

# MATERIAL SAFETY DATA SHEET

Effective Date: 03/31/2015

Replaces: n/a

## MPFC-D-8D Fitting Coating

### SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<b>Product Name:</b> MPFC-D-8D	<b>Formula:</b> Mixture
<b>Synonyms/Common Names:</b> Water-based asphalt emulsion	
<b>Manufacturer/Contact Info:</b> Professional Coating Technologies, Inc. 1001 Mt Lebanon Road Cedar Hill TX 75104	<b>General Phone Number:</b> 972 291 7474  <b>Emergency Phone Number:</b> <b>1 800 424 9300 Chemtrec, 24 hours/day, 7 days/week)</b>

### SECTION 2. COMPOSITION INFORMATION ON INGREDIENTS

Hazardous Components	CAS No.	% by Weight
Asphalt	8052-42-4	50-62
Water		35-40
Emulsifying Agent (Natural Fatty Acids Soap and Lignin Soap)	Mixture	5-10

### SECTION 3. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

##### WARNING

Do not let wet material contact skin or eyes. Contact with product can cause severe chemical burns to eyes and skin. Fumes, mists or vapors may cause eye, skin or respiratory irritation.

#### POTENTIAL HEALTH EFFECTS

**Note:** This product may be hot (approximately 70 - 120°F), and is neutral (pH approximately 6.5-7.5). Therefore, contact with eyes and skin should be avoided. Significant airborne emissions (fumes, mists, vapors) from this product are considered unlikely under normal use and working conditions.

##### Primary Routes of Exposure:

Eyes, skin, inhalation.

##### Eye Contact:

May produce severe irritation and/or chemical (alkali) burns. Symptoms may include tearing, redness or a stinging sensation. May cause swelling of the eyes with blurred vision. Can injure eye tissue. Effects may become more serious with repeated or prolonged contact. Direct contact with hot material can cause severe thermal burns. Fumes, vapors or mists may be irritating.

##### Skin Contact:

May produce irritation and/or chemical burns. Symptoms may include redness, an itching or burning sensation, and/or swelling of the skin. May cause skin damage. Direct contact with hot material can cause severe thermal burns. There may be an increased sensitivity to the sun (photosensitization) when the skin is exposed to petroleum asphalt emissions (fumes, vapors or mists). May scratch the skin causing irritation. See Section 11 for additional information.

##### Skin Absorption:

Not expected to be a significant exposure route following short-term exposure. Repeated or prolonged exposure may result in absorption of component petroleum distillates. See Section 11 for additional information.

**POTENTIAL HEALTH EFFECTS****Inhalation:**

Emissions from the heated material may have an unpleasant odor and may cause moderate to severe irritation of the mucous membranes and upper respiratory tract, headaches, nausea and dizziness. Toxic hydrogen sulfide gas may be released. Do not depend upon sense of smell for warning of overexposure, since the gas causes rapid olfactory fatigue which deadens the sense of smell at levels as low as 50 ppm. Unconsciousness and asphyxiation may occur in poorly ventilated or confined spaces. See Section 11 for additional information.

**Ingestion:**

May cause burns. Direct contact with heated material can cause severe thermal burns. Asphalt has a low toxicity when ingested, however, chewing and swallowing asphalt may cause gastrointestinal effects. Gastric masses (Bezoars) and stomach (pyloric) obstructions have been reported in individuals who have chewed and swallowed asphalt. Aspiration of product into lungs may occur when vomiting, and may result in pulmonary edema and/or chemical pneumonia.

**Effects Following Prolonged or Repeated Exposure:**

Prolonged and repeated exposure may cause skin disorders and/or effects on the lung. See Section 11 for additional information.

**Carcinogenicity:** Studies of workers exposed to asphalt have not established an association between asphalt fumes and cancer and other lung diseases in man. However this petroleum based product contains a variable amount of polycyclic aromatic hydrocarbons which have been shown to cause cancer and respiratory damage in laboratory animals. See Section 11 for additional toxicological data.

**Signs and Symptoms of Exposure:**

Repeated or prolonged exposure may cause skin disorders such as dermatitis (reddening, itching, cracking, inflammation), folliculitis, acne-like lesions, bronchitis, pneumonitis (inflammation of the lungs), reduced appetite, abnormal fatigue.

