



Hot Mix Asphalt

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : Hot Mix Asphalt, Bituminous Concrete

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Paving

1.3. Details of the supplier of the safety data sheet

Fred Weber, Inc.
2320 Creve Coeur Mill Road
Maryland Heights, MO 63043

Phone: 314-344-0070
Website: www.fredweberinc.com
E-mail: info@fredweberinc.com

1.4. Emergency telephone number

Emergency number : 314-473-3700

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Physical Hazards: Not classified

Health Hazards:

| | |
|--|-------------|
| Skin Irritant | Category 2 |
| Eye Damage | Category 1 |
| Carcinogen | Category 1A |
| Specific Organ Toxicity (STOT), Single Exposure | Category 3 |
| Specific Organ Toxicity (STOT), Repeated Exposure | Category 1 |

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H350 - May cause cancer (inhalation)
H372 - Causes damage to organs (lungs/respiratory system) through prolonged or repeated exposure (inhalation)
H314 - Causes severe skin burns and eye damage.
H335 - May cause respiratory irritation

Precautionary statements (GHS-US)

Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dusts, vapors, fumes, or mists. Wear protective clothing, protective gloves and eye protection. Use only outdoors or in a well-ventilated area. Do not eat, drink or smoke while manually handling this product. Wash skin thoroughly after manually handling.

Response

: If on skin: Wash with plenty of water. Specific treatment (see Section 4.1 of this SDS). If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

If swallowed: Rinse mouth. Do not induce vomiting. Get medical attention.

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If inhaled excessively: Remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do, and continue rinsing.

If exposed or concerned: Get medical advice/attention.

Immediately call a poison center or doctor if exposed, concerned, unwell or irritation of the eyes, skin, mouth or throat/nasal passage or other discomfort persist.

Storage : Store locked up by restricting or controlling access to silos and truck beds and while paving with hot material. Engulfment hazard: to prevent burial or suffocation, do not enter a confined space, such as a silo, bulk truck or other storage container or vessel that stores or contains aggregates without an effective procedure for assuring safety.

Disposal : Dispose of product in accordance with local, regional and federal regulations.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

Not applicable

SECTION 3: Composition/information on ingredients

3.2. Mixture

| Name | Product identifier | % |
|---|--------------------|-------|
| Aggregate (crushed stone, sand, gravel) | Not Available | 0-95% |
| Limestone (calcium carbonate) | 1317-65-3 | 0-95% |
| Quartz (sand, trap rock) | 14808-60-7 | 0-95% |
| Asphalt | 8052-42-4 | 5-10% |

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : In all cases of doubt, or when symptoms persist, seek medical attention.
- First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. In case of breathing difficulties administer oxygen by trained personnel. Contact a physician if irritation or difficulty breathing persists or develops later.
- First-aid measures after skin contact : If molten product contacts the skin, quickly remove contaminated clothing and cool immediately by immersing the contacted skin in cool water to limit tissue damage and prevent spread of liquid product. Cooling should continue only until product is hardened and cool. For extensive burns, cover with sterile dressing. Molten product may adhere strongly to skin and attempted removal may cause severe distress and further tissue damage. Do not use solvents to remove product from skin. Get prompt medical attention. For product that is not hot, wash with plenty of water and soap. Wash contaminated clothing if there is potential for direct skin contact. Do not rub the skin and eyes after direct contact with the product. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum). Remove contact lenses, if present and easy to do, and continue rinsing. Do not rub the skin and eyes after direct contact with the product. Exposure of the eyes to hot product produces a direct thermal burn. Obtain medical attention if irritation, pain, blinking or redness persist.
- First-aid measures after ingestion : If swallowed, rinse mouth with water (only if the person is conscious). Immediately call a POISON CENTER or doctor/physician. Do not induce vomiting. Direct contacted through ingestion of heated material can produce thermal burns on contacted tissues.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation : May cause respiratory irritation. May cause cancer by inhalation. Causes damage to organs through prolonged or repeated exposure. High concentration of vapors may induce: headache, dizziness, drowsiness, nausea and vomiting. Shortness of breath.
- Symptoms/injuries after skin contact : May cause skin irritation. Risk of thermal burns on contact with molten product. Direct skin contact with dust may cause irritation by mechanical abrasion.

