



# Food Machinery Oil ISO 220/460

## Material Safety Data Sheet

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Food Machinery Oil ISO 220/460

**MSDS Code:** 778748

**Synonyms:** Food Machinery Oil 220  
Food Machinery Oil 460

**Intended Use:** Circulating Oil

**Responsible Party:** ConocoPhillips Lubricants  
600 N. Dairy Ashford  
Houston, Texas 77079-1175

**Customer Service:** 888-766-7676

**Technical Information:** 800-255-9556

**MSDS Information:** Internet: <http://w3.conocophillips.com/NetMSDS/>

**Emergency Telephone Numbers:** Chemtrec: 800-424-9300 (24 Hours)  
California Poison Control System: 800-356-3219

### 2. HAZARDS IDENTIFICATION

#### Emergency Overview

This material is not considered hazardous according to OSHA criteria.

#### NFPA



**Appearance:** Clear and bright

**Physical Form:** Liquid

**Odor:** Petroleum

#### Potential Health Effects

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

**Skin:** Contact may cause mild skin irritation including redness and a burning sensation. Prolonged or repeated contact can defat the skin, causing drying and cracking of the skin, and possibly dermatitis (inflammation). No harmful effects from skin absorption are expected.

**Inhalation (Breathing):** Low to moderate degree of toxicity by inhalation.

**Ingestion (Swallowing):** No information available on acute toxicity. See signs and symptoms.

**Signs and Symptoms:** Effects of overexposure may include irritation of the digestive tract, diarrhea, nausea and drowsiness. Inhalation of oil mist or vapors at elevated temperatures may cause respiratory irritation.

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

**See Section 11 for additional Toxicity Information.**

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS	Concentration (wt %)
White Mineral Oil	8042-47-5	68 - 83
Butene, polymers	9003-29-6	18 - 34
Amines, C11-14-Branched Alkyl Monohexyl and Dihexyl Phosphates	80939-62-4	<1
Triphenyl Phosphorothionate	597-82-0	<1
N-Phenylbenzene with 2, 4, 4 tri-methylpentene	68411-46-1	<1

### 4. FIRST AID MEASURES

**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 cleanse affected area(s) thoroughly by washing with mild soap and water or a waterless hand cleaner. If irritation or redness develops and persists, seek medical attention.

**Inhalation (Breathing):** If respiratory symptoms or other symptoms of exposure develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek immediate medical attention. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

**Ingestion (Swallowing):** If swallowed, seek medical attention. If victim is drowsy or unconscious, place on the left side with the head down. Do not give anything by mouth. If possible, do not leave victim unattended.

**Notes to Physician:** Acute aspirations of large amounts of oil-laden material may produce a serious aspiration pneumonia. Patients who aspirate these oils should be followed for the development of long-term sequelae. Inhalation exposure to oil mists below current workplace exposure limits is unlikely to cause pulmonary abnormalities.

### 5. FIRE-FIGHTING MEASURES

#### **NFPA 704 Hazard Class**

**Health:** 1    **Flammability:** 1    **Instability:** 0    (0-Minimal, 1-Slight, 2-Moderate, 3-Serious, 4-Severe)

**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.

**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 and 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. The use of explosion-proof electrical equipment is recommended. Stay upwind and away from spill/release. Notify persons down wind of the spill/release, isolate immediate hazard area and keep unauthorized personnel out. Wear appropriate protective equipment, including respiratory protection, as conditions warrant (see Section 8). See Sections 2 and 7 for additional information on hazards and precautionary measures.

**Environmental Precautions:** Stop spill/release if it can be done with minimal risk. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems, and natural waterways. Use water sparingly to minimize environmental contamination and reduce disposal requirements.

Spills into or upon navigable waters, the contiguous zone, or adjoining shorelines that cause a sheen or discoloration on the surface of the water, may require notification of the National Response Center (phone number 800-424-8802).

**Methods for Containment and Clean-Up:** Notify fire authorities and appropriate federal, state, and local agencies. Immediate cleanup of any spill is recommended. Dike far ahead of spill for later recovery or disposal. Absorb spill with inert material such as sand or vermiculite, and place in suitable container for disposal.

## 7. HANDLING AND STORAGE

**Precautions for safe handling:** Wash thoroughly after handling. Use good personal hygiene practices and wear appropriate personal protective equipment.

Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276 and 29CFR 1910.146. Do not wear contaminated clothing or shoes.

"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. Before working on or in tanks which contain or have contained this material, refer to OSHA regulations, ANSI Z49.1, and other references pertaining to cleaning, repairing, welding, or other contemplated operations.

**Conditions for safe 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 / PERSONAL PROTECTION

Component	ACGIH	OSHA	Other:
White Mineral Oil	TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup> As Oil Mist, If Generated	TWA: 5 mg/m <sup>3</sup> As Oil Mist, If Generated	---

**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.**

**Engineering controls:** If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits, additional engineering controls may be required.

### Personal Protective Equipment (PPE):

**Eye/Face:** The use of eye protection that meets or exceeds ANSI Z.87.1 is recommended to protect against potential eye contact, irritation, or injury. 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. Users should check with manufacturers to confirm the performance of their products. Suggested protective materials: Nitrile.

