



No. 2 Fuel Oil

Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 03/06/2015

Supersedes: 01/01/2014

Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : No. 2 Fuel Oil
Product form : Mixture
Formula : Petroleum distillate fraction consisting of a complex mixture of parafinic, olefinic, naphthenic hydrocarbons plus fused polycyclic hydrocarbons (C10 and higher) as benzene solubles.
Other means of identification : 2 Oil, Fuel Oil, Diesel Oil, Diesel Fuel No. 2, Marine Diesel Oil (Dyed)

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Distillation Product

1.3. Details of the supplier of the safety data sheet

Apex Oil Company, Inc.
Clark Oil Trading Company
Enjet, LLC
8235 Forsyth Boulevard, Suite 400
St. Louis, Missouri 63105
General Assistance 1-314-889-9600

1.4. Emergency telephone number

Emergency number : Chemtrec: 1-800-424-9300 (Apex reference number: 225708)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Flam. Liq. 3	H226
Acute Tox. 4 (Inhalation:dust,mist)	H332
Muta. 1B	H340
Carc. 1A	H350
STOT RE 2	H373
Asp. Tox. 1	H304
Aquatic Chronic 2	H411

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H226 - Flammable liquid and vapor
H304 - May be fatal if swallowed and enters airways
H332 - Harmful if inhaled
H340 - May cause genetic defects
H350 - May cause cancer
H373 - May cause damage to organs (liver, spleen, bone marrow) through prolonged or repeated exposure
H411 - Toxic to aquatic life with long lasting effects

Precautionary statements (GHS-US) :

P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P210 - Keep away from heat, open flames, sparks. - No smoking
P233 - Keep container tightly closed
P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof electrical, lighting, ventilating equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P260 - Do not breathe mist, vapors
P271 - Use only outdoors or in a well-ventilated area
P273 - Avoid release to the environment
P280 - Wear eye protection, face protection, protective clothing, protective gloves
P301+P310 - IF SWALLOWED: Immediately call a doctor, a POISON CENTER
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P308+P313 - If exposed or concerned: Get medical advice/attention

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P314 - Get medical advice/attention if you feel unwell
P331 - Do NOT induce vomiting
P370+P378 - In case of fire: Use carbon dioxide (CO₂), dry extinguishing powder, foam to extinguish
P391 - Collect spillage
P403+P235 - Store in a well-ventilated place. Keep cool
P405 - Store locked up
P501 - Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%
Fuel oil No. 2	(CAS No) 68476-30-2	60 - 100
Distillates, petroleum, hydrotreated middle	(CAS No) 64742-46-7	60 - 100
Distillates, petroleum, full-range straight-run middle	(CAS No) 68814-87-9	60 - 100
Distillates, petroleum, light catalytic cracked	(CAS No) 64741-59-9	30 - 60
Benzene	(CAS No) 71-43-2	0.1 - 1
Hydrogen Sulfide	(CAS No) 7783-06-4	< 1

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.

First-aid measures after inhalation : IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention. If breathing is difficult, supply oxygen. If breathing has stopped, give artificial respiration.

First-aid measures after skin contact : IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin with water for at least 15 minutes. If irritation develops or persists, get medical attention.

First-aid measures after eye contact : IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. If pain, blinking, or irritation develops or persists, get medical attention. Continue rinsing.

First-aid measures after ingestion : IF SWALLOWED: rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention immediately.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : May be fatal if swallowed and enters airways. Harmful if inhaled. May cause genetic defects. May cause cancer. May cause damage to organs (liver, bone marrow) through prolonged or repeated exposure.

Symptoms/injuries after inhalation : Harmful if inhaled.

Symptoms/injuries after skin contact : May cause skin irritation.

Symptoms/injuries after eye contact : Direct contact with the eyes is likely to be irritating.

Symptoms/injuries after ingestion : May be fatal if swallowed and enters airways.

Chronic symptoms : May cause genetic defects. May cause cancer. May cause damage to organs through prolonged or repeated exposure.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Carbon dioxide. Dry powder. Sand. Water spray.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Flammable liquid and vapor.

Explosion hazard : Heating may cause an explosion.

Reactivity : No dangerous reactions known under normal conditions of use.

