



Date of Preparation: 01/02/04

### Section 1 - Chemical Product and Company Identification

**Product Name:** CrafcO Flushing Oil  
**Chemical Family:** Aromatic Hydrocarbons and Aromatic Oils  
**Chemical Formula:** Mixture  
**CAS Number:** Mixture  
**Manufacturer:** CRAFCO, Inc., 420 N. Roosevelt Chandler, AZ 85226

**EMERGENCY TELEPHONE NUMBERS:** 1(602) 276-0476 Normal Business Hours  
 Chemtrec 1(800) 424-9300 After Business Hours

### Section 2 - Composition / Information on Ingredients

Ingredient Name	CAS Number	% wt.
Refined Tar	65996-93-2	40-70%
Distillates, Heavy Thermal Cracked	64741-81-7	40-70%
Sulfur Compounds	Mixture	0.3-3.0%
Flouranthene	206-44-0	0.7-2.0%
Chrysene	218-01-9	0.7-2.0%
Benz(A)Anthracene	56-55-3	0.7-2.0%

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH
	TWA	STEL	TWA	STEL	TWA	STEL	IDLH
Refined Tar	0.2 mg/m3	N.E.	0.2mg/m3	N.E.	N.E.	N.E.	N.E.
Distillates	N.E.	N.E.	N.E.	N.E.	N.E.	N.E.	N.E.
Sulfur	N.E.	N.E.	N.E.	N.E.	N.E.	N.E.	N.E.
Fluoranthene	N.E.	N.E.	N.E.	N.E.	N.E.	N.E.	N.E.
Chrysene	N.E.	N.E.	N.E.	N.E.	N.E.	N.E.	N.E.
B. Anthracene	N.E.	N.E.	N.e.	N.E.	N.E.	N.E.	N.E.
N.E.- none established							

### 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

**Inhalation:** Exposure to product fumes, vapors or mists 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.

**Eyes:** 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.

**Skin:** Short-term contact with the skin can result in irritation which when accentuated by sunlight may result in a phototoxic reaction. Prolonged and repeated liquid contact can cause dermatitis, folliculitis, oil acne or skin tumors. Absorption through the skin may cause liver damage.

**Ingestion:** Ingestion may cause irritation of the gastrointestinal tract followed by one or more of the following: nausea, vomiting, abdominal discomfort. Significant ingestion could result in liver damage.

**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.

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

**Effects of Chronic Exposure:** 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 (e.g. changes in skin pigmentation, ulcerations, benign skin growths, skin cancer).

**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 sufficient 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 Fluoranthene) are probably carcinogenic in humans (Group 2B).

### 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 amounts of water for at least 15 minutes. Seek medical attention.

**Skin Contact:** Remove all contaminated clothing and wash exposed area thoroughly with nonabrasive 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:** >300F

**Autoignition Temperature:** Not determined

**Lower Explosive Level (LEL):** Not determined

**Upper Explosive Limit (UEL):** Not determined

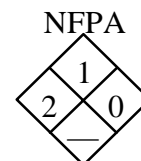
**Flammability Classification:** Class IIIB Combustible

**Extinguishing Media:** CO<sub>2</sub>, dry chemical, foam, 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.

**Combustion Products:** Carbon Monoxide, Carbon Dioxide, Sulfur Dioxide, Hydrogen Sulfide. Upon decomposition (burning), may emit toxic fumes/vapors which can form flammable/explosive mixtures in air.

**Fire-Fighting Instructions and Equipment:** Do not release runoff from fire control methods to sewers or waterways. Use a foam or water spray to cool fire-exposed containers. Use self-contained breathing apparatus and full protective equipment where heavy smoke appears.



### Section 6 - Accidental Release Measures

**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 to 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. This material is a hazardous waste as defined in RCRA.

### Section 7 - Handling and Storage

**Handling and Storage Precautions:** Avoid prolonged or repeated contact with the skin or breathing fumes, vapors or mists. Use appropriate grounding and bonding practices. Wear appropriate protective equipment when performing maintenance on contaminated equipment. Store in properly closed, labeled containers away from sources of ignition. Store containers in a well ventilated, clean and dry area. Store containers at less than 100F and out of direct sunlight.

