

# ERGON

CFB-1

MSDS No. AE047

Date of Preparation: April 15, 2002

Revision: 0

## Section 1 - Chemical Product and Company Identification

**Product/Chemical Name:** CFB-1

**Chemical Formula:** Mixture

**CAS Number:** Mixture

**Other Designations:** Asphalt Emulsion (Contains Oil)

**General Use:** Coal Brick Emulsion

**Manufacturer:** ERGON Asphalt & Emulsions, Inc.; P.O. Box 1639; Jackson, MS 39215-1639; Phone (601)933-3000, Hours of Operation: 8:00 a.m. - 5:00 p.m.; ERGON 24-hr Emergency Phone Number: 1-800-824-2626; CHEMTREC: (800)424-9300

## Section 2 - Composition / Information on Ingredients

Ingredient Name	CAS Number	% vol
Petroleum Asphalt	8052-42-4	0-80%
Petroleum Bitumen	Proprietary	0-80%
Water	7732-18-5	5-90%
Emulsifier	Proprietary	0-5%
Surfactant	Proprietary	0-7%
Hydrogen Sulfide	7783-06-4	0-1%

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH IDLH
	TWA	STEL	TWA 8 Hr.	STEL 15 min.	TWA	STEL	
Petroleum Asphalt	None estab.	None estab.	5 mg/m <sup>3</sup>	None estab.	None estab.	None estab.	None estab.
Petroleum Bitumen	None estab.	None estab.	5 mg/m <sup>3</sup>	None estab.	None estab.	None estab.	None estab.
Water	None estab.	None estab.	None estab.	None estab.	None estab.	None estab.	None estab.
Emulsifier	None estab.	None estab.	None estab.	None estab.	None estab.	None estab.	None estab.
Surfactant	None estab.	None estab.	None estab.	None estab.	None estab.	None estab.	None estab.
Hydrogen Sulfide	None estab.	None estab.	10 ppm	15 ppm	None estab.	None estab.	None estab.

## Section 3 - Hazards Identification

☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

**HMIS**  
**H** 2  
**F** 1  
**R** 0  
**PPE** †  
†Sec. 8

### Potential Health Effects

**Primary Entry Routes:** Inhalation and absorption.

**Target Organs:** Mucous membranes, skin, and digestive tract.

#### Acute Effects

**Inhalation:** Breathing of the mists, vapors or fumes may irritate the nose, throat and lungs. Symptoms may include sore throat, coughing, labored breathing, sneezing and burning sensation, depending on the concentration and duration of exposure. May cause central nervous system depression or effects. May produce symptoms of intoxication, such as headache, dizziness, nausea, vomiting, blurred vision, tremors, convulsions, loss of coordination, loss of consciousness, coma, respiratory arrest and death depending on the concentration and duration of exposure.

**Eye:** Highly irritating; a significant thermal hazard under normal usage due to the high temperatures required for application.

**Skin:** Moderately irritating; hot asphalt will cause severe burns. May lead to photosensitization and drying of the skin.

Absorption from prolonged or repeated skin contact may cause systemic toxicity.

**Ingestion:** Irritating to mucous membranes and gastrointestinal tract. May cause thermal burns as well as nausea, vomiting and diarrhea. Aspiration into the lungs may cause chemical pneumonia and lung damage.

**Carcinogenicity:** IARC, NTP, and OSHA do not list product as a carcinogen.

**Medical Conditions Aggravated by Long-Term Exposure:** Dermatitis.

**Chronic Effects:** Prolonged and repeated skin contact may cause dermatitis, photosensitization, and melanosis. Evidence from animal studies suggest that asphalt left on the skin for long periods of time may result in local carcinomas, but there have been no reports of such effects on humans skin that can be attributed to asphalt alone.

## Section 4 - First Aid Measures

**Inhalation:** Remove to fresh air. Apply artificial respiration if needed. Seek medical attention.

**Eye Contact:** Flush thoroughly with water for at least 15 minutes. If burning persists seek medical attention.

**Skin Contact:** If molten asphalt strikes the exposed skin, cool the skin immediately by quenching with cold water. Wash thoroughly with soap and water. Do not use harsh solvents to remove asphalt from skin. Lotion or hand cream may aid in the removal of asphalt. Cover with a sterile dressing. Seek medical attention if needed.

**Ingestion:** Do not induce vomiting and seek medical help.

*After first aid, get appropriate in-plant, paramedic, or community medical support.*

**Special Precautions/Procedures:** The petroleum hydrocarbons in this product are a complex mixture of paraffinic, naphthenic and aromatic hydrocarbons. As with other petroleum products, the aromatic compounds are present in varying concentrations and structures. Some of these compounds may be those which have been shown to result in tumor formation in animals under laboratory conditions. The concentrations of aromatic compounds in this product require that the precautions outlined in this MSDS be followed to minimize personnel exposure.

