instructions

Wear a self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment.

NFPA Rating

Not determined

6. ACCIDENTAL RELEASE MEASURES

Small Spill

This material is a solid or a semi-solid, and is not likely to spill or flow.

Large Spill

This material is a solid or a semi-solid, and is not likely to spill or flow.

7. HANDLING AND STORAGE

Handling

Minimize dust exposure. Use wet methods to reduce dust exposure.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection

Wear safety glasses in compliance with OSHA regulations. (Consult your safety representative.)

Skin Protection

Wear normal work clothing covering arms and legs. If manual handling of material occurs, wear gloves to protect skin from cuts and scrapes.

Respiratory Protections

If overexposure occurs, a NIOSH/MSHA approved respirator with a particulate filter is advised in absence of proper engineering control.

Engineering Controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

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Exposure Guidelines

Component

AGGREGATE

No exposure limits established

ASPHALT (8052-42-4)

ACGIH TLV 0.500 mg/m³ - TWA

QUARTZ (14808-60-7)

OSHA VPEL 0.100 mg/m³ - TWA respirable dust

ACGIH TLV 0.050 mg/m³ - TWA (this TLV is for the respirable fraction of dust)

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point

Not applicable

Vapor Pressure

No data

Vapor Density In Air (Air = 1)

>1

Specific Gravity

2.0 – 2.7

Percent Volatiles

< 1.0 percent

Evaporation Rate

No data

Appearance

BLACK/BROWN PARTICULATE SOLID

Odor

PETROLEUM-LIKE

pH

No data

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10. STABILITY AND REACTIVITY

Hazardous Polymerization

Product will not undergo hazardous polymerization.

Hazardous Decomposition

May form: carbon dioxide and carbon monoxide, amines, ammonia, nitrogen dioxide, hydrogen sulfide, sulfur oxides, ozone, various hydrocarbons. Hazardous vapors may collect in areas that are not properly ventilated.

Chemical Stability

Stable.

Incompatibility

Avoid contact with: strong oxidizing agents, fluorine.

11. TOXICOLOGICAL INFORMATION

No data

12. ECOLOGICAL INFORMATION

No data

13. DISPOSAL CONSIDERATION

Waste Management Information

Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution Company, IC&S Environmental Services Group at 800-637-7922.

14. TRANSPORT INFORMATION

DOT Information - 49 CFR 172.101

DOT Description:
NON-REGULATED BY D.O.T.

RQ (Reportable Quantity) - 49 CFR 172.101

Not applicable

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15. REGULATORY INFORMATION

US Federal Regulations

CERCLA RQ - 40 CFR 302.4(a)

None listed

Section 311/312 Hazard Class - 40 CFR 370.2

Immediate(X) Delayed(X) Fire() Reactive() Sudden Release of Pressure()

SARA 313 Components - 40 CFR 372.65

None

OSHA Process Safety Management 29 CFR 1910

None listed

EPA Accidental Release Prevention 40 CFR 68

None listed

International Regulations

Inventory Status

Not determined

16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

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