**Respiratory:** Where there is potential for airborne exposure above the exposure limit a NIOSH certified air purifying respirator equipped with R or P95 filters may be used.

A respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed whenever workplace conditions warrant a respirator's use. Air purifying respirators provide limited protection and cannot be used in atmospheres that exceed the maximum use concentration (MUC) as directed by regulation or the manufacturer's instructions, in oxygen deficient (less than 19.5 percent oxygen) situations, or other conditions that are immediately dangerous to life and health (IDLH).

**Suggestions provided in this section for exposure control and specific types of protective equipment are based on readily available information. Users should consult with the specific manufacturer to confirm the performance of their protective equipment. Specific situations may require consultation with industrial hygiene, safety, or engineering professionals.**

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Note:** Unless otherwise stated, values are determined at 20°C (68°F) and 760 mm Hg (1 atm). Data represent typical values and are not intended to be specifications.

<b>Appearance:</b>	Clear and bright
<b>Physical Form:</b>	Liquid
<b>Odor:</b>	Petroleum
<b>Odor Threshold:</b>	No data
<b>pH:</b>	Not applicable
<b>Vapor Pressure:</b>	<1
<b>Vapor Density (air=1):</b>	>1
<b>Boiling Point/Range:</b>	No data-18
<b>Melting/Freezing Point:</b>	<10°F / <-12°C
<b>Pour Point:</b>	<10°F / <-12°C
<b>Solubility in Water:</b>	Insoluble
<b>Partition Coefficient (n-octanol/water) (Kow):</b>	No data
<b>Specific Gravity:</b>	0.88 - 0.89 @ 60°F (15.6°C)
<b>Bulk Density:</b>	7.3 - 7.4 lbs/gal
<b>Viscosity:</b>	22 - 38 cSt @ 100°C; 196 - 506 cSt @ 40°C
<b>Evaporation Rate (nBuAc=1):</b>	No data
<b>Flash Point:</b>	>373°F / >189°C
<b>Test Method:</b>	Cleveland Open Cup (COC), ASTM D92
<b>LEL (vol % in air):</b>	No data
<b>UEL (vol % in air):</b>	No data
<b>Autoignition Temperature:</b>	No data

## 10. STABILITY AND REACTIVITY

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

**Conditions to Avoid:** Extended exposure to high temperatures can cause decomposition.

**Materials to Avoid (Incompatible Materials):** Avoid contact with strong oxidizing agents, strong acids and strong bases.

**Hazardous Decomposition Products:** Combustion can yield oxides of carbon, nitrogen and sulfur.

**Hazardous Polymerization:** Not known to occur.

**11. TOXICOLOGICAL INFORMATION**

**Acute Data:**

Component	Oral LD50	Dermal LD50	Inhalation LC50
White Mineral Oil	>5 g/kg (rat)	>2 g/kg	>5 mg/l (rat)
Butene, polymers	>5.5 g/kg (rat)	>10.3 g/kg (rat)	>18.5 mg/L (rat)
N-Phenylbenzene with 2, 4, 4 tri-methylpentene	> 5,000 mg/kg-bw (rat)	> 2,000 mg/kg-bw (rat)	No data

**12. ECOLOGICAL INFORMATION**

Not evaluated.

**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 material 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.

This material under most intended uses would become "Used Oil" due to contamination by physical or chemical impurities. Whenever possible, Recycle Used Oil in accordance with applicable federal and state or local regulations. 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:** If shipped by land in a packaging having a capacity of 3,500 gallons or more, the provisions of 49 CFR, Part 130 apply. (Contains oil)

**International Maritime Dangerous Goods (IMDG)**

**Shipping Description:** Not regulated  
**Note:** Federal compliance requirements may apply. See 49 CFR 171.12.

**International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)**

**UN/ID #:** Not regulated

	LTD. QTY	Passenger Aircraft	Cargo Aircraft Only
<b>Packaging Instruction #:</b>	---	---	---
<b>Max. Net Qty. Per Package:</b>	---	---	---

**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:** No

---

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 at concentrations that trigger the warning requirements of California Proposition 65.

**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 Regulations.

WHMIS Hazard Class  
None

**National Chemical Inventories:**

All components are either listed on the US TSCA Inventory, or are not regulated under TSCA.  
All components are either on the DSL, or are exempt from DSL listing requirements.

**U.S. Export Control Classification Number:** EAR99

## 16. OTHER INFORMATION

<b>Issue Date:</b>	29-Nov-2007
<b>Status:</b>	Final
<b>Previous Issue Date:</b>	11-Nov-2005
<b>Revised Sections or Basis for Revision:</b>	Composition (Section 3)
<b>MSDS Code:</b>	778748

**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 and implied Warranties:**

The information presented in this Material Safety Data Sheet is based on data believed to be accurate as of the date this Material Safety Data Sheet was prepared. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED ABOVE, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE. No responsibility is assumed for any damage or injury resulting from abnormal use or from any failure to adhere to recommended practices. The information provided above, and the product, are furnished on the condition that the person receiving them shall make their own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use. In addition, no authorization is given nor implied to practice any patented invention without a license.