

BIO-DRY ASPHALT CONDITIONER

1 PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: BIO-DRY ASPHALT CONDITIONER
SDS Number: BDFG2
Revision Date: 8/24/2018
Version: 1

Supplier Details: BIO-DRY Products, LLC
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2 HAZARDS IDENTIFICATION

Classification of Substance

GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):

Health, Skin corrosion/irritation, 2
 Health, Serious Eye Damage/Eye Irritation, 1
 Health, Acute toxicity, 5 Inhalation
 Health, Specific target organ toxicity - Single exposure, 3
 Health, Carcinogenicity, 2
 Health, Specific target organ toxicity - Repeated exposure, 2

GHS Label Elements, Including Precautionary Statements

GHS Signal Word: **DANGER**

GHS Hazard Pictograms:



GHS Hazard Statements:

H315 - Causes skin irritation
 H318 - Causes serious eye damage
 H333 - May be harmful if inhaled
 H336 - May cause drowsiness or dizziness
 H351 - Suspected of causing cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)
 H373 - May cause damage to organs (state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)

GHS Precautionary Statements:

P202 - Do not handle until all safety precautions have been read and understood.
 P260 - Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
 P280 - Wear protective gloves/ eye protection/ face protection.
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P308 + P313 - IF exposed or concerned: Get medical advice/ attention.

3 COMPOSITION/INFORMATION ON INGREDIENTS

BIO-DRY ASPHALT CONDITIONER

Chemical Ingredients		
CAS#	%	Chemical Name
60676-86-0	1-5%	Silica, fused
71243-67-9	1-5%	Pozzolans, coal-ash
1305-78-8	1-5%	Calcium oxide
1318-02-1	40-50%	Zeolites other than erionite (clinoptilolite, phillipsite, mordenite, non-fibrous Japanese zeolite, synthetic zeolites)
7440-44-0	25-35%	Carbon

The chemical identity and/or concentrations have been withheld as trade secret. In the event of an emergency, the exact concentrations and ingredients will be disclosed to competent authority.

4 FIRST AID MEASURES

- Inhalation:** If inhaled move to fresh air. If not breathing, give artificial respiration.
- Skin Contact:** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If irritation persist, obtain medical attention.
- Eye Contact:** Immediately flush eyes with large amounts of water for at least 15 minutes, lifting eyelids occasionally to facilitate irrigation. Contact a physician if redness persists.
- Ingestion:** Do not induce vomiting without medical advice. Do not give anything by mouth to an unconscious or convulsing person. Rinse mouth with water.

Effects and symptoms:

- Ingestion:** May be harmful if swallowed.
- Inhalation:** Causes allergy or asthma symptoms.
- Skin contact:** Causes severe skin burns.
- Eye contact:** Causes eye damage.

5 FIRE FIGHTING MEASURES

- Extinguishing Media:** Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.
- Extinguishing Methods:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers.
- Specific hazards during fire-fighting:** Burning produces irritant fumes. Exposure to decomposition products may be a hazard to health.
- Special protective equipment:** Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

6 ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures: Use appropriate protective equipment. (See Section 8.) Do not get into eyes, skin, or clothing. Wear respiratory protection. Avoid breathing vapors. Ensure adequate ventilation.

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Environmental Precautions: Do not let product enter drains. Prevent uncontrolled discharge of product into the environment if safe to do so.

Methods and Materials for Containment and Cleanup: Do not discharge into waste water. Soak up with inert absorbent material (e.g. sand, silica gel, sawdust). Sweep up and shovel. Place in a non-leaking container for proper disposal according to Federal, State, and Local regulations.

7 HANDLING AND STORAGE

Handling Precautions: Wear personal protective equipment when handling product. Handle with care. Take care to avoid waste and spillage when weighing, loading and mixing the product.

Storage Requirements: Observe label precautions. Keep containers tightly closed in a dry, cool and well ventilated place. Do not allow product to freeze.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Use in well ventilated area.

Personal Protective Equipment: Personal Protective Equipment: HMIS PP, C | Safety Glasses, Gloves, Apron.

Use good chemical hygiene practice. Avoid contact with skin, eyes, and clothing. Avoid inhalation of vapors/dust.

