



MATERIAL SAFETY DATA SHEET

MSDS No. CRF006

Date of Preparation: **April 7, 2011**

Revision No. 1

Section 1 – Chemical Product and Company Information

Product/Chemical Name:	Crafco Laminating Adhesive, Tab Adhesive, Polymer Roofing Asphalt, Polymer Asphalt
Chemical Formula:	Mixture
CAS Number:	Mixture
Other Designations:	Modified Asphalt
General Use:	Road and Roofing Asphalt Sealant
Manufacturer:	CRAFCO, Inc., 420 North Roosevelt Avenue, Chandler, AZ 85226; Phone 602-276-0406; Hours of Operation 7:30 am – 4:30 pm; ERGON 24 Hour Emergency Phone Number 1-800-222-7122; CHEMTREC 1-800-424-9300.

Section 2 – Composition / Information on Ingredients

Ingredient Name	CAS Number	% Vol
Asphalt	8052-42-4	75-95
Vacuum Distillate	64741-53-3	0-10
Petroleum Distillate	64741-96-4	0-10
Styrene-Butadiene Block Copolymer	9003-55-8	0-15
Ethylene-Butadiene Block Copolymer	66070-58-4	0-15

INGREDIENT	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH IDLH
	TWA	STEL	TWA	STEL	TWA	STEL	
Asphalt	None estab.	None estab.	0.5 mg/m ³ (inhalable fraction, as benzene-soluble aerosol)	None estab.	None estab.	5 mg/m ³ (ceiling)	None estab.
Vacuum Distillate	5 mg/m ³ (Oil Mist)	None estab.	5 mg/m ³ (Oil Mist)	10 mg/m ³ (Oil Mist) (ceiling)	5 mg/m ³ (Oil Mist)	10 mg/m ³ (Oil Mist) (ceiling)	2,500 mg/m ³ (Oil Mist)
Petroleum Distillate	5 mg/m ³ (Oil Mist)	None estab.	5 mg/m ³ (Oil Mist)	10 mg/m ³ (Oil Mist) (ceiling)	5 mg/m ³ (Oil Mist)	10 mg/m ³ (Oil Mist) (ceiling)	2,500 mg/m ³ (Oil Mist)
Styrene-Butadiene Block Copolyme	None estab.	None estab.	None estab.	None estab.	None estab.	None estab.	None estab.
Ethylene-Butadiene Block Copolymer	None estab.	None estab.	None estab.	None estab.	None estab.	None estab.	None estab.

Section 3 – Hazards Information

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: Exposure to product fumes, vapors, or mists in concentrations above the PEL/TLV may lead to systemic symptoms (salivation, vomiting, respiratory difficulties, dizziness, headache, loss of papillary reflexes, cyanosis, hypothermia, and mild convulsions).

Inhalation: Exposure to product fumes, vapor and dust may result in irritation to the respiratory tract.

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Prolonged exposure in excess of the permissible exposure air concentrations may result in acute toxic effects such as respiratory difficulty, convulsions, central nervous system effects and possible cardiovascular collapse.

Eye: Exposure to product fumes, vapors or mists may cause irritation. Liquid exposure may cause irritation. Symptoms may include a burning sensation, intolerance to light, redness/swelling/tearing, and possible erosion of the surface of the cornea. Direct contact with hot material will cause thermal burns and possible blindness.

Skin: Skin contact may cause irritation which when accentuated by sunlight may result in a phototoxic reaction. Prolonged and repeated liquid contact may result in dermatitis, folliculitis, oil acne or skin tumors. Absorption through the skin may cause liver damage. Contact with hot material will cause thermal burns.

Ingestion: None expected. Ingestion of hot material will cause thermal burn. Ingestion may cause irritation of the gastrointestinal tract followed by one or more of the following: nausea, vomiting, blockage, and diarrhea.

Carcinogenicity: The International Agency for Research on Cancer (IARC), the National Toxicology Material Program (NTP), the Occupational Safety and Health Administration (OSHA) and the National Institute for Occupational Safety and Health (NIOSH) have determined that there is significant evidence that coal tar products are carcinogenic in humans and animals and aromatic oils are carcinogenic in animals. IARC and NTP have concluded that certain polycyclic aromatic hydrocarbons (i.e. Chrysene, Benz(a)Anthracene and Flouanthene) are probably carcinogenic in humans (Group 2B).