Provide adequate ventilation to keep vapors below allowable exposure levels. Use PPE appropriate for the task.

## Section 5 - Fire-Fighting Measures

**Flash Point:** >212 °F

**Flash Point Method:** No data.

**Autoignition Temperature:** No data.

**LEL:** No data.

**UEL:** No data.

**Flammability Classification:** Class IIIB

**Extinguishing Media:** Dry chemical and carbon dioxide.

**Unusual Fire or Explosion Hazards:** This product may ignite when sufficient heat is applied. Check for combustible vapors prior to and during welding or torch cutting on vessels or tanks. It has been found that in hot storage tanks low flash substances may accumulate in the vapor space. The flammability characteristics will not be detected by any flash point method. Keep ignition sources away from tank vents and prevent accumulation of pyrophoric iron sulfide.

**Hazardous Combustion Products:** Carbon monoxide, carbon dioxide, and sulfur dioxide.

**Fire-Fighting Instructions:** Use of foam or water may cause frothing. Do not release runoff from fire control methods to sewers or waterways. Use a water spray to cool fire-exposed containers.

**Fire-Fighting Equipment:** Use self-contained breathing apparatus in enclosed areas where heavy smoke may occur.



## Section 6 - Accidental Release Measures

**Spill /Leak Procedures:** Stop spill at source. Confine spill by diking or impoundment. Remove sources of heat or ignition. Cleanup spill, but do not flush to sewer or surface water. Ventilate area and avoid breathing vapors or mists.

**Small Spills:** Stop spill at source if possible. Isolate and confine by diking, or similar method. Remove discharged material.

### Large Spills

**Containment:** For large spills, dike far ahead of liquid spill for later disposal. Do not release into sewers or waterways.

**Cleanup:** Allow material to cool. Mix with sand to stabilize.

**Regulatory Requirements:** Notify local health and pollution control agencies as appropriate. Follow applicable OSHA regulations (29 CFR 1910.120). This material may be a hazardous waste as defined in RCRA. For disposal follow all federal, state, and local regulations regarding solid waste.

## Section 7 - Handling and Storage

**Handling Precautions:** Ground lines and equipment during transfer to reduce the possibility of static spark-initiated fire or explosion. Use non-sparking tools. Do not cut, grind, weld or reuse containers unless adequate precautions are taken against these hazards. Do not heat to temperatures above the boiling point of water (212° F). Do not freeze. Do not eat, drink or smoke in the areas of use or storage.

**Storage Requirements:** Store in a dry, isolated, and well-ventilated area away from sources of ignition and incompatibles. Avoid contact with strong oxidizers. Empty containers may contain product residue. Do not reuse without adequate precautions. Hydrogen sulfide can build up in the headspace of storage vessels containing hot asphalt products. Use appropriate respiratory protection to prevent exposure. When entering a storage vessel that has previously contained any type of asphalt product, it is recommended that the atmosphere be monitored for the presence of hydrogen sulfide. Hydrogen sulfide can react with the iron in an asphalt storage tank to form iron sulfide. Iron sulfide is pyrophoric. When exposed to air, iron sulfide is capable of igniting spontaneously.

**Regulatory Requirements:** None known.

## Section 8 - Exposure Controls / Personal Protection

**Engineering Controls:** Not applicable.

**Ventilation:** Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

**Respiratory Protection:** None required under normal operating conditions. Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. **For emergency or nonroutine operations** (cleaning spills, reactor vessels, or storage tanks), wear an SCBA. *Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.* If respirators are used, OSHA requires a written respiratory protection program that includes: procedures for selecting respirators; medical evaluations; fit testing; use in routine and emergency situations; cleaning, disinfecting, storing, inspecting, repairing, discarding and maintaining respirators; adequate air quality, quantity and flow; training in respiratory hazards; training in use of respirators; evaluation of effectiveness of respiratory program.

**Protective Clothing/Equipment:** Wear protective gloves, boots, aprons, and gauntlets as needed to prevent prolonged or repeated skin contact. Goggles and face shields should be used in areas where splashing may occur. Wear protective eyeglasses or safety goggles per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

**Safety Stations:** Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

**Contaminated Equipment:** Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

**Comments:** Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, and smoking.

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid.

**Appearance and Odor:** Dark brown water based liquid with a musty odor.

**Odor Threshold:** No data

**Vapor Pressure:** 23.76 mmHg at 77° F

**Vapor Density (Air=1):** No data.

**Formula Weight:** No data.

**Density:** 7.5-9.2 lb/gal

**Specific Gravity (H<sub>2</sub>O=1, at 4 °C):** 0.9-1.1

**pH:** 2-6..5

**Water Solubility:** Dispersible in water.

**Other Solubilities:** No data.

**Boiling Point:** 212 °F

**Freezing/Melting Point:** <32 °F

**Viscosity:** 10 700 SFS at 77° F

**Refractive Index:** No data.

**Surface Tension:** No data.

**% Volatile:** No data.

**Evaporation Rate:** No data.

## Section 10 - Stability and Reactivity

**Stability:** This product is stable at room temperature in closed containers under normal storage and handling conditions.

