MSDS Document

Product 470 Oil

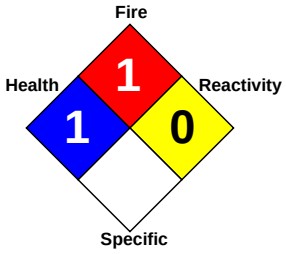
1. Chemical Product and Company Identification

Product 470 Oil

MSDS ID PEN1300-00-C

Manufacturer
Calumet Specialty Products Partners
2780 Waterfront Pkwy E. Suite 200
Indianapolis, IN 46214

Phone Number
(800) 245-3952
Emergency Phone
CHEMTREC (800) 424-9300
CHEMTREC International (703) 527-3887
Revision Date 11/1/2006



2. Composition and Information on Ingredients

Ingredient	CAS Number	Weight %	ACGIH TLV	PEL	STEL
Distillates, petroleum, sweetened middle	64741-86-2	100 %			

3. Hazard Identification

Potential Health Effects:

Eye:
Contact may cause mild eye irritation including stinging, watering, and redness.

Skin:
Mild to moderate skin irritant. Contact may cause redness, itching, burning, and skin damage. Prolonged or repeated contact may cause drying and cracking of the skin, dermatitis (inflammation), burns, and severe skin damage. No harmful effects from skin absorption are expected.

Inhalation (Breathing):
No information available. Studies by other exposure routes suggest a low degree of toxicity by inhalation.

Ingestion (Swallowing):
No harmful effects expected from ingestion.

Signs & Symptoms:
Effects of overexposure may include irritation of the respiratory tract, irritation of the digestive tract, nausea, diarrhea, transient excitation followed by signs of nervous system depression (e. g., headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue).

Pre-Existing Medical Conditions:
Conditions aggravated by exposure may include skin disorders.

See Section 11 for additional Toxicity Information.

4. First Aid Information

Eye:
If irritation or redness develops from exposure, flush eyes with clean water. If symptoms persist, seek medical attention.

Skin:
Remove contaminated shoes and clothing, and flush affected area(s) with large amounts of water. If skin surface is damaged, apply a clean dressing and seek medical attention. If skin surface is not damaged, cleanse affected area(s) thoroughly by washing with mild soap and water. If irritation or redness develops, seek medical attention.

Inhalation (Breathing):
First aid is not normally required. If breathing difficulties develop, move victim away from source of exposure and into fresh air. Seek immediate medical attention.

Ingestion (Swallowing):
Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. If victim is drowsy or unconscious and vomiting, place on the left side with the head down. If possible, do not leave victim unattended and observe closely for adequacy of breathing. Seek medical attention. First aid is not normally required; however, if swallowed and symptoms develop, seek medical attention.

5. Fire Fighting Measures

Flash Point	>225°F / >107°C
FP Method	PMCC, ASTM D93, EPA

Unusual Fire & Explosion Hazards:
This material may burn, but will not ignite readily. If container is not properly cooled, it can rupture in the heat of a fire. Vapors are heavier than air and can accumulate in low areas.

Extinguishing Media:
Dry chemical, carbon dioxide, foam, or water spray is recommended. Water or foam may

cause frothing of materials heated above 212°F. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.

Fire Fighting Instructions:
For fires beyond the incipient stage, emergency responders in the immediate hazard area should wear bunker gear. When the potential chemical hazard is unknown, in enclosed or confined spaces, or when explicitly required by DOT, a self contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8).

Isolate immediate hazard area, keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Move undamaged containers from immediate hazard area if it can be done with minimal risk.

Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Cool equipment exposed to fire with water, if it can be done with minimal risk. Avoid spreading burning liquid with water used for cooling purposes.

See Section 9 for Flammable Properties including Flash Point and Flammable (Explosive) Limits

6. Accidental Release Measures

Personal Precautions:
This material may burn, but will not ignite readily. Keep all sources of ignition away from spill/release.

Spill precautions:
Stay upwind and away from spill/release. Notify persons down wind of the spill/release, isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Wear appropriate protective equipment, including respiratory protection, as conditions warrant (see Section 8).

Environmental precautions:
Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems, and natural waterways. Dike far ahead of spill for later recovery or disposal. Spilled material may be absorbed into an appropriate absorbent material.

