========== CHEMICAL PRODUCT AND COMPANY IDENTIFICATION ==========

TRADE NAME: LOW SULFUR NO. 2 DIESEL
CAS NUMBER: 68476-34-6
SYNONYM(S): PROCESS STREAM; NO. 2 DIESEL FUEL; FUEL OIL; MIDDLE DISTILLATE; AB0/AA9-1; AG7; AG8

MSDS NUMBER: 1354
PRODUCT CODE: NA
HIERARCHY: 040.020
MANUFACTURER/SUPPLIER: BP Oil Company

ADDRESS: 200 Public Square, Cleveland, OH 44114-2375
TELEPHONE NUMBERS - 24 HOUR EMERGENCY ASSISTANCE:
BP America (In Ohio): 800-362-8059
BP America (Outside Ohio): 800-321-8642
CHEMTREC ASSISTANCE: 800-424-9300
TELEPHONE NUMBERS - GENERAL ASSISTANCE: (Normal Office Hours): (8:00-4:30 M-F, EST):
Technical: 216-441-8106
MSDS Contact: 216-586-8023

========== COMPOSITION/INFORMATION ON INGREDIENTS ==========

COMPONENT:A distillate having a minimum viscosity of 32.6 SUS at 100 degrees F to a maximum of 40.1 SUS at 100 degrees F
CAS NO.: 68476-34-6
% BY WT.: 99.9 - 100
EXPOSURE LIMITS: None Established

========== HAZARDS IDENTIFICATION ==========

EMERGENCY OVERVIEW:

Clear Liquid With Hydrocarbon Odor. May Be Dyed For Identification.
Danger!
Harmful or Fatal If Swallowed.
Aspiration Hazard If Swallowed--Can Enter Lungs and Cause Damage.
May Be Irritating To the Eyes and Respiratory Tract.
Causes Skin Irritation.
Vapors May Be Harmful.
Possible Cancer Hazard - Contains Material Which May Cause Cancer Based On Animal Data.
Combustible Liquid & Vapor.

POTENTIAL HEALTH EFFECTS:

SKIN:

Repeated or prolonged contact may result in defatting, redness, itching, inflammation, cracking and possible secondary infection. May cause allergic reactions in some individuals. Absorption from prolonged or massive skin contact may cause poisoning. High pressure skin injections are Serious Medical Emergencies. Injury may not appear serious at first; within a few hours, tissue will become swollen, discolored and extremely painful (see Notes to Physician section).

EYE:

Exposure to vapors, fumes or mists may cause irritation.

INHALATION:

May cause respiratory tract irritation. Exposure may cause central nervous system symptoms similar to those listed under "Ingestion" (see Ingestion section). Degenerative changes in the liver, kidneys and bone marrow may occur with prolonged, high concentrations. Repeated or prolonged exposures may cause behavioral changes.

INGESTION:

Aspiration into lungs may cause pneumonitis. May cause gastrointestinal disturbances. Symptoms may include irritation, nausea, vomiting and diarrhea. May cause harmful central nervous system effects. Effects may include excitation, euphoria, headache, dizziness, drowsiness, blurred vision, fatigue, tremors, convulsions, loss of consciousness, coma, respiratory arrest and death.

SPECIAL TOXIC EFFECTS:

Based on animal studies, repeated overexposure may produce skin tumors upon repeated and prolonged skin contact in the absence of good personal hygiene. However, long-term dermal application studies of similar materials, i.e. middle distillates, in animals have shown that skin tumors are produced only when marked and prolonged skin irritation takes place during the study. Therefore, this product should not present a significant hazard of skin tumor formation when the "Skin Protection" recommendations are followed.

IARC has determined that diesel engine exhaust is probably carcinogenic to humans. (IARC Class- 2A). Lifetime exposure to whole diesel exhaust has been shown to cause cancer in laboratory animals. NIOSH recommends that whole diesel exhaust be regarded as a potential occupational carcinogen.

Warning: The use of any hydrocarbon fuel in an area without adequate ventilation may result in hazardous levels of combustion products and

inadequate oxygen levels. IARC has determined that occupational exposures in petroleum refining are probably carcinogenic to humans.