**Polymerization:** Hazardous polymerization cannot occur.

**Chemical Incompatibilities:** Strong oxidizing agents.

**Conditions to Avoid:** Do not overheat product.

**Hazardous Decomposition Products:** Decomposition of this product due to fire can produce carbon monoxide, carbon dioxide, and sulfur dioxide.

## Section 11- Toxicological Information

### Toxicity Data:

**Eye Effects:** Vapors may cause a slight smarting of the eyes or respiratory system if present in high concentrations. The effect is temporary.

**Skin Effects:** Causes smarting of the skin and first-degree burns on short exposure; may cause secondary burns on long exposure.

#### Acute Inhalation Effects:

Human, inhalation, TC<sub>LO</sub>: No data.

#### Acute Oral Effects:

Rat, oral, LD<sub>50</sub>: 5 to 15 g/kg

**Chronic Effects:** Prolonged and repeated skin contact may cause dermatitis, photosensitization, and melanosis. Evidence from animal studies suggest that asphalt left on the skin for long periods of time may result in local carcinomas, but there have been no reports of such effects on humans skin that can be attributed to asphalt alone. Overexposure may cause systemic toxicity, including adverse effects to the liver, kidney, skin, respiratory and nervous system.

**Carcinogenicity:** Not a human carcinogen.

**Mutagenicity:** No data..

**Teratogenicity:** No data.

## Section 12 - Ecological Information

**Ecotoxicity:** No data.

**Environmental Fate****Environmental Transport:** No data.**Environmental Degradation:** No data.**Soil Absorption/Mobility:** No data.**Section 13 - Disposal Considerations****Disposal:** Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state, and local regulations.**Disposal Regulatory Requirements:** Waste product may be a hazardous waste (Corrosive, D002) under RCRA guidelines. Follow appropriate testing procedures to determine if the waste should be classified as a Hazardous Waste. Follow Federal, state, and local regulations for disposal of waste.**Container Cleaning and Disposal:** Recommend using a non-hazardous solvent to remove the product. Follow Federal, state, and local regulations for disposal of the waste material, regardless of its waste classification.**Section 14 - Transport Information****DOT Transportation Data (49 CFR 172.101):****Shipping Name:** Asphalt Emulsion (Contains Oil)**Shipping Markings:** NA**Hazard Class:** NA**ID No.:** NA**Packing Group:** NA**Label:** NA**Special Provisions (172.102):**  
NA**Packaging Authorizations****a) Exceptions:** NA**b) Non-bulk Packaging:** NA**c) Bulk Packaging:** NA**Quantity Limitations****a) Passenger, Aircraft, or Railcar:** NA**b) Cargo Aircraft Only:** NA**Vessel Stowage Requirements****a) Vessel Stowage:** NA**b) Other:** NA**Section 15 - Regulatory Information****EPA Regulations:****RCRA**

RCRA Hazardous Waste Number: Not listed. This product should not be hazardous due to its characteristics; however, should the pH become less than 2, the waste code will be D002.

RCRA Hazardous Waste Classification (40 CFR 261): Waste material should be tested for corrosivity.

**CERCLA**

CERCLA: Not a listed hazardous substance.

CERCLA Reportable Quantity (RQ): This material is not a hazardous substance and does not have a reportable quantity.

However, if spilled into waters of the U.S., it may be reportable under the Clean Water Act.

**SARA**

SARA 311/312 Codes:	Immediate Hazard:	Yes
	Delayed Hazard:	Yes
	Fire Hazard:	No
	Pressure Hazard:	No
	Reactivity Hazard:	No

SARA Toxic Chemical: Not listed

SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed

**TSCA**

TSCA: All known major components are listed in the TSCA inventory.

**OSHA Regulations:**

Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): Not listed

OSHA Specifically Regulated Substance: No

**State Regulations:** Review applicable state regulations to determine regulatory status of this product.**Section 16 - Other Information****Prepared By:** Kathy W. Sanders**Revision Notes:** Revision: 0**Additional Hazard Rating Systems:****Disclaimer:** ERGON ASPHALT & EMULSIONS, INC. (EAE) PROVIDES THIS INFORMATION FOR THE USER'S CONSIDERATION. EAE BELIEVES THIS INFORMATION IS ACCURATE, BUT NOT ALL-INCLUSIVE IN ALL CIRCUMSTANCES. USER SHOULD ENSURE THAT USER HAS CURRENT DATA RELEVANT FOR ITS PURPOSES. NO WARRANTY, EXPRESSED OR IMPLIED, INCLUDING MERCHANTABILITY, FITNESS OR OTHERWISE IS GIVEN.