Medical Conditions Aggravated by Long-Term Exposure: Individuals with chronic respiratory or pre-existing skin disorders may be adversely affected by exposure to product fumes, vapors or mists. Persons with a history of liver disease, kidney disease or central nervous system depression are at a greater than normal risk of developing adverse health effects when working with this product.

Chronic Effects: Inhalation of fumes, vapors or mists over a prolonged period of time may present a lung cancer hazard. Prolonged and repeated skin contact in the absence of recommended hygiene practices may cause oil acne, folliculitis, and more serious skin disorders (i.e. changes in skin pigmentation, ulcerations, benign skin growths, skin cancer).

Section 4 – First Aid Measures

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

Eye Contact: Flush eyes immediately with large amount of water for at least 15 minutes. Seek medical attention.

Skin Contact: Remove all contaminated clothing and wash exposed area thoroughly with non-abrasive soap and water.

Ingestion: If person is conscious, first induce vomiting to prevent further absorption. After vomiting, the victim may be given a slurry of 100g of activated charcoal in 8 ounces of water. Do not give anything by mouth to an unconscious person. Seek medical attention.

Section 5 – Fire Fighting Measures

Flash Point: >400EF minimum

Flash Point Method: Unknown

Auto Ignition Temperature: >700EF

LEL: Not determined.

UEL: Not determined.

Flammability Classification: Class IIIB

Extinguishing Media: CO₂, dry chemical foam and water spray.

Unusual Fire or Explosion Hazards: Material is not a combustible liquid per the OSHA Hazard





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Communication Standard, but will ignite and burn at temperatures exceeding the flash point. Closed containers may explode when exposed to extreme heat. Water spray may cause frothing.

Hazardous Combustion Products: Carbon monoxide, carbon dioxide, sulfur dioxide, hydrogen sulfide. Upon decomposition (burning), may emit toxic fumes/vapors with can form flammable/explosive mixtures in air.

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 appears.

Section 6 – Accidental Release Matters

Spill/Leak Procedures: Stop spill at source if possible without hazard. Remove sources of heat or ignition. Avoid breathing vapors, mists or fumes. Avoid skin contact. Cleanup personnel should be provided with appropriate clothing. Contain spilled material by diking/berming with absorbent solids such as sand or soil. Do not release runoff into sewers or waterways. In cases involving release to the environment such as a waterway of the United States, contact the National Response Center at 1-800-424-8802. In Canada, report releases to the appropriate Provincial authorities.

Section 7 – Handling and Storage

Handling Precautions: Unheated material presents no known hazards. Avoid prolonged or repeated contact with the skin or breathing fumes, vapors or mists. Wear appropriate protective equipment when performing maintenance on contaminated equipment. Exercise good personal hygiene including the removal of contaminated clothing and prompt washing with soap and water.

Storage Requirements: Ground and bond all transfer and storage equipment. Store in properly closed, labeled containers away from sources of ignition. Store containers in a well ventilated, clean and dry area.

Regulatory Requirements: None known.

Section 8 – Exposure Controls / Personal Protection

Engineering Controls: Use local or exhaust ventilation in all enclosed areas or if there is inadequate ventilation to control exposure.

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: Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/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 at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

Protective Clothing/Equipment: Wear protective gloves, boots, aprons, and gauntlets as need 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.



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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, or smoking.

Section 9 – Physical and Chemical Properties

Physical State: Solid at room temperatures. Liquid above the softening point.

Appearance and Odor: Black, Dark Brown/Petroleum

Odor Threshold: Not available

Vapor Pressure: Not available.

Vapor Density (Air = 1): Not available.

Formula Weight: Not available.

Density: Not available.

Specific Gravity (H₂O = 1): 1.0-1.9

pH: Not available.

Water Solubility: Not soluble.

Other Solubilities: No data.

Boiling Point: >800° F

Freezing/Melting Point: Not available.

Viscosity: Not available.

Refractive Index: No data.

Surface Tension: No data.

% Volatile: <1%

Evaporation Rate: Not available.

Section 10 – Stability and Reactivity

Stability: Stable at room temperature in closed containers under normal storage and handling conditions.

Polymerization: Will not occur.

Chemical Incompatibilities: Strong oxidizing agents such as chlorates, nitrates and peroxides.

Conditions to Avoid: None known.

Hazardous Decomposition Products: Carbon monoxide, hydrogen sulfide, aldehydes, aromatics. Irritating and/or toxic fumes may be released if burned.

Section 11 – Toxicological Information

Eye Effects: Not known.