See Section FIRST AID MEASURES - for Medical Conditions Aggravated By Exposure.

========== FIRST AID MEASURES ==========

SKIN:

Remove contaminated clothing immediately. Wash area of contact thoroughly with soap and water. Get medical attention if irritation persists. High pressure skin injections are serious medical emergencies. Thermal burns require immediate medical attention. Get immediate medical attention.

EYE:

Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get medical attention if irritation persists. Thermal burns require immediate medical attention.

INHALATION:

Remove affected person from source of exposure. If not breathing, ensure clear airway and institute cardiopulmonary resuscitation (CPR). If breathing is difficult, administer oxygen if available. After administration of oxygen, continue to monitor closely. Get medical attention.

INGESTION:

Do not induce vomiting because of danger of aspirating liquid into lungs. Get immediate medical attention. If spontaneous vomiting occurs, monitor for breathing difficulty.

NOTES TO PHYSICIAN:

In case of ingestion, gastric lavage with activated charcoal can be used promptly to prevent absorption. Consideration should be given to the use of an endotracheal tube, to prevent aspiration. Individuals intoxicated by Diesel Fuel No. 2 should be hospitalized immediately, with acute and continuing attention to neurologic and cardiopulmonary function. Positive pressure ventilation may be necessary. After the initial episode, individuals should be followed for changes in blood variables and the delayed appearance of pulmonary edema and chemical pneumonitis. Such patients should be followed for several days or weeks for delayed effects, including bone marrow toxicity, hepatic and renal impairment. Individuals with chronic pulmonary disease will

be more seriously impaired, and recovery from inhalation exposure may be complicated. In case of skin injection, prompt debridement of the wound is necessary to minimize necrosis and tissue loss.

FIREFIGHTING MEASURES

FLASH POINT:	51.7 C (125.06 F)
AUTOIGNITION TEMPERATURE:	ND
FLAMMABILITY LIMITS IN AIR (% BY VOL.) LOWER:	> 0.7
FLAMMABILITY LIMITS IN AIR (% BY VOL.) UPPER:	< 5

HAZARDOUS COMBUSTION PRODUCTS:

Combustion may produce CO, CO2 and reactive hydrocarbons.

BASIC FIRE FIGHTING PROCEDURES:

Use water spray, dry chemical, foam or carbon dioxide to extinguish fire. Use water spray to cool fire-exposed containers, structures and to protect personnel. If leak or spill has not ignited, ventilate area and use water spray to disperse gas or vapor and to protect personnel attempting to stop leak. Use water to flush spills away from sources of ignition. Do not flush down public sewers or other drainage systems. Exposed firefighters must wear MSHA/NIOSH approved positive pressure self-contained breathing apparatus with full face mask and full protective clothing.

UNUSUAL FIRE & EXPLOSION HAZARDS:

Irritating and/or toxic substances may be emitted upon thermal decomposition. Dangerous when exposed to heat or flame. Runoff to sewer may cause fire or explosion hazard. Containers may explode in heat of fire.

ACCIDENTAL RELEASE MEASURES

If your facility or operation has an "Oil or Hazardous Substance Contingency Plan", activate its procedures. Take immediate steps to stop and contain the spill. Caution should be exercised regarding personnel safety and exposure to the spilled material. For technical advice and assistance related to chemicals, contact CHEMTREC (800/424-9300) and your local fire department. Notify the National Response Center, if required. Also notify appropriate state and local regulatory agencies, the LEPC and the SERC. Contact the local Coast Guard if the release is into a waterway.

Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind; keep out of low areas. (Also see Personal Protection Information section.)
Shut off ignition sources; no flares, smoking or flames in hazard

area. Stop leak if you can do it without risk. Water spray may reduce vapor; but it may not prevent ignition in closed spaces. Small Spills: Take up with sand or other noncombustible absorbent material and place into containers for later disposal. Large Spills: Dike far ahead of liquid spill for later disposal.

When reporting a spill to the National Response Center or the Coast Guard, you may need to supply the Coast Guard Chemical Hazard Response Information System (CHRIS) code:

Group Number: 33
CHRIS Code: OTD

Additional spill related information may be found in the U.S. Coast Guard Chemical Hazard Response Information System (CHRIS) Manual.

