

Conoco Material Safety Data Sheet

MATERIAL IDENTIFICATION

NUMBER : MISC0011
NAME : Crude Oil (Sweet)

CHEMICAL FAMILY : Petroleum Hydrocarbons
CAS NUMBER : Mixture; See Regulatory Information
TSCA INVENTORY STATUS : See Regulatory Information
NFPA RATING : Health: 1 Flammability: 3 Reactivity: 0
WHMIS CLASSIFICATION :
This is a WHMIS controlled product. See Regulatory Information.

MANUFACTURER/DISTRIBUTOR: Conoco Inc.

P.O. Box 2197
Houston, TX 77252

GENERAL INFORMATION PHONE : 1-(713)293-5550
TRANSPORTATION EMERGENCY PHONE : 1-(800)424-9300
MEDICAL EMERGENCY PHONE : 1-(800)441-3637

OSHA HAZARD DETERMINATION *****

Hazardous Ingredients

CAS Number %

Hydrocarbons (Aromatic & Paraffinic)

*Benzene Mixtures .95%
71-43-2

* Regulated as a toxic chemical under section 313 of
Title III of the Superfund Amendments and Reauthorization
Act of 1986 and 40 CFR part 372.

Hazardous Physical Properties:

Variable--Flammable or Combustible depending on flash point.
Could be as hazardous as Class 1A Flammable Liquid - NFPA
30 -1987.

The material is hazardous as defined by OSHA's Hazard
Communication Standard, 29 CFR 1910.1200. Refer to the
Regulatory Information Section of this MSDS for other
federal and state regulatory information.

PHYSICAL DATA *****

Boiling Point : 50-1100 deg F
Vapor Pressure : 100-800 mm Hg at 68 deg F (Variable)
Evaporation Rate : Variable
Odor : Petroleum aromatic
Form : Liquid
Color : Usually greenish-black
Specific Gravity : 0.7-1.1

HAZARDOUS REACTIVITY

Instability : Stable.

Hazardous Decomposition Products: Normal combustion forms carbon dioxide; incomplete combustion may produce carbon monoxide.

Conditions to Avoid: Oxidizing materials, heat, flame.

FIRE AND EXPLOSION DATA

Flammable Limits in Air, % by Vol.

LEL : <1

UEL : 10

Flash Point: Less than Ambient (Variable)

FIRE AND EXPLOSION HAZARDS

Flash point is variable; handle and store in accordance with NFPA procedures. Could be as hazardous as a Class IA Flammable Liquid - NFPA 30-1987.

EXTINGUISHING MEDIA

Dry Chemical. CO2.
Foam.

SPECIAL FIRE FIGHTING INSTRUCTIONS

Special Fire Fighting Procedures: Water may be ineffective to extinguish, but water should be used to keep fire-exposed containers cool. If a leak or spill has not ignited, use water spray to disperse the vapors and to protect personnel attempting to stop a leak. Water spray may be used to flush spills away from sources of potential ignition.

Unusual Fire and Explosion Hazards: Products of combustion may contain carbon monoxide, carbon dioxide and other toxic materials. Do not enter enclosed or confined space without proper protective equipment including respiratory protection.

HEALTH HAZARD INFORMATION

Primary Route of Exposure/Entry: Inhalation, skin.

Signs and Symptoms of Exposure/Medical Conditions Aggravated by Exposure:

Studies with mice or rats have shown that some petroleum distillates have caused either damage or tumors of the kidneys or tumors of the liver. However, kidney effects were not seen in similar studies involving guinea pigs, dogs or monkeys. Also, the significance of the liver tumors in rodents is highly speculative.

Mouse skin painting studies have shown that some crude oils caused a low incidence of tumors. However, these studies involved repeated exposure of shaved skin which was never washed free of test material. The product contains petroleum hydrocarbons which may cause irritation to eyes, skin and lungs after prolonged or repeated exposure. Extreme exposure may cause weakness, headache, nausea, confusion, blurred vision, drowsiness and other nervous system effects; greater exposure may cause dizziness, slurred speech, flushed face, unconsciousness or convulsions.

A few studies have indicated that workers exposed many years to high concentrations of benzene have a slightly higher incidence of leukemia. Benzene can also be toxic to the blood and blood-forming tissues.