Silica, fused cas#:(60676-86-0) [1-5%]

Calcium oxide cas#:(1305-78-8) [1-5%]

Components with workplace control parameters

TWA 2 mg/m3 USA. ACGIH Threshold Limit Values (TLV)
Upper Respiratory Tract irritation

TWA 5 mg/m3 USA. OSHA - TABLE Z-1 Limits for Air Contaminants -
1910.1000

The TWA PEL of 5 mg/m3 is not in effect as a result of reconsideration. The calcium oxide Transitional Limit of mg/m3 remains in effect and employee exposures shall be kept below that level pursuant to the methods of compliance specified in 29 CFR 1910.1000(e).

TWA 5 mg/m3 USA. Occupational Exposure Limits (OSHA) - Table Z- 1
Limits for Air Contaminants

TWA 2 mg/m3 USA. NIOSH Recommended Exposure Limits

Zeolites other than erionite (clinoptilolite, phillipsite, mordenite, non-fibrous Japanese zeolite, synthetic zeolites) cas#:(1318-02-1) [40-50%]

Carbon cas#:(7440-44-0) [25-35%]

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9	PHYSICAL AND CHEMICAL PROPERTIES
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Appearance:	Free flowing black powder		
Physical State:	Solid (Powder)	Odor:	Low to no odor
pH:	1% solution in water (7-8.5)		

10	STABILITY AND REACTIVITY
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Reactivity:	no data available		
Chemical Stability:	stable under recommended storage conditions.		
Conditions to Avoid Identification:	no data available		
Materials to Avoid Identification:	strong oxidizing agents		
Hazardous Decomposition:	Oxides of carbon		
Hazardous Polymerization:	no data available		

11	TOXICOLOGICAL INFORMATION
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Silica, fused cas#:(60676-86-0) [1-5%]

Information on toxicological effects

Acute toxicity: no data available

Inhalation: no data available

Dermal: no data available

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: no data available

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: no data available

Carcinogenicity:
 Limited evidence of carcinogenicity in human studies
 IARC: 1 - Group 1: Carcinogenic to humans (Quartz)
 ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
 NTP: Known to be human carcinogen (Quartz)
 OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available

Specific target organ toxicity - single exposure: no data available

Specific target organ toxicity - repeated exposure: Inhalation - May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard: no data available

Additional Information:

RTECS: VV7330000

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Prolonged inhalation of crystalline silica may result in silicosis, a disabling pulmonary fibrosis characterized by fibrotic changes and miliary nodules in the lungs, a dry cough, shortness of breath, emphysema, decreased chest expansion, and increased susceptibility to tuberculosis. In advanced stages, loss of appetite, pleuritic pain, and total incapacity to work. Advanced silicosis may result in death due to cardiac failure or destruction of lung tissue. Crystalline silica is classified as group 1 "known to be carcinogenic to humans" by IARC and "sufficient evidence" of carcinogenicity by the NTP., The chronic health risks are associated with respirable particles of 3-4 um over protracted periods of time. Currently, there is a limited understanding of the mechanisms of quartz toxicity, including its mechanisms for lung carcinogenicity. Additional studies are needed to determine whether the cell transforming activity of quartz is related to its carcinogenic potential.

Liver - Irregularities - Based on Human Evidence

Calcium oxide cas#:(1305-78-8) [1-5%]

Information on toxicological effects

Acute toxicity:

Oral LD50 no data available

Inhalation LC50

Dermal LD50

Other information on acute toxicity

Skin corrosion/irritation: Skin - Human - Severe skin irritation

Serious eye damage/eye irritation: Eyes - rabbit - Risk of serious damage to eyes.

Respiratory or skin sensitization: no data available

Germ cell mutagenicity: no data available

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available

Teratogenicity: no data available

Specific target organ toxicity - single exposure (Globally Harmonized System):

Inhalation - May cause respiratory irritation.

Specific target organ toxicity - repeated exposure (Globally Harmonized System):

no data available

Aspiration hazard: no data available

Potential health effects: Inhalation May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Ingestion May be harmful if swallowed.

Skin May be harmful if absorbed through skin. Causes skin burns. Eyes Causes eye burns.

