

# MATERIAL SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### *Product Identification*

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Product Name: Hot Mix Asphalt  
Synonyms: Asphalt concrete  
CAS Number: Blend

### *Company Identification*

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Reed & Graham, Inc.  
690 Sunol Street  
San Jose, CA 95126 USA  
408-287-1400 (For product information)  
1-800-424-9300 CHEMTREC (for emergencies)

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

### **COMPONENT LISTING:**

Chemical Name -----	Amount -----	CAS Number -----
ASPHALT (PETROLEUM)	3.0 - 7.0 %	8052-42-4
QUARTZ (SIO <sub>2</sub> )	0.0 - 90.0 %	14808-60-7
HYDROGEN SULFIDE (H <sub>2</sub> S)	< 0.1 %	7783-06-4
SILICON DIOXIDE (AMORPHOUS)	0.0 - 90.0 %	7631-86-9
LIMESTONE	0.0 - 60.0 %	1317-65-3
MAGNESIUM CARBONATE	0.0 - 30.0 %	546-93-0
MICA	0.0 - 10.0 %	12001-26-2
FELDSPAR-GROUP MINERALS	0.0 - 10.0 %	68476-25-5
IRON OXIDE	0.0 - 10.0 %	1309-37-1

(See Section 8 for exposure guidelines)  
(See Section 15 for regulatory information)

**COMPOSITION COMMENT:**

Concentration values are typical and may vary.

Hydrogen sulfide may be present as a by-product of asphalt processing.

**HAZARDS DISCLOSURE**

This product contains hazardous materials as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200.

As defined under Sara 311 and 312, this product contains materials that are acute hazards.

**MISCELLANEOUS:**

This material does not have established exposure limits.