**Medical Conditions Aggravated by Exposure:**

Pre-existing medical conditions that may be aggravated by exposure include disorders of the eye, skin and/or lung (including asthma and/or other breathing disorders).

**SECTION 4. FIRST AID MEASURES****Eyes:**

Immediately flush eye(s) with plenty of clean water for at least 15 minutes, while holding the eyelid(s) open. Occasionally lift the eyelid(s) to ensure thorough rinsing. Beyond flushing, do not attempt to remove material from the eye(s). Contact a physician if irritation persists or later develops. Thermal burns require immediate medical attention.

**Skin:**

Hot Material: Remove contaminated clothing, if possible, and immediately flush skin in cool water for at least 15 minutes. Iced water or cold packs may be applied to burned area. Do not attempt to remove material from a burn. Get immediate medical attention. Cold Material: Clean exposed skin with soap or mild detergent and large amounts of water until all material is removed from the skin. Do not use solvents or thinners to remove material from skin.

**Inhalation:**

Remove person to fresh air. If lung irritation persists or later develops, contact a physician. If not breathing, initiate rescue breathing, give oxygen by trained personnel and get immediate medical attention. Do not attempt to rescue victim from confined spaces without adequate protective equipment.

**Ingestion:**

If swallowed, do not induce vomiting. Drink a large volume of water and get immediate medical attention. Never give anything by mouth to an unconscious person. If vomiting occurs, keep head lower than hips to prevent aspiration.

**Notes to Physician:**

In general, emesis induction is unnecessary in high viscosity, low volatility products. Inhalation exposure of hydrogen sulfide may result in pulmonary congestion. Patients may be predisposed to pneumonia during convalescence, and should be kept under observation. Contact a Poison Center for additional treatment information.

**For emergencies, contact 1 800 424 9300 Chemtrec, 24 hours/day, 7 days/week.**

**SECTION 5. FIREFIGHTING MEASURES****Flash Point (Method Used):**

Product: Not available.  
Asphalt: 575°F (min). COC

**Flammable Limits:**

LEL: Not applicable                      UEL: Not applicable

**Autoignition Temperature:**

650 F

**Extinguishing Media:**

Dry chemical or foam preferred. Water fog may be used on flat surfaces such as roads. Use water spray to keep fire-exposed containers cool. Adding water to hot asphalt presents an explosion hazard.

**Special Firefighting Procedures:**

Avoid breathing irritating and potentially toxic fumes, including hydrogen sulfide gas. Firefighters should wear NIOSH/MSHA approved positive pressure breathing apparatus (SCBA) with full face mask and full protective equipment.

**Unusual Fire and Explosion Hazards:**

Do not heat above flash point. Fumes/vapors can explode when concentrated in an enclosed environment and supplied with an ignition source. Never weld or use a cutting torch or open flame on a full, partially full or empty bin, hopper, or other container that holds or has held asphaltic material unless precautions are taken to prevent explosion. Adding water to hot asphalt presents an explosion hazard.

WARNING: Hydrogen sulfide (H<sub>2</sub>S) and other hazardous gases/vapors may evolve and collect in the headspace of storage tanks or other enclosed vessels, and can create an explosive, toxic, or oxygen deficient atmosphere. H<sub>2</sub>S gas is extremely flammable and can explode if an ignition source is provided. See Sections 3 and 11 for health effects of H<sub>2</sub>S gas.

**SECTION 6. ACCIDENTAL RELEASE MEASURES****Precautions if Material is Spilled or Released:**

Ventilate area and avoid emission inhalation or skin contact by using appropriate precautions outlined in this MSDS (see Section 8). Keep all sources of ignition at least 50 feet away. Prevent materials from entering streams, drainages, or sewers. Spills entering surface waters or sewers entering/leading to surface waters must be reported to the National Response Center 1-800-424-8802. Based on volume and use, components of this product may be subject to reporting requirements of Title III of SARA, 1986, and 40 CFR 372.

**For emergencies, contact 3E Company at 1-866-401-5424 (24 hours/day, 7 days/week).**

**Waste Disposal Methods:**

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

**Environmental Precautions:**

Stop leak and contain spilled material with sand, aggregate fines, or other inert adsorbent. Collect adsorbed product and clean up materials in appropriate container for proper disposal. Notify proper authorities.

**SECTION 7. HANDLING AND STORAGE****Storage:**

Store away from all ignition sources and open flames in accordance with applicable laws and regulations.