Skin Effects: Not known.

Acute Inhalation Effects: Not known.

Acute Oral Effects: Asphalt Cement - Rat, oral, LD₅₀: 5-15 mg/kg

Carcinogenicity: There is inadequate evidence that bitumens alone are carcinogenic to humans. There is sufficient evidence for the extracts of steam-refined bitumens, air-refined bitumens, and pooled mixtures of steam- and air- refined bitumens in experimental animals. There is inadequate evidence for the carcinogenicity of undiluted air-refined bitumens in experimental animals. There is limited evidence for the carcinogenicity of undiluted steam-refined bitumens and for cracking residue in experimental animals.

Mutagenicity: No data.

Teratogenicity: No data.

Chronic Effects: No data.

Section 12 – Ecological Information

Ecotoxicity: Product can foul shoreline and be toxic to aquatic life.

Environmental Fate:

Environmental Transport: No data.

Environmental Degradation: No data.

Soil Absorption/Mobility: No data.

Section 13 – Disposal Considerations

This product, as supplied, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261). Under the Resource Conservation and Recovery Act (RCRA), it is the



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responsibility of the user to determine, at the time of disposal, whether the material is a hazardous waste subject to RCRA.

The transportation, storage, treatment, and disposal of RCRA waste material must be conducted in compliance with 40 CFR 262, 263, 264, 268 and 270. Disposal can only occur in properly permitted facilities. Check state and local regulations for any additional considerations, as these may be more restrictive than federal laws and regulations. Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Disposal of this material must be conducted in compliance with all federal, state and local regulations.

Empty containers retain product residue (liquid and/or vapor) and can be dangerous. Do not expose such containers to heat, flame, sparks, static electricity or other sources of ignition. Recommend using a non-hazardous solvent to remove the product. Follow federal, state and local regulations for the disposal of the waste material, regardless of its classification.

Section 14 – Transport Information

Ambient Temperature Material (Solid)

Shipping Name: Not Regulated	Packaging Authorizations:	Quantity Limitations:
Shipping Symbols: NA	a) Exceptions: NA	a) Passenger, Aircraft, or Railcar: NA
Hazard Class: NA	b) Non-bulk Packaging: NA	b) Cargo Aircraft Only: NA
ID No.: NA	c) Bulk Packaging: NA	Vessel Stowage Requirements:
Label: NA		a) Vessel Stowage: NA
Special Provisions (172.102): NA		b) Other: NA

Hot Material (above 212°F)

Shipping Name: Elevated Temperature Liquid N.O.S	Packaging Authorizations:	Quantity Limitations:
	a) Exceptions: NA	a) Passenger, Aircraft, or Railcar: Forbidden
Shipping Symbols: "HOT" 3257	b) Non-bulk Packaging: NA	b) Cargo Aircraft Only: Forbidden
Hazard Class: 9	c) Bulk Packaging: 173.247	Vessel Stowage Requirements:
ID No.: UN3257		a) Vessel Stowage: A
Packing Group: PG III		b) Other: 85
Label: Class 9A		
Special Provisions (172.102): IB1, T3, TP3, TP29		

Section 15 – Regulatory Information

EPA Regulations: This product and/or its components are listed on the TSCA Chemical Inventory. Additional reporting (Tier II, Tier I, or Chemical Release Reporting) may be required.

RCRA

RCRA Hazardous Waste Number: Not listed.

RCRA Hazardous Waste Classification (40 CFR 261): This material should not be hazardous due to characteristics.



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CERCLA

CERCLA: Not listed.

CERCLA Reportable Quantity (RQ): This material, in its solid form, is not a listed hazardous substance and does not have a reportable quantity. However, if spilled in liquid form into waters of the U.S., it may be reportable under the Clean Water Act.

SARA

SARA 311/312 Codes: Fire–No, Pressure–No, Reactivity–No, Immediate (acute)–Yes, Delayed (chronic)–Yes.

SARA Toxic Chemical: Not listed.

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

OSHA Regulations

Hazard Communication Standard (29 CFR 1910.1200): Yes

Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): See Table in Section 2.

OSHA Specifically Regulated Substance: No

State Regulations: Listed in state hazardous substance list for CA and MN as Asphalt (petroleum fumes; FL, MA, NJ, as Asphalt fumes; and PA as Asphalt.

Section 16 – Other Information

Revision Notes: Revised April 7, 2011

Additional Hazard Rating Systems:

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