Carcinogenicity

The following components are listed by IARC, NTP, OSHA, or ACGIH as carcinogens. A 'P' indicates a Proposed Carcinogen.

Chemical

IAR NTP OSH AC

Benzene

X X

DuPont controls the following chemicals as potential carcinogens :
Benzene .

Exposure Limits for Crude Oil (Sweet)

TLV ** (ACGIH) : None Established
PEL (OSHA) : None Established
Other : PEL: Petroleum Distillate -
400 ppm, 1600 mg/m3

Other Applicable Exposure Limits:

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(HEALTH HAZARD INFORMATION - CONTINUED)

Exposure Limits for Benzene

AEL * (DuPont): 1 ppm - 8 & 12 Hr. TWA
5 ppm - 15 Min. TWA
TLV ** (ACGIH) : 10 ppm, 30 mg/m3 (A2)
PEL (OSHA) : 1 ppm - 8 Hr. TWA
5 ppm - (Short term exposure limit)
0.5 ppm - Action level

* AEL is DuPont's Acceptable Exposure Limit.

** TLV is a registered trademark.

Safety Precautions

Avoid breathing vapors or mist. Avoid contact with eyes. Avoid contact with skin.

FIRST AID

INHALATION

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

SKIN CONTACT

In case of contact, immediately wash skin with soap and plenty of water. If irritation develops, consult a physician.

EYE CONTACT

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

INGESTION

If swallowed, do not induce vomiting. Give large quantities of water. Never give anything by mouth to an unconscious person. Call a physician.

NOTES TO PHYSICIAN

Gastric lavage by qualified medical personnel may be considered, depending on quantity of material ingested.

PROTECTION INFORMATION

Generally Applicable Control Measures and Procedures

Ventilation: Mechanical ventilation required only in emergency or extreme conditions, such as confined spaces.

Personal Protective Equipment

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Respiratory Protection: Select appropriate NIOSH-approved

(PROTECTION INFORMATION - CONTINUED)

respiratory protection where necessary to maintain exposure below acceptable limits.

Protective Gloves: Neoprene or NBR gloves should be worn to protect against chronic skin contact.

Eye Protection: Safety glasses with side shields and/or face shield where splashing is present.

Other Protective Equipment: Coveralls if slashing is present.

SPILL, LEAK AND DISPOSAL INFORMATION

Spill, Leak, or Release

NOTE: Review FIRE AND EXPLOSION HAZARDS and SAFETY PRECAUTIONS before proceeding with clean up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean up. Contain spill immediately in smallest possible area. Recover as much of the product as possible by mechanical means, followed by recovering residual fluids by using absorbent materials. Nonrecoverable product, contaminated soil, debris and other materials should be placed in proper containers for ultimate disposal. Avoid washing, draining or directing material to storm or sanitary sewers.

Waste Disposal

Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.
Recycle as much of the recoverable product as possible.

SHIPPING INFORMATION

DOT

Flashpoint	< 100 deg F	> or = 100 deg F
Proper		
Shipping Name:	Crude oil, petroleum	Crude oil, petroleum
Hazard Class:	Flammable liquid	Combustible liquid
UN/NA No.:	UN 1267	UN 1267
Label:	Flammable liquid	None
Placard:	Flammable	Combustible

IATA/IMO

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Flashpoint	< 73 deg F	> or = 73 deg F
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(SHIPPING INFORMATION - CONTINUED)

Proper

Shipping Name:	Petroleum Crude Oil	Petroleum Crude Oil
Hazard Class:	3 (3.2 IMO)	3 (3.3 IMO)
UN No.:	UN 1267	UN 1267
IMO/ICAO Label:	Flammable liquid	Flammable liquid
Packaging Group:	II	III

STORAGE CONDITIONS

Store in accordance with National Fire Protection Assn regulations.

REGULATORY INFORMATION

FEDERAL REGULATIONS

CERCLA, 40 CFR 302
Not Applicable

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986,
TITLE III - SECTIONS 302, 304, 311, 312, 313

SECTION 302/304 - Extremely Hazardous Substances, 40 CFR
355

The material does not contain extremely hazardous substances at greater than 1.0% concentration; however, it is possible that this material may contain extremely hazardous substances at a lower concentration so that a large enough spill could warrant an Emergency Release Report under Section 304.