**3. HAZARDS IDENTIFICATION**

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***** EMERGENCY OVERVIEW *****
*
*                               CAUTION                               *
*
*                               For hot product, immediately immerse in or flush
*                               the affected area with large amounts of cold water
*                               to dissipate heat. Fumes from heated material may
*                               be irritating to eyes and respiratory tract.
*
*****
```

HMIS Rating –

Health: 1  
Flammability: 0  
Reactivity: 0  
Personal Protection Index: 1

NFPA Rating –

Health: 1  
Flammability: 0  
Reactivity: 0

## **POTENTIAL HEALTH EFFECTS**

### **EYE:**

Fumes may cause eye irritation. Contact with hot product may produce severe burns to eye.

### **SKIN:**

Contact with product at elevated temperatures can result in thermal burns. Frequent or prolonged contact with cool material may irritate the skin and cause a skin rash (dermatitis).

### **INHALATION:**

Prolonged or excessive inhalation of fumes from hot material may cause respiratory tract irritation, dizziness, and nausea.

Hydrogen sulfide can cause respiratory paralysis and death depending on the concentration and duration of exposure.

### **INGESTION:**

Ingestion is not considered a potential route of exposure. Ingestion of large amounts of cold product may cause intestinal distress. Essentially non-toxic.

## **SIGNS AND SYMPTOMS OF EXPOSURE:**

Exposure to hot material may cause thermal burns. Vapors from hot material may have an offensive odor which may cause headaches, nausea, and vomiting. Symptoms of overexposure include: fatigue, tearing of eyes, burning sensation in the throat, cough, chest discomfort and skin irritation.

## **CHRONIC EFFECTS:**

No known hazards in normal industrial use.

## **CARCINOGENICITY INFORMATION:**

IARC has determined that there is inadequate evidence that asphalts are carcinogenic to humans. While brief or intermittent skin contact with this product is not expected to cause harm, those workers who do not practice good personal hygiene and who are exposed repeatedly via skin contact may be at risk.

Suspect cancer hazard (contains material which) may cause cancer: IARC has classified crystalline silica as a known human carcinogen. Procedures such as saw cutting or grinding which expose uncoated aggregate may produce significant exposure to crystalline silica.

## **MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:**

Disorders of the kidney, liver, skin and respiratory system.

## 4. FIRST AID MEASURES

### ***EYE CONTACT FIRST AID:***

Burns due to contact with heated material require immediate medical attention. Hold eyelids apart and flush eyes with plenty of cold water for at least 15 minutes. Get medical attention if irritation develops or persists.

### ***SKIN CONTACT FIRST AID:***

For hot product, immediately immerse in or flush the affected area with large amounts of cold water to dissipate heat. For hot material exposure, DO NOT try to remove solidified material from the skin. DO NOT try to dissolve with solvents or thinners. Get medical attention immediately.

For exposure to cold material, wash skin with soap and water. Wear protective gloves to minimize skin contamination.

### ***INHALATION FIRST AID:***

At elevated temperatures may cause irritation of the eyes and respiratory tract. Although this product is not known to cause respiratory problems, if breathing is difficult, safely remove victim to fresh air and provide oxygen. Get immediate medical attention.

### ***INGESTION FIRST AID:***

Ingestion is not considered a potential route of exposure. If vomiting should occur spontaneously, keep airway clear. Contact a physician.

### ***STATEMENT OF PRACTICAL TREATMENT:***

Cool exposed area with water to dissipate heat. Get prompt medical attention. No attempt should be made to remove firmly adhering asphaltic material. Only medically approved solvents may be used to remove material from burns, as other solvents could cause further damage.

## 5. FIRE FIGHTING MEASURES

### ***FLAMMABLE PROPERTIES***

COC Flash Point: >235 C (> 455.0 F)

Autoignition Temperature: N/A

### ***FLAMMABLE LIMITS IN AIR***

LEL: N/A

UEL: N/A

**FLAMMABLE PROPERTIES:**

Product contains heavy oil (asphalt), will not burn unless preheated.

**EXTINGUISHING MEDIA:**

Carbon dioxide, foam, or dry powder. Do not use water because of violent reaction with hot asphalt. Use water spray to cool fire exposed containers. Exercise care when using water as contact with hot asphalt products may produce steam and violent foaming.

**FIRE & EXPLOSION HAZARDS:**

Can release vapors that form explosive mixtures at temperatures at or above the flash point.