Vapors containing hydrogen sulfide may accumulate during storage or transport of asphaltic materials. When petroleum asphalt products are heated, potentially irritating emissions (fumes, mists, vapors) may be released.

**Handling:**

Follow personal protection and protective controls set forth in Section 8 of this MSDS when handling this product. If personnel must enter a tank or other confined space that contained this material, follow the OSHA Confined Space Entry Program as specified in 29 CFR 1910.146. Do not store near food, beverages or smoking materials. Avoid personal contact with heated material.

Do not attempt to clean empty containers since residue is difficult to remove. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition as they may explode and cause injury or death.

Tripping accidents have occurred because of asphalt buildup on bottoms of shoes and boots; buildup should be removed regularly to prevent such accidents. Do not use solvents or thinners to clean footwear.

**SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION****Legend:**

NE = Not Established; PEL = Permissible Exposure Limit; TLV = Threshold Limit Value; REL = Recommended Exposure Limit; OSHA = Occupational Safety and Health Administration; MSHA = Mine Safety and Health Administration; NIOSH = National Institute for Occupational Safety and Health; ACGIH = American Conference of Governmental Industrial Hygienists

Component	OSHA/MSHA PEL	ACGIH TLV	NIOSH REL
Asphalt Fumes	NE	0.5 mg/m <sup>3</sup> (as benzene-soluble aerosol)	REL-Ceiling 5 ppm
Ammonia (NH <sub>3</sub> )	PEL 50 ppm	TLV 25 ppm TLV-STEL 35 ppm	REL 25 ppm REL-Ceiling 35 ppm
Carbon Monoxide (CO)	PEL 50 ppm	25 ppm	REL 35 ppm REL-Ceiling 200 ppm
Hydrogen Sulfide (H <sub>2</sub> S)	PEL-Ceiling 20 ppm	TLV 10 ppm TLV-STEL 15 ppm	REL-Ceiling 10 ppm
Nitrogen Dioxide (NO <sub>2</sub> )	PEL-Ceiling 5 ppm	TLV 3 ppm TLV-STEL 5 ppm	REL-STEL 1 ppm
Ozone (O <sub>3</sub> )	PEL 0.1 ppm	0.05 ppm	REL-Ceiling 0.1 ppm
Sulfur Dioxide (SO <sub>2</sub> )	PEL 5 ppm	TLV 2 ppm TLV-STEL 5 ppm	REL 2 ppm REL-STEL 5 ppm

<p><b>Eye Protection:</b> Use a full-face shield and chemical safety goggles if handling heated material. Safety glasses with side shields should be worn as minimum protection at ambient temperatures. Contact lens should not be worn when eye contact with product is possible.</p>
<p><b>Skin Protection (Protective Gloves/Clothing):</b> Avoid skin contact with material by wearing impervious gloves and protective clothing. With product at ambient temperatures, use disposable nitrile, neoprene or butyl rubber material. When handling hot material, use heat-resistant gloves. Use insulated, heat-resistant clothing as necessary.</p>
<p><b>Respiratory Protection:</b> Not expected to be necessary under normal use and working conditions. All respirators must be NIOSH-approved for the exposure levels present. (See NIOSH Respirator Selection Guide). The need for respiratory protection should be evaluated by a qualified safety and health professional. For air-contaminant concentrations which exceed or are likely to exceed applicable exposure limits, use a NIOSH-approved, contaminant-specific, air-purifying respirator. If such conditions are sufficiently high that the air-purifying respirator is inadequate, or if oxygen adequate to sustain life is not present, use a positive-pressure, self-contained breathing apparatus. Respirator use must comply with applicable MSHA (42 CFR 84) or OSHA (29 CFR 1910.134) standards, which include provisions for a user training program, respirator inspection, repair and cleaning, respirator fit testing, medical surveillance and other requirements.</p>
<p><b>Engineering Controls:</b> General dilution or local exhaust ventilation as required to maintain exposures below appropriate exposure limits. Use only in well-ventilated areas. Activities with dried/hardened product that generate dust require the use of general ventilation, local exhaust and/or wet suppression methods to maintain exposures below appropriate exposure limits.</p>
<p><b>Other:</b> It is recommended that asphalt emissions be monitored regularly to determine exposure levels. Exposure levels in excess of appropriate exposure limits must be reduced by all feasible engineering controls, including (but not limited to), ventilation, process enclosure, and/or enclosed employee workstations.</p> <p>Wash hands before eating, drinking, smoking, and/or using toilet facilities. A clean water supply for emergency first aid and washing facilities should be readily available. Do not use solvents or thinners to remove material from skin. Laundering clothing between uses is recommended.</p>