Methods for cleaning up:
Immediate cleanup of any spill is recommended. Notify fire authorities and appropriate federal, state, and local agencies. If spill of any amount is made into or upon navigable waters, the contiguous zone, or adjoining shorelines, notify the National Response Center (phone number 800-424-8802).

7. Handling and Storage

Handling:
Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276 and 29CFR 1910.146. The use of appropriate respiratory protection is advised when concentrations exceed any established exposure limits (see Section 8).

Do not wear contaminated clothing or shoes. Use good personal hygiene practices.

"Empty" containers retain residue and may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury or death. "Empty" drums should be completely drained, properly bunged, and promptly shipped to the supplier or a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

Storage:
Keep container(s) tightly closed. Use and store this material in cool, dry, well-ventilated areas away from heat and all sources of ignition. Store only in approved containers. Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage.

8. Exposure Controls and Personal Protection

ACGIH:	OSHA:	Other:
NE	NE	100 mg/m3 TWA ConocoPhillips

Note: State, local or other agencies or advisory groups may have established more stringent limits. Consult an industrial hygienist or similar professional, or your local agencies, for further information.

1%=10,000 PPM.
NE=Not Established

Engineering Controls:
If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits (see Section 2), additional engineering controls may be required.

Personal Protective Equipment (PPE):

Eye/Face:
Approved eye protection to safeguard against potential eye contact, irritation, or injury is recommended. Depending on conditions of use, a face shield may be necessary.

Skin:
The use of gloves impervious to the specific material handled is advised to prevent skin contact, possible irritation, and skin damage (see glove manufacturer literature for information on permeability). Depending on conditions of use, apron and/or arm covers may be necessary.

Respiratory:
A NIOSH certified air purifying respirator with an organic vapor cartridge may be used under conditions where airborne concentrations are expected to exceed exposure limits (see Section 2).

Protection provided by air purifying respirators is limited (see manufacturer's respirator selection guide). Use a NIOSH approved self-contained breathing apparatus (SCBA) or equivalent operated in a pressure demand or other positive pressure mode if there is potential

for an oxygen-deficient atmosphere, uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

Other Protective Equipment:
A source of clean water should be available in the work area for flushing eyes and skin.
Impervious clothing should be worn when dealing with molten material.
Suggestions for the use of specific protective materials are based on readily available published data. Users should check with specific manufacturers to confirm the performance of their products.

9. Physical and Chemical Properties

Physical State	Liquid
Specific Gravity	0.83
Color/Appearance	Clear
Odor	Hydrocarbon
pH	Not applicable
Boiling/Cond. Point	455-595°F / 235-313°C
Melting/Freezing Point	No data
Solubility	See Below
Evaporation Rate	No data
Vapor Density	No data
Vapor Pressure	No data

Note:
Unless otherwise stated, values are determined at 20°C (68°F) and 760 mm Hg (1 atm).

Odor Threshold: No data
Solubility in Water: Insoluble
Solubility in Other Solvents: Soluble in hydrocarbons
Partition Coefficient (n-octanol/water) (Kow): No data

10. Stability and Reactivity

Stability:
Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Conditions to Avoid:
Avoid all possible sources of ignition (see Sections 5 and 7).

Materials To Avoid (Incompatible Materials):
strong oxidizing agents.

Hazardous Decomposition Products:
Combustion can yield carbon oxides, other oxides.

Hazardous Polymerization:
Will not occur.

11. Toxicological Information

Chronic Data:

Sweetened Middle Distillate
Carcinogenicity: Prolonged and repeated skin exposure of mice to certain middle distillate streams has resulted in dermatitis, which has been associated with the promotion of skin tumors via a non-genotoxic mechanism. This material has not been identified as a carcinogen by NTP, IARC, or OSHA.

Acute Data:

Sweetened Middle Distillate

Oral Ld50	Dermal Ld50	Inhalation Lc50
>5g/kg (No deaths) (Rat)	>2.0 g/kg (No deaths) (Rabbit)	4600 mg/m3/4hr. (Rat)

12. Ecological Information

When middle distillate hydrocarbons escape into the environment due to leaks or spills, most of their constituent hydrocarbons will evaporate and be photodegraded by reaction with hydroxyl radicals in the atmosphere. The half-lives in air for many of the individual hydrocarbons is less than one day. Less volatile hydrocarbons can persist in the aqueous environment for longer periods. They remain floating on the surface of the water; those that reach soil or sediment biodegrade relatively slowly. Soil contaminated with middle distillates can develop adapted microbial species able to use the fuel as a carbon source; soil aeration and nutrient supplementation can enhance this biodegradation.