During an accidental release, personal protection equipment may be required (see Section EXPOSURE CONTROLS/PERSONAL PROTECTION). Additional regulatory requirements may apply (see Section REGULATORY INFORMATION).

========== HANDLING AND STORAGE ==========

HANDLING:

Use non-sparking tools. Ground lines and equipment used during transfer to reduce the possibility of static spark-initiated fire or explosion.

Empty containers may contain toxic, flammable/combustible or explosive residue or vapors. Do not cut, grind, drill, weld, reuse or dispose containers unless adequate precautions are taken against these hazards.

STORAGE:

Store in tightly closed containers in cool, dry, isolated, well-ventilated area away from heat, sources of ignition and incompatibles.

========== EXPOSURE CONTROLS / PERSONAL PROTECTION ==========

ENGINEERING CONTROLS:

Ventilation may be used to control or reduce airborne concentrations.

PERSONAL PROTECTION EQUIPMENT (PPE):

EYE PROTECTION:

Wear safety glasses or chemical goggles to prevent eye contact. Do not wear contact lenses when working with this substance. Have eye washing facilities readily available where eye contact can occur.

SKIN PROTECTION:

Wear impervious gloves and protective clothing to prevent skin contact.

RESPIRATORY PROTECTION:

NIOSH/MSHA approved breathing equipment may be required for non-routine and emergency use.

See Section COMPOSITION/INFORMATION ON INGREDIENTS For Exposure Guidelines.

PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT:	160 C (320 F)
SP. GRAVITY (Water=1):	0.84 - 0.88 @ 15.56 C (60.008 F)
MELTING POINT:	NA
% VOLATILE:	Negligible
VAPOR PRESSURE:	0.4 MM HG @ 20 C (68 F)
EVAPORATION RATE:	Slower
VAPOR DENSITY (Air=1):	4.7
VISCOSITY:	1.2 - 4.6 CST @ 37.8 C (100.04 F)
% SOLUBILITY IN WATER:	Negligible
POUR POINT:	-12.22 C (10.004 F)
pH:	NEUTRAL
MOLECULAR WEIGHT:	NA
MOLECULAR FORMULA:	Mixture

ODOR/APPEARANCE:

Clear Liquid With Hydrocarbon Odor. May Be Dyed For Identification.

STABILITY AND REACTIVITY

STABILITY/INCOMPATIBILITY:

Stable. Avoid contact with strong oxidizers.

HAZARDOUS REACTIONS/DECOMPOSITION PRODUCTS:

Thermal decomposition or combustion may produce CO, CO2 and reactive hydrocarbons.

TOXICOLOGICAL INFORMATION

OTHER:

An extensive profile which characterizes adverse health effects information for this material has been prepared by the Agency for Toxic Substances Disease Registry (ATSDR). Individuals interested in a summary of the toxicology of this material should reference this document. This profile can be obtained from the National Technical Information Services (NTIS).

========== DISPOSAL CONSIDERATIONS ==========

WASTE DISPOSAL (Resource Conservation & Recovery Act - RCRA):

This material, when discarded or disposed of, is a characteristic hazardous waste according to Federal regulations (40 CFR 261). This material exhibits the characteristic of ignitability and is assigned the EPA Hazardous Waste Number of D001. The discarding or disposal of this material must be done at a properly permitted facility in accordance with the regulations of 40 CFR 262, 263, 264, and 268. Additionally, the discarding or disposal of this material may be further regulated by state, regional, or local regulations. Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate, or otherwise inappropriate. The transportation, storage, treatment and disposal of this waste material must be conducted in compliance with all applicable Federal, state, and local regulations.