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- Symptoms/injuries after eye contact : Causes serious eye irritation. Risk of thermal burns on contact with molten product. Dusts are mechanical irritants. Symptoms include stinging, watering, redness and swelling. Burning sensation.
- Symptoms/injuries after ingestion : Ingestion of heated material can produce thermal burns on contacted tissues. Oral ingestion of cool product is relatively nontoxic. Ingestion of large amounts may cause gastrointestinal irritation and blockage.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Foam, dry chemical, carbon dioxide, water fog, sand.
- Unsuitable extinguishing media : Apply aqueous extinguishing media carefully to prevent frothing/steam explosion. Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

- Fire/explosion hazard : Never use welding or cutting torch on or near (even empty) because material (even residue) can ignite explosively. Heat may build pressure, rupturing closed containers.
- Reactivity : Hydrogen sulfide and other sulfur-containing gases can evolve from this product particularly at elevated temperatures. Carbon monoxide, carbon dioxide, smoke, fumes, unburned hydrocarbons and oxides of sulfur and/or nitrogen may be formed upon combustion.

5.3. Advice for firefighters

- Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection. Wear a self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Do not get in eyes, on skin, or on clothing. Do not breathe (dust, vapor, mist, gas).

6.1.1. For non-emergency personnel

- Protective equipment : Use appropriate personal protection equipment (PPE).
- Emergency procedures : Restrict access to area until completion of clean-up.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : Eliminate ignition sources. Ventilate area.

6.2. Environmental precautions

- Environmental precautions : Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
- Methods for cleaning up : Avoid creating or spreading dust. Minimize generation of dust. Spills should be contained with mechanical barriers. Scoop solid spill into suitable container for disposal. Dispose in a safe manner in accordance with federal, state and local regulations. Consult the appropriate authorities about waste disposal.
- This product is not subject to the reporting requirements of SARA Title III Section 313 and 40 CFR 372.

6.4. Reference to other sections

- Reference : See Section 8 : Exposure controls/personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Ensure adequate ventilation. Do not breathe dust or fumes. Avoid creating or spreading dust. Avoid contact with skin, eyes and clothing. Keep away from ignition sources. Tripping accidents have occurred because of asphalt build-up on bottoms of shoes and boots. Material should be removed regularly to prevent such accidents.
- Hygiene measures : Do not eat, drink or smoke when using this product. Use good personal hygiene practices. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Ensure adequate ventilation. A washing facility/water for eye and skin cleaning purposes should be present.
- Storage conditions : When product is hot, there is a limited time in which it can be used for paving. Product is stored in silos at the plant; product should be transported from plant to work site in open-bed trucks, such that adequate ventilation reduces fire and explosion hazards and possible overexposure of personnel to fumes and vapors. Store away from heat, sparks, flames or strong oxidants, in accordance with applicable laws and regulations. Do not store near food and beverages or smoking material.
- Incompatible materials : Strong oxidizers may react with hydrocarbons. Adding water to hot asphalt presents an explosion hazard.

7.3. Specific end use(s)

- No additional information available : Paving

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Asphalt (8052-42-4) | | |
|-----------------------|--------------------------------------|--|
| ACGIH | ACGIH TWA (mg/m ³) | 0.5 mg/m ³ (fume, inhalable fraction) |
| NIOSH | NIOSH REL (mg/m ³) | 5 mg/m ³ |
| Quartz (14808-60-7) | | |
| ACGIH | ACGIH TWA (mg/m ³) | 0.025 mg/m ³ (respirable) |
| NIOSH | NIOSH REL (TWA) (mg/m ³) | 0.05 mg/m ³ (respirable) |
| OSHA | OSHA PEL (TWA) (mg/m ³) | 10 mg/m ³ /(%SiO ₂ + 2) |
| Limestone (1317-65-3) | | |
| NIOSH | NIOSH REL (TWA) (mg/m ³) | 10 mg/m ³ (total), 5 mg/m ³ (respirable) |
| OSHA | OSHA PEL (TWA) (mg/m ³) | 15 mg/m ³ (total), 5 mg/m ³ (respirable) |

8.2. Exposure controls

- Appropriate engineering controls : A washing facility/water for eye and skin cleaning purposes should be present. Provide adequate ventilation. Ensure the ventilation system is regularly maintained and tested. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits.

- Personal protective equipment : Avoid all unnecessary exposure. Protective goggles. Gloves. Protective clothing.