<b>SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES</b>		
<b>Boiling Point:</b> 100°C	<b>pH:</b> >6	<b>Specific Gravity (H<sub>2</sub>O = 1):</b> 1.0 - 1.1 @ 60°F
<b>Evaporation Rate (Butyl Acetate = 1):</b> Not available	<b>Melting Point:</b> 165 -175 f	<b>Vapor Pressure (mm Hg.):</b> Not available
<b>Solubility in Water:</b> Appreciable	<b>Vapor Density (Air = 1):</b> 1	<b>% Volatile:</b> None
<b>Appearance and Odor:</b> <b>Brown to Black with coffee like odor.</b>		

<b>SECTION 10. STABILITY AND REACTIVITY</b>
<p><b>Stability:</b> Stable under normal temperatures and pressures.</p>
<p><b>Conditions to Avoid:</b> Keep away from direct flame/ignition sources. Contact with incompatible materials should be avoided (see below). See Sections 5, 6 and 7 for additional information.</p>
<p><b>Incompatibility (Materials to Avoid):</b> Strong oxidizers may react with hydrocarbons. Contact with fluorine may cause burning or explosion. Adding water to hot asphalt presents an explosion hazard.</p>
<p><b>Hazardous Decomposition or Byproducts:</b> Carbon monoxide and other compounds (such as amines, ammonia, nitrogen dioxide, sulfur dioxide, ozone, hydrogen sulfide, and various hydrocarbons) may be released by thermal decomposition. Hazardous vapors can collect in enclosed vessels or areas if not properly ventilated. If hydrogen sulfide is present, the flammable limits range from 4.3 to 45.5% by volume and its presence may promote the formation of pyrophoric (spontaneously igniting) iron compounds (See 29 CFR 1910.146).</p>
<p><b>Hazardous Polymerization:</b> Not known to occur.</p>

## SECTION 11. TOXICOLOGICAL INFORMATION

### Acute Effects:

Asphalt has oral LD50 (rats) >5g/kg.

Petroleum-derived asphalt products should not be confused with “tar” products, which are produced from the destructive distillation of coal. The hydrocarbons in petroleum asphalt are a complex mixture of paraffinic, naphthenic, and aromatic hydrocarbons, including polycyclic aromatic compounds.

Contains or may release hydrogen sulfide (H<sub>2</sub>S) gas. Exposure to H<sub>2</sub>S concentrations above the permissible exposure limit causes irritation of the mucous membranes, headache, dizziness, vomiting, coughing, nasal discharge and pulmonary edema. At levels between 500 and 700 ppm, respiratory paralysis, loss of consciousness and possibly death can occur within 30 to 60 minutes. Exposure to higher concentrations can result in immediate death. Repeated exposure to low levels may also cause eye effects including conjunctivitis and corneal injury. There is no evidence that H<sub>2</sub>S will accumulate in the body tissue after repeated overexposure.

### Effects Following Prolonged or Repeated Exposure:

Prolonged and repeated exposure to asphalt may cause skin disorders such as dermatitis, folliculitis, and acne-like lesions, or more rarely, pigmentation of the skin. Chronic inhalation of high concentrations of asphalt emissions may cause chronic bronchitis and pneumonitis (inflammation of the lungs). In mice, there was damage to the lungs, including bronchitis, pneumonitis, and abscess formation. Guinea pigs and rats showed pneumonitis, peribronchial adenomatosis, and some squamous cell metaplasia.

This material contains heavy vacuum distillates/aromatic extract oils. Repeated dermal application of these oils to experimental animals has been reported to cause skin disorders, effects on the liver, thymus and blood forming organs, as well as fetal death and birth defects.

Repeated exposure to low levels of H<sub>2</sub>S may cause eye effects including conjunctivitis and corneal injury. There is no evidence that H<sub>2</sub>S will accumulate in the body tissue.