There may be specific current regulations at the local, regional, or state level that pertain to this information. Chemical additions, processing, or otherwise altering this material may make the waste

========== TRANSPORT INFORMATION ==========

U.S. DEPARTMENT OF TRANSPORTATION (D.O.T.):

Proper Shipping Name (49 CFR 172.101):	Fuel Oil (No. 2)
Hazard Class (49 CFR 172.101):	3
UN/NA Code (49 CFR 172.101):	NA 1993
Packing Group (49 CFR 179.101):	PG III
Bill Of Lading Desc. (49 CFR 172.101):	Fuel Oil (No. 2), 3, NA 1993, PG III
Labels Required (49 CFR 172.101):	Not Regulated
Placards Required (49 CFR 172.101):	Combustible

INTERNATIONAL AND DOMESTIC AIR TRANSPORTATION:

IATA Proper Shipping Name:	Diesel Fuel
Hazard Class:	3
Subsidiary Risk:	NA
UN Code:	UN 1202
Package Specification:	309, 310

Labels Required:	Flammable Liquid, Orientation Arrows

INTERNATIONAL WATER TRANSPORTATION:

IMDG Proper Shipping Name:	Diesel Fuel
Hazard Class:	3.3
UN Code:	UN 1202
IMDG Page Number:	3375
Labels Required:	Flammable Liquid
Placards Required:	Flammable

CANADIAN TRANSPORTATION OF DANGEROUS GOODS (T.D.G.):

Shipping Name:	Fuel Oil, No. 2
PIN (UN/NA):	UN 1202
Regulated Class:	3
Division:	NA
Packaging Group:	PGIII
Labels Required:	Flammable Liquid
Placards Required:	Flammable

REGULATORY INFORMATION

NOTIFICATION:

Any spill or release, or substantial threat of release, of this material to navigable water (virtually any surface water) sufficient to cause a visible sheen upon the water must be reported immediately to the National Response Center (800/424-8802), as required by U.S. Federal Law. Failure to report may result in substantial civil and criminal penalties. Also contact the Coast Guard and appropriate state and local regulatory agencies.

US EPA TOXIC SUBSTANCE CONTROL ACT (TSCA):

All components of this product are listed on the TSCA inventory.

US EPA SUPERFUND AMENDMENTS & REAUTHORIZATION ACT (SARA) TITLE III INFORMATION:

Listed below are the hazard catagories for SARA Section 311/312 (40 CFR 370):

Immediate Hazard:	X
Delayed Hazard:	X
Fire Hazard:	X
Pressure Hazard:	-

Reactivity Hazard: -

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA):

All components of this product are listed on the Canadian DSL or NDSL inventories.

CANADIAN WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS) CATEGORIES:
The following WHMIS categories apply to this product:

Compressed Gas:	-	Other Toxic Effects:	X
Flammable/Combustible:	X	Bio Hazardous:	-
Oxidizer:	-	Corrosive:	-
Acutely Toxic:	X	Dangerously Reactive:	-

========== OTHER INFORMATION ==========

NFPA RATINGS:		HMIS RATINGS:	
Health:	0	Health:	0
Flammability:	2	Flammability:	2
Reactivity:	0	Reactivity:	0
Special Hazards:	-	Personal Protective Equipment:	H

REVISION DATE: 27-sep-1996
REPLACES SHEET DATED: 17-feb-1995
COMPLETED BY: BP OIL HSEQ DEPARTMENT
REVISION SUMMARY: The following section(s) have been revised since the previous issue of this MSDS:
- HAZARDS IDENTIFICATION
- FIRST AID MEASURES
- EXPOSURE CONTROLS / PERSONAL PROTECTION
- STABILITY AND REACTIVITY
- TOXICOLOGICAL INFORMATION
- DISPOSAL CONSIDERATIONS
- TRANSPORT INFORMATION
- REGULATORY INFORMATION
- OTHER INFORMATION

NOTICE: The information presented herein is based on data considered to be accurate as of the date of preparation of this Material Safety Data Sheet. However, no warranty or representation, express or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In addition, no responsibility can be assumed by vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards

inherent in the nature of the product.

ND: No Data NA: Not Applicable *See specific note or sectionVMSmail To information:
CLVX11::MRGATE::"Mci_gateway::MCIMAIL::H*CHARGE:PMPRS_MSDS,FORM:BPOIL",CLVX11::MRGATE::"Mci_gateway::MciMail::COUNTRY:USA ::CODE:34761 E ::STATE:FL ::CITY:OCOEE ::L