Reported LC50/EC50 values for water-soluble fractions of middle distillates are usually in the range of 10 to 100 mg/liter. Adverse effects on the gills, pseudobranch, kidney and nasal mucosa have been reported in fish involved in spills of middle distillates. Juvenile clams may be particularly sensitive to marine sediments contaminated as a result of spilled material. Direct toxicity and fouling of sea birds can occur if birds dive through floating layers of spilled material.

Phytotoxic effects of middle distillate hydrocarbons have been reported following exposure of plants to sprays or vapors. Lack of seed germination and inhibition of seedling growth may also occur. There is evidence for moderate bioaccumulation of the water-soluble hydrocarbons present in middle distillates.

13. Disposal Considerations

The generator of a waste is always responsible for making proper hazardous waste determinations and needs to consider state and local requirements in addition to federal regulations.

This material, if discarded as produced, would not be a federally regulated RCRA "listed" hazardous waste and is not believed to exhibit characteristics of hazardous waste. See Sections 7 and 8 for information on handling, storage and personal protection and Section 9 for physical/chemical properties. It is possible that the aterial as produced contains constituents which are not required to be listed in the MSDS but could affect the hazardous

waste determination. Additionally, use which results in chemical or physical change of this material could subject it to regulation as a hazardous waste.

Container contents should be completely used and containers should be emptied prior to discard.

14. Transportation Information

U.S. Department of Transportation (DOT)
Shipping Description: Not regulated
Note: Material is unregulated unless shipped by land in a packaging having a capacity of 3, 500 gallons or more. Then the provisions of 49 CFR, Part 130 apply.

International Maritime Dangerous Goods (IMDG):
Shipping Description: Not regulated

International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IAT
UN/ID #: Not regulated

	Ltd. Qty	Passenger Aircraft	Cargo Aircraft Only
Packaging Instruction #:	----	-----	-----
Max. Net Qty. Per Package:	----	-----	-----

15. Regulatory Information

CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs (in pounds):
This material does not contain any chemicals subject to the reporting requirements of SARA 302 and 40 CFR 372.

CERCLA/SARA - Section 311/312 (Title III Hazard Categories)
Acute Health: Yes
Chronic Health: No
Fire Hazard: No
Pressure Hazard: No
Reactive Hazard: No

CERCLA/SARA - Section 313 and 40 CFR 372:
This material does not contain any chemicals subject to the reporting requirements of SARA 313 and 40 CFR 372.

EPA (CERCLA) Reportable Quantity (in pounds):
This material does not contain any chemicals with CERCLA Reportable Quantities.

California Proposition 65:
This material does not contain any chemicals which are known to the State of California to cause cancer, birth defects or other reproductive harm.

Canadian Regulations:
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class:
D2B - Toxic Material

National Chemical Inventories:

Component	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	CHINA	KECL	PICCS	AICS
Sweetened Middle Distillate 64741-86-2	X	X		X		X	X	X	X	X

U.S. Export Control Classification Number:
EAR99

16. Other Information

Emergency Overview:
Caution!
SKIN IRRITANT

Emergency Telephone Numbers:
California Poison Control System: 800-356-3219

Intended Use:
Solvent

Chemical Family:
Petroleum Hydrocarbon

Issue Date: 01-Nov-2006
Status: Final
Revised Sections or Basis for Revision: Format change
Product Name / Synonyms (Section 1)
MSDS Code: 775863

MSDS Legend:
ACGIH = American Conference of Governmental Industrial Hygienists; CAS = Chemical Abstracts Service Registry; CEILING = Ceiling Limit (15 minutes); CERCLA = The Comprehensive Environmental Response, Compensation, and Liability Act; EPA = Environmental Protection Agency; IARC = International Agency for Research on Cancer; LEL = Lower Explosive Limit; NE = Not Established; NFPA = National Fire Protection Association; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; PEL = Permissible Exposure Limit (OSHA); SARA = Superfund Amendments and Reauthorization Act; STEL = Short Term Exposure Limit (15 minutes); TLV = Threshold Limit Value (ACGIH); TWA = Time Weighted Average (8 hours); UEL = Upper Explosive Limit; WHMIS = Worker Hazardous Materials Information System (Canada)

Disclaimer of Expressed & implied Warranties:
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