**FIRE FIGHTING INSTRUCTIONS:**

As in any fire, wear self-contained breathing apparatus pressure-demand MSHA/NIOSH (approved or equivalent) and full protective gear. Decomposition may produce fumes, smoke, oxides of sulfur, carbon and hydrocarbons, and possible small quantities of hydrogen sulfide.

**COMBUSTION PRODUCTS:**

Avoid breathing vapors from heated material. Combustion may produce CO, NOx, SOx and reactive hydrocarbons.

## **6. ACCIDENTAL RELEASE MEASURES**

**SAFEGUARDS (PERSONNEL):**

Observe precautions in Protective Equipment section.

**INITIAL CONTAINMENT:**

Contain spilled material. Allow material to solidify, and scrape up.

**LARGE SPILLS PROCEDURE:**

Allow material to solidify, and scrape up.

**SMALL SPILLS PROCEDURE:**

Allow material to solidify, and scrape up.

## 7. HANDLING AND STORAGE

### **HANDLING (PERSONNEL):**

When sampling containers use appropriate personal protective equipment. Do not enter storage area unless adequately ventilated. Avoid breathing vapors from heated material. Avoid contact with eyes, skin, and clothing. Breathing hydrogen sulfide must be avoided.

### **HANDLING (PHYSICAL ASPECTS):**

When handling hot material, use protective clothing impervious to this material.

### **STORAGE PRECAUTIONS:**

Do not store at temperatures above 165°C. When asphaltic products are heated, they may give off small amounts of hydrogen sulfide which may accumulate in the head space of storage containers. Use adequate ventilation.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### **ENGINEERING CONTROLS:**

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

### **EYE / FACE PROTECTION REQUIREMENTS:**

A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Wear safety glasses.

### **SKIN PROTECTION REQUIREMENTS:**

When handling hot material, use protective clothing impervious to this material. Selection of specific items such as gloves, boots, apron or full-body suit will depend on operation.

### **RESPIRATORY PROTECTION REQUIREMENTS:**

Under normal use conditions, with adequate ventilation, no special handling equipment is required. When there is potential for airborne exposures in excess of applicable limits, wear NIOSH/MSHA approved respiratory protection.

### **EXPOSURE GUIDELINES:**

HYDROGEN SULFIDE (H<sub>2</sub>S)  
OSHA TWA: 10 ppm, 14 mg/m<sup>3</sup>  
OSHA STEL: 15 ppm

## 9. PHYSICAL AND CHEMICAL PROPERTIES

FORM .....: Solid  
COLOR .....: Brown to Black  
ODOR .....: Asphalt Odor  
BOILING POINT .....: N/A  
VAPOR PRESSURE .....: <0.1 mm Hg @ 21 C  
VAPOR DENSITY .....: N/A (Air = 1)  
SOLUBILITY IN WATER .....: Nil  
SPECIFIC GRAVITY .....: 2.3 to 2.9 (Water = 1)  
MELTING/FREEZING POINT ...: N/A  
pH .....: NA  
VISCOSITY .....: NA

## 10. STABILITY AND REACTIVITY

### **STABILITY:**

This compound is stable at ambient conditions.

### **POLYMERIZATION:**

Hazardous polymerization will not occur.

### **INCOMPATIBILITY WITH OTHER MATERIALS:**

Incompatible or can react with acids, bases, oxidizers. Incompatible with water when hot.

### **DECOMPOSITION:**

Decomposition will not occur if handled and stored properly. In the case of a fire, oxides of sulfur, carbon, hydrocarbons, fumes, and smoke may be produced.

### **CONDITIONS TO AVOID:**

Avoid extreme temperatures.

## 11. TOXICOLOGICAL INFORMATION

This material or all of its components are listed on the Inventory of Existing Chemical Substances under the Toxic Substance Control Act (TSCA).

## 12. ECOLOGICAL INFORMATION

### **ENVIRONMENTAL HAZARDS:**

None known.

## 13. DISPOSAL CONSIDERATIONS

### **WASTE DISPOSAL:**

Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

### **CONTAINER DISPOSAL:**

Uncleaned empty containers should be disposed of in the same manner as the contents.

## 14. TRANSPORTATION INFORMATION

PRODUCT LABEL .....: Hot Mix Asphalt  
D.O.T. SHIPPING NAME ...: N/A  
D.O.T. HAZARD CLASS ....: Non-Hazardous

## 15. REGULATORY INFORMATION

### **EEC Symbols and Indications of Danger:**

Irritant (Xi)

### **WHMIS Hazard Symbols:**

None

### **Canadian Disclosure List**

QUARTZ (SiO<sub>2</sub>) (14808-60-7)  
SILICON DIOXIDE (AMORPHOUS) (7631-86-9)  
MICA (12001-26-2)  
IRON OXIDE (1309-37-1)

### **CERCLA Hazardous Substances**

HYDROGEN SULFIDE (H<sub>2</sub>S) (7783-06-4) -- RQ 100 lb



**RCRA Hazardous Substances**

HYDROGEN SULFIDE (H2S) (7783-06-4) -- RCRA Code: U135

**Title V**

HYDROGEN SULFIDE (H2S) (7783-06-4)

**SC Toxic Air Pollutants List**

HYDROGEN SULFIDE (H2S) (7783-06-4)

**16. OTHER INFORMATION**

REASON FOR ISSUE .....: Update  
PREPARED BY.....: Eric Richard  
APPROVED BY.....: Mozammel Haq  
TITLE .....: Environmental Compliance & Risk Manager  
APPROVAL DATE .....: August 14, 2007  
SUPERCEDES DATE .....: October 12, 2001  
R&G MSDS NUMBER .....: 001 (Official Copy)

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