SECTION 311/312 - MSDS and Chemical Inventory Reporting
Requirements, 40 CFR 370

The material should be reported under the following EPA hazard categories:

- x Immediate (Acute Health Hazard)
- x Delayed (Chronic Health Hazard)
- x Fire
 - Sudden Release of Pressure
 - Reactive
 - Not Applicable

Note: See the Hazard Determination Section for the concentration of any ingredients classified as hazardous by OSHA.

SECTION 313 - List of Toxic Chemicals, 40 CFR 372

The material contains the following chemical(s) at a level of 1.0% or greater (0.1% for carcinogens) on the list of Toxic Chemicals and is subject to toxic chemical release reporting requirements.

(REGULATORY INFORMATION - CONTINUED)

Toxic Chemical: Benzene

CAS Registry Number: 71-43-2

Approximate Concentration (Upper Bound): 2.0%

TOXIC SUBSTANCES CONTROL ACT (TSCA), 40 CFR 710

The material is a mixture as defined by TSCA. The chemical ingredients in this material are in the Section 8(b) Chemical Substance Inventory and/or are otherwise in compliance with TSCA. In the case of ingredients obtained from other manufacturers, Conoco relies on the assurance of responsible third parties in providing this statement.

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA), 40 CFR 261, SUBPART C AND D

The material, when discarded or disposed of, is not specifically listed as a hazardous waste in Federal regulations; however, it could be considered hazardous if it meets criteria for being toxic, corrosive, ignitable or reactive according to U.S. EPA definitions (40 CFR 261). Additionally, it could be designated as hazardous according to state regulations. This material could also become a hazardous waste if it is mixed with or comes in contact with a listed hazardous waste. If such contact or mixing occurs, check 40 CFR 261 to determine whether it is a hazardous waste. If it is a hazardous waste, regulations 40 CFR 262, 263, 264 and 268 may apply.

FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 116, Section 311

The material contains the following ingredient(s) which is considered hazardous if spilled in navigable waters.

Ingredient	Reportable Quantity
Petroleum Hydrocarbon	Film or sheen upon or discoloration of the water surface or adjoining shoreline

HAZARDOUS MATERIALS TRANSPORTATION REGULATIONS, 49 CFR 171-178

Not Applicable

FOREIGN REGULATION

CANADIAN HAZARDOUS PRODUCTS ACT (WHMIS)

The material is a WHMIS Controlled Product and a Canadian MSDS is available.

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STATE REGULATIONS

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986 ("PROPOSITION 65")

(REGULATORY INFORMATION - CONTINUED)

The material contains ingredient(s) known to the State of California to cause cancer, birth defects or other reproductive harm. Read and follow label directions and use care when handling or using all petroleum products.

Ingredient:
Benzene

PENNSYLVANIA WORKER AND COMMUNITY RIGHT TO KNOW ACT
The material contains the following hazardous substances:
Categories: S - Special Hazardous Substance (> or = 0.01%)
H - Hazardous Substance (> or = 1.0%)
E - Environmental Hazard (> or = 1.0%)

Ingredient(s)	CAS Registry Number	Category
Benzene	71-43-2	E,S
Petroleum Distillates	Mixture	H

Nonhazardous ingredient(s) information is withheld as trade secret in accordance with Section 11 of the Act.

The above data are based on tests, experience, and other information which Conoco believes reliable and are supplied for informational purposes only. However, some ingredients may have been purchased or obtained from third-party manufactures. In these instances, Conoco, in good faith, relies on information provided by those third parties. Since conditions of use are outside our control, CONOCO DISCLAIMS ANY LIABILITY FOR DAMAGE OR INJURY WHICH RESULTS FROM USE OF THE ABOVE DATA. NOTHING CONTAINED HEREIN SHALL CONSTITUTE A GUARANTEE, WARRANTY (INCLUDING WARRANTY OF MERCHANTABILITY) OR REPRESENTATION (INCLUDING FREEDOM FROM PATENT LIABILITY) BY CONOCO WITH RESPECT TO THE DATA, THE MATERIAL DESCRIBED, OR ITS USE FOR ANY SPECIFIC PURPOSE, EVEN IF THAT PURPOSE IS KNOWN TO CONOCO.

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