### Carcinogenicity:

In March, 1987, the International Agency for Research on Cancer (IARC) classified bitumens (such as petroleum asphalt in this product) as a Group 3 material, "not classifiable as to its carcinogenicity to humans." This classification was made based on inadequate evidence for the carcinogenicity of undiluted air-refined bitumens in experimental animals and inadequate evidence that bitumens alone are carcinogenic to humans. However, asphalt does contain a small amount of polycyclic aromatic hydrocarbons which have been shown to cause cancer and respiratory damage in animals. Based on a 2000 review of health effects literature, NIOSH concluded that roofing asphalt fumes are a potential occupational carcinogen. Repeated breathing of asphalt emissions has not resulted in a carcinogenic response in laboratory animal testing. Although epidemiological studies on asphalt workers have suggested a possible link between asphalt fumes and certain types of cancer, confounding factors such as smoking and concomitant exposure to other agents in the workplace may have influenced the results of these studies. Asphalt is not listed as a carcinogen by the National Toxicology Program (NTP) or the Occupational Safety and Health Administration (OSHA). In 1985, the International Agency for Research on Cancer (IARC) determined that there is inadequate evidence that asphalt alone is carcinogenic to humans. However, IARC states that there is sufficient evidence that extracts (asphalts dissolved in hydrocarbon solvents) are carcinogenic to laboratory animals. Although epidemiological studies on some petroleum products containing polycyclic aromatics suggest the possibility of skin cancer induction in humans, a link between petroleum asphalt exposure and human skin cancer has not been established.

## SECTION 12. ECOLOGICAL INFORMATION

### Aquatic Ecotoxicological Data:

No specific data on this product. The asphalt component may cause damage to aquatic organisms.

### Environmental Fate Data:

Significant migration into the environment and bioaccumulation are unlikely. Expected to be resistant to biodegradation.

### Other:

No specific data on this product.

## SECTION 13. DISPOSAL CONSIDERATIONS

Place contaminated materials in appropriate containers and dispose of in a manner consistent with applicable federal, state, and local regulations. Prevent from entering drainage, sewer systems, and unintended bodies of water. It is the responsibility of the user to determine, at the time of disposal, whether product meets criteria for hazardous waste. Product uses, transformations, mixture and processes, may render the resulting material hazardous.

## SECTION 14. TRANSPORT INFORMATION [Note: Not intended to be all-inclusive.]

### DOT Proper Shipping Name:

Not regulated.

### DOT Hazard Classification:

Not applicable.

### UN/NA Number:

Not regulated.

### DOT Packing Group:

Not applicable.

### Labeling Requirements:

If the shipping temperature of a solid equals or exceeds 464°F, DOT regulation classifies the solid as an “Elevated Temperature Material”, and a “HOT” label is required. Label as required by the OSHA Hazard Communication standard [29 CFR 1910.1200(f)], and applicable state and local regulations.

**SECTION 15. REGULATORY INFORMATION [Note: Not intended to be all-inclusive.]**

**Toxic Substances Control Act (TSCA):**  
The components in this product are listed on the TSCA Inventory or are exempt.

**Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):**  
Releases of this material to water may be reportable to the National Response Center under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or to state and local emergency planning committees under the Superfund Amendments and Reauthorization Act. It is recommended that you contact state and local authorities to determine if there are any local reporting requirements in the event of a spill.

**Superfund Amendments and Reauthorization Act of 1986 (SARA), Title III:**  
Section 302 extremely hazardous substances:  
None  
Section 311/312 hazard categories:  
Immediate Health  
Delayed Health  
Section 313 reportable ingredients at or above the minimums concentrations: None

**California Proposition 65:** The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):  
This product does not contain any Proposition 65 chemicals.

**State Regulatory Lists:**  
Each state may promulgate standards more stringent than the federal government. This section cannot encompass an inclusive list or all state regulations. Therefore, the user should review the components listed in Section 2 and consult state or local authorities for specific regulations that apply.

**SECTION 16. OTHER INFORMATION**

Disclaimer

**NO WARRANTY IS MADE, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE.**

PCT Inc. believe the information contained herein is accurate; however, PCT Inc. makes no guarantees with respect to such accuracy and assumes no liability whatsoever in connection with the use of any information contained herein by any party. The provision of the information contained herein is not intended to be, and should not be construed as, legal advice or as ensuring compliance with any federal, state, or local laws, rules or regulations. Any party using any information contained herein should review all applicable laws, rules and regulations prior to use.

