



MATERIAL SAFETY DATA SHEET

MSDS No. CRF030

Date of Preparation: **April 14, 2010**

Revision No.1

Section 1 – Chemical Product and Company Information

Product/Chemical Name:	Crafcro Roadsaver, Polyflex, Parking Lot, Asphalt Rubber, DF, Superflex, Loop Detector, Pavement Joint Adhesive, Polyfiber, Fiber Asphalt, Marker Adhesive Products, Quikstix
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	40-95
Hydrotreated Heavy Naphthenic Distillate	64742-52-5	0-15
Styrene-Butadiene Block Copolymer	9003-55-8	0-15
Ethylene-Butadiene Block Copolymer	66070-58-4	0 -15.0
Vulcanized Rubber Compound	N/A	0-25
Polyester Fibers	25038-59-9	0-10
Mineral Filler (Limestone)	1317-36-3, 1317-65-3	0-50

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.
Hydrotreated Heavy Naphthenic 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 Copolymer	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.
Vulcanized Rubber Compound	None estab.	None estab.	None estab.	None estab.	None estab.	None estab.	None estab.
Polyester Fibers	None estab.	None estab.	None estab.	None estab.	None estab.	None estab.	None estab.
Limestone	5 mg/m ³ (respirable particulate)	None estab.	10 mg/m ³ (respirable dust)	None estab.	5 mg/m ³ (respirable particulate)	None estab.	None estab.

Section 3 – Hazards Information

EMERGENCY OVERVIEW

POTENTIAL HEALTH EFFECTS

HMIS H-2 F-1 R-0 PPE* * Sec.8
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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. 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: Based on OSHA 1910.1200 and IARC study requirements, this product does not require labeling. Meets EU requirement of less than 3% (w/w) DMSO extract for total polycyclic aromatic compound (PAC) using IP 346. NTP and OSHA do not list this product as a potential carcinogen.

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: 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.

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Section 5 – Fire Fighting Measures

Flash Point: >400°F minimum
Flash Point Method: Unknown
Auto Ignition Temperature: >700°F
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 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. **Use self-contained, positive-pressure, breathing apparatus (SCBA) when this product is used in a confined or enclosed space and exposure limits are exceeded or hydrogen sulfide concentration is unknown or exceeds 20 ppm.** Organic vapor respirators may be used with good ventilation when organic



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vapors are less than 1000 ppm or ten times permissible exposure limit, whichever is less. For emergency or non-routine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA until it is determined that a hazardous atmosphere and/or oxygen deficient atmosphere is NOT PRESENT. 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 evaluation; 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; and an evaluation of the effectiveness of the respiratory program.

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.

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

Table with 2 columns: Physical State, Appearance and Odor, Odor Threshold, Vapor Pressure, Vapor Density (Air = 1), Formula Weight, Density, Specific Gravity (H2O = 1), pH, Water Solubility, Other Solubilities, Boiling Point, Freezing/Melting Point, Viscosity, Refractive Index, Surface Tension, % Volatile, Evaporation Rate.

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



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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 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:

a) Exceptions: NA

a) Passenger, Aircraft, or

Shipping Symbols: NA

b) Non-bulk Packaging: NA

Railcar: NA

Hazard Class: NA

c) Bulk Packaging: NA

b) Cargo Aircraft Only: NA

ID No.: NA

Vessel Stowage

Label: NA

Requirements:

Special Provisions (172.102): NA

a) Vessel Stowage: NA

b) Other: NA



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Hot Material (above 212°F)		
Shipping Name: Elevated Temperature Liquid N.O.S	Packaging Authorizations: a) Exceptions: NA b) Non-bulk Packaging: NA c) Bulk Packaging: 173.247	Quantity Limitations: a) Passenger, Aircraft, or Railcar: Forbidden b) Cargo Aircraft Only: Forbidden
Shipping Symbols: "HOT" 3257		
Hazard Class: 9		
ID No.: UN3257		Vessel Stowage Requirements: a) Vessel Stowage: A b) Other: 85
Packing Group: PG III		
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.

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:

Additional Hazard Rating Systems:

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