**Work / Hygienic Practices:** Exercise good personal hygiene including removal of contaminated clothing and prompt washing with soap and water.

## Section 8 - Exposure Controls / Personal Protection

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

**Eye / Face Protection:** Safety glasses or goggles and face shield where splashing may occur. Wear protective eyeglasses including side shield 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.

**Skin Protection:** Full industrial-type clothing closed at the neck and sleeves. Wear chemical resistant gloves (e.g. nitrile, Viton, Tyvek/ Saranex 23) and chemical resistant footwear and coveralls. Use of barrier creams (sunscreens) maybe beneficial

**Respiratory Protection:** Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear an MSHA/NIOSH approved respirator. Select respirator based on its suitability to provide maximum worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or non-routine 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 and sanitary storage areas.

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

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance:** Brown viscous liquid

**Odor:** Aromatic

**Odor Threshold:** Noticeable

**Vapor Pressure:** Not available

**Vapor Density:** Not available

**Specific Gravity (H<sub>2</sub>O=1):** 1.15-1.25

**Water Solubility:** Negligible

**Boiling Point:** Not available

**Melting Point:** Not available

**% Volatile:** Not available

**Evaporation Rate:** Not available

**pH:** 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 (Stability):** 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

**Acute Studies:** None known

**Eye Effects:** Not known

**Skin Effects:** Lifetime skin painting studies with materials similar to major components of Crafco Flushing Oil have produced tumors following prolonged and repeated skin contact. Repeated dermal application of these materials (30 MG/KG/Day for 13 weeks) resulted in anemia, liver degeneration, and injury to bone marrow and lymphoid tissues. Treatment related mortality and body weight reduction was observed at 500 MG/KG. Repeated dermal application (125 MG/KG/Day) of these materials to pregnant rats during gestation produced maternal and fetal toxicity. Increased resorptions were observed at doses of 30 MG/KG/Day and above.

**Acute Oral Effects:** None known

**Acute Inhalation Effects:** None known

## Section 12 - Ecological Information

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

**Environmental Transportation:** No data

**Environmental Degradation:** No data

**Soil Absorption /Mobility:** No data

### Section 13 - Disposal Considerations

Under the Resource Conservation and Recovery Act, 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 occur only in properly permitted facilities. Check state and local regulations for any additional requirements, 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 on 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 pressurize, cut, weld, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity or other sources of ignition. They may explode and cause injury or death. Recommend using a no-hazardous solvent to remove the product. Follow Federal, state and local regulations for the disposal of the waste material, regardless of its' waste classification.

### Section 14 - Transport Information

**Ambient Temperature Material**

**Proper Shipping Name:** Not regulated by D.O.T.

**Hazard Class:** Not applicable

**DOT ID No.:** Not applicable

**DOT Shipping Label:** Not applicable

**Hot Material (above 212F)**

**Proper Shipping Name:** Elevated Temperature Liquid N.O.S.

**Hazard Class:** 9

**Packing Group:** PG III

**Labels Required:** Class 9

**Placards Required:** "HOT" UN3257

### Section 15 - Regulatory Information

**U.S. Federal Regulatory Information:**

OSHA Hazard Communication Standard (CFR 1910.1200)	Yes
SARA 311 Categories:	
Immediate (Acute) Health Effects	Yes
Delayed (Chronic) Health Effects	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactivity Hazard	No

**EPA/TSCA Status:** This product and/or its components are listed on the TSCA Chemical Inventory.

Additional reporting (Tier II, Tier I or Toxic Chemical Release Reporting) may be required.

**State Regulations:** This product contains substances considered by the State of California as known to cause cancer. This product may be regulated by Louisiana's Right to Know Law. Review applicable state regulations to determine the regulatory status of this product.

### Section 16 - Other Information

**NFPA Hazard Rating**

- Health	2 Moderate
- Fire	1 Slight
- Reactivity	0 Least

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**Phone:** (602) 276-0476

**Preparation Date:** 10/01/03

**Supersedes MSDS Dated:** 03/12/03

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