Signs and Symptoms of Exposure: Cough, Shortness of breath, Headache, Nausea, Vomiting To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects: no data available

Additional Information:

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RTECS: EW310000

Zeolites other than erionite (clinoptilolite, phillipsite, mordenite, non-fibrous Japanese zeolite, synthetic zeolites) cas#:(1318-02-1) [40-50%]

Information on toxicological effects

Acute toxicity:

Oral LD50 Oral - rat - > 10,000 mg/kg

Inhalation LC50 Dermal LD50 Dermal - rabbit - > 2,000 mg/kg

Other information on acute toxicity no data available

Skin corrosion/irritation: Skin - Human - No skin irritation

Serious eye damage/eye irritation: Eyes - rabbit - No eye irritation

Respiratory or skin sensitization: no data available

Germ cell mutagenicity: Genotoxicity in vitro - Human - lymphocyte Cytogenetic analysis

Genotoxicity in vivo - mouse - Intraperitoneal

Carcinogenicity:

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Zeolites crystalline aluminosilicates, composed of silica (SiO₂) and alumina (Al₂O₃), in various proportions plus metallic oxides. Pr)

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available

Teratogenicity: no data available

Specific target organ toxicity - single exposure (Globally Harmonized System):

Inhalation - May cause respiratory irritation.

Specific target organ toxicity - repeated exposure (Globally Harmonized System):

no data available

Aspiration hazard: no data available

Potential health effects: Inhalation May be harmful if inhaled. Causes respiratory tract irritation. Ingestion May be harmful if swallowed. Skin May be harmful if absorbed through skin. Causes skin irritation. Eyes Causes eye irritation.

Signs and Symptoms of Exposure: prolonged or repeated exposure can cause:, Damage to the lungs. Cough, Difficulty in breathing, Gastrointestinal disturbance, prolonged or repeated exposure can cause:, Damage to the lungs., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects: no data available

Additional Information:

RTECS: ZG680000

Carbon cas#:(7440-44-0) [25-35%]

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Information on toxicological effects

Acute toxicity: no data available

Inhalation: no data available

Dermal: no data available

LD50 Intravenous - mouse - 440 mg/kg

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: no data available

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: no data available

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available

Specific target organ toxicity - single exposure: no data available

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: no data available

Additional Information:

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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ECOLOGICAL INFORMATION

Silica, fused cas#:(60676-86-0) [1-5%]

Information on ecological effects

Toxicity: no data available

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

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Other adverse effects: no data available

Calcium oxide cas#:(1305-78-8) [1-5%]

Information on ecological effects

Toxicity:

Toxicity to fish LC50 - Cyprinus carpio (Carp) - 1,070 mg/l - 96 h.

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: no data available

Zeolites other than erionite (clinoptilolite, phillipsite, mordenite, non-fibrous Japanese zeolite, synthetic zeolites) cas#:(1318-02-1) [40-50%]

Information on ecological effects

Toxicity:

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: no data available

Carbon cas#:(7440-44-0) [25-35%]

Information on ecological effects

Toxicity: no data available

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects: no data available

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13 DISPOSAL CONSIDERATIONS

Product: Offer surplus and non-recyclable solutions to a licensed disposal company. Do not dispose of waste into sewer.

Contaminated packaging: Dispose of as unused product.

14 TRANSPORT INFORMATION

DOT (US): Not dangerous goods

15 REGULATORY INFORMATION

Component (CAS#) [%] - CODES

Silica, fused (60676-86-0) [1-5%] MASS, OSHAWAC, TSCA, TXAIR

Pozzolans, coal-ash (71243-67-9) [1-5%] TSCA

Calcium oxide (1305-78-8) [1-5%] MASS, OSHAWAC, PA, TSCA, TXAIR

Zeolites other than erionite (clinoptilolite, phillipsite, mordenite, non-fibrous Japanese zeolite, synthetic zeolites) (1318-02-1) [40-50%]

Carbon (7440-44-0) [25-35%] TSCA

Regulatory CODE Descriptions

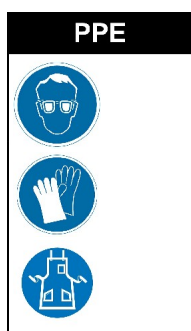
MASS = MA Massachusetts Hazardous Substances List
OSHA = OSHA Workplace Air Contaminants
TSCA = Toxic Substances Control Act
TXAIR = TX Air Contaminants with Health Effects Screening Level
PA = PA Right-To-Know List of Hazardous Substances

16 OTHER INFORMATION

HMIS III: Health = 3, Fire = 0, Physical Hazard = 0

HMIS PPE: C - Safety Glasses, Gloves, Apron

HMIS		
HEALTH	■	3
FLAMMABILITY		0
PHYSICAL HAZARD		0
PERSONAL PROTECTION		C



Author: BIO-DRY PRODUCTS TECHNICAL DEPARTMENT

This information is based on our current knowledge of the product and is intended to describe the product for the purposes of health, safety, and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of

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the product.