- Hand protection : If material is hot, wear thermally resistant protective gloves.
- Eye protection : Safety glasses with side shields. Chemical goggles.
- Skin and body protection : Long sleeved protective clothing.
- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment. The filter class must be suitable for the maximum contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, closed-circuit breathing apparatus must be used. Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material. A respiratory protection program compliant with all applicable regulations must be followed whenever workplace conditions require the use of a respirator.
- Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Solid
- Appearance : Semi-solid tar-like material with dispersed aggregate (angular dark gray to black particles ranging in size from powder to small stones)
- Color : Black
- Odor : Petroleum
- Odor threshold : Varied

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| | |
|---|-----------------------------------|
| pH | : Not applicable |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Relative evaporation rate (ether=1) | : Slower than ether |
| Melting point | : 200°F (for asphalt) |
| Freezing point | : No data available |
| Boiling point | : < 878°F (for asphalt) |
| Flash point | : > 450°F (for asphalt) |
| Auto-ignition temperature | : 905°F (for asphalt) |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : Not flammable |
| Vapor pressure | : < 0.1 @ 20°C (for asphalt) |
| Relative vapor density at 20 °C | : > 5 (air = 1) (for asphalt) |
| Specific gravity | : 1.03 (for asphalt) |
| Solubility (water) | : Negligible. |
| Log Pow | : No data available |
| Log Kow | : No data available |
| Viscosity, kinematic | : 93.25 cP at 220°F (for asphalt) |
| Viscosity, dynamic | : Not applicable |
| Explosive properties | : Not applicable |
| Oxidizing properties | : No data available |
| Explosive limits | : Not applicable |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable at ambient temperature and under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat/sparks/open flames/high temperature.

10.5. Incompatible materials

Strong oxidizers. Strong acids. Strong bases.

10.6. Hazardous decomposition products

Carbon dioxide, carbon monoxide, smoke, fumes, unburned hydrocarbons and oxides of sulfur and/or nitrogen. Hydrogen sulfide and other sulfur-containing gases can evolve from this product at elevated temperatures.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

| Asphalt (8052-42-4) | |
|---------------------|--------------|
| LD50 oral rat | > 5000 mg/kg |
| LD50 dermal rabbit | > 2000 mg/kg |
| Quartz (14808-60-7) | |
| LD50 oral rat | > 5000 mg/kg |

| | |
|-----------------------------------|----------------------------------|
| Skin corrosion/irritation | : Not classified |
| Serious eye damage/irritation | : Causes serious eye irritation. |
| Respiratory or skin sensitisation | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : May cause cancer (inhalation). |

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| Asphalt (8052-42-4) | |
|--|---|
| IARC group | 2B |
| National Toxicity Program (NTP) Status | Twelfth Report – Items under consideration. |
| Quartz (14808-60-7) | |
| IARC group | 1 |
| National Toxicity Program (NTP) Status | Known Human Carcinogens. |

| | | |
|--|---|---|
| Reproductive toxicity | : | Not classified |
| Specific target organ toxicity (single exposure) | : | May cause respiratory irritation. |
| Specific target organ toxicity (repeated exposure) | : | Causes damage to organs through prolonged or repeated exposure (inhalation). |
| Aspiration hazard | : | Not classified |
| Symptoms/injuries after inhalation | : | May cause respiratory irritation. May cause cancer by inhalation. Causes damage to organs through prolonged or repeated exposure. |
| Symptoms/injuries after skin contact | : | May cause skin irritation. May cause thermal burns. |
| Symptoms/injuries after eye contact | : | Causes serious eye irritation. May cause thermal burns. |
| Chronic Symptoms | : | May cause cancer by inhalation. Causes damage to organs through prolonged or repeated exposure. |

SECTION 12: Ecological information

12.1. Toxicity

No additional information available.

12.2. Persistence and degradability

No additional information available.

12.3. Bioaccumulative potential

| Asphalt (8052-42-4) | |
|---------------------|-------------------------------|
| BCF fish 1 | (no bioaccumulation expected) |
| Log Pow | > 6 |

12.4. Mobility in soil

No additional information available.

12.5. Other adverse effects

No additional information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of waste materials only in accordance with applicable federal, state and local laws and regulations.

SECTION 14: Transport information

In accordance with DOT. Not regulated for transport.

SECTION 15: Regulatory information

15.1. US Federal regulations

| | | |
|----------------|---|--|
| SARA Title III | : | Sections 311 and 312 |
| TSCA | : | All components of the product appear on the EPA TSCA chemical substance inventory. |

15.3. US State regulations

| | | |
|---|---|--|
| Component Analysis: Quartz (14808-60-7) | : | Appears on the following state hazardous substances lists: MA, MN, NJ, PA. CA Proposition 65 – Carcinogens List. WARNING: This product contains chemicals known to the State of California to cause cancer. |
|---|---|--|

SECTION 16: Other information

| | | |
|------------|---|--------------|
| Issue Date | : | May 21, 2015 |
|------------|---|--------------|

To the best of our knowledge the information contained herein is correct. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these will not require responsibility on behalf of the user. Users of any chemical should satisfy themselves that the conditions and method of use assure that the chemical is used safely. No representation or warranties, either express or implied, of merchantability, fitness for a particular purpose or any other nature are made herein or the chemical to which the information refers.