5.3. Advice for firefighters

Precautionary measures fire : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not dispose of fire-fighting water in the environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Self-contained breathing apparatus.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate area. Ventilate area. Keep upwind. Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8).

6.1.1. For non-emergency personnel

Protective equipment : Wear Protective equipment as described in Section 8.
Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing, gloves and eye or face protection. Approved supplied-air respirator, in case of emergency.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Stop leak if safe to do so. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up : Eliminate ignition sources. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Sweep or shovel spills into appropriate container for disposal. This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

See Sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Do not get in eyes, on skin, or on clothing. Use appropriate personal protection equipment (PPE). Immediately rinse contaminated clothing thoroughly with water. Use only in well-ventilated areas. Avoid breathing vapors, mist. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Direct sunlight, Incompatible materials, Food. Keep the container tightly closed. Avoid temperature extremes. Keep away from ignition sources. Containers which are opened should be properly resealed and kept upright to prevent leakage. Do not store in unlabeled containers.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Fuel oil No. 2 (68476-30-2)	
ACGIH TWA (mg/m ³)	100 (inhalable fraction and vapor, as total hydrocarbons, listed under Diesel fuel)
Remark (OSHA)	OELs not established
Distillates, petroleum, hydrotreated middle (64742-46-7)	
Remark (ACGIH)	OELs not established
Remark (OSHA)	OELs not established
Benzene (71-43-2)	
ACGIH TWA (ppm)	0.5
ACGIH STEL (ppm)	2.5
OSHA PEL (TWA) (ppm)	1
OSHA PEL (STEL) (ppm)	5 (see 29 CFR 1910.1028)
OSHA PEL (Ceiling) (ppm)	25
Distillates, petroleum, full-range straight-run middle (68814-87-9)	
Remark (ACGIH)	OELs not established
Remark (OSHA)	OELs not established
Distillates, petroleum, light catalytic cracked (64741-59-9)	
Remark (ACGIH)	OELs not established
Remark (OSHA)	OELs not established

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8.2. Exposure controls

Appropriate engineering controls : Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment with flammable materials. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment : Gloves. Protective goggles. Wear chemically impervious apron over labcoat and full coverage clothing.



Hand protection : Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM F1296. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl. . Suitable gloves for this specific application can be recommended by the glove supplier.

Eye protection : Wear eye protection, including chemical splash goggles and a face shield when possibility exists for eye contact due to spraying liquid or airborne particles.

Skin and body protection : Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure.

Respiratory protection : Use NIOSH-approved dust/particulate respirator. Where vapor, mist, or dust exceed PELs or other applicable OELs, use NIOSH-approved respiratory protective equipment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Viscous liquid.
Color	: Transparent. light brown. Clear.
Odor	: Petroleum-like odor. Oily Odor.
Odor Threshold	: 0.02 ppm ("rotten egg")
pH	: No data available
Relative evaporation rate (butylacetate=1)	: > 10
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 177 - 371 °C (350 - 700 °F)
Flash point	: 38 - 82 °C (100 - 180 °F)
Auto-ignition temperature	: > 260 °C (500 °F)
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: 1 mm Hg @ 20 °C (68 °F)
Relative vapor density at 20 °C	: > 5 (Air = 1)
Relative density	: 0.9 (typical)
Solubility	: Insoluble.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: 1.9 - 4.1 cSt (0.019 - 0.041 cm ² /s) @ 40 °C (104 °F)
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: 0.6 - 7.5 vol %

9.2. Other information

VOC content : > 50 % by volume

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

None known.

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10.4. Conditions to avoid

Avoid contact with : Ignition sources. Incompatible materials.

10.5. Incompatible materials

Oxidizing agent.

10.6. Hazardous decomposition products

Thermal decomposition generates : Hydrocarbons. Carbon oxides (CO, CO₂). Water. Organic acids. Aldehydes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Inhalation:dust/mist: Harmful if inhaled.

Fuel oil No. 2 (68476-30-2)	
LD50 oral rat	12 g/kg
LD50 dermal rabbit	4720 µl/kg

Distillates, petroleum, hydrotreated middle (64742-46-7)	
LD50 oral rat	7400 mg/kg
LD50 dermal rabbit	> 2000 mg/kg

Benzene (71-43-2)	
LD50 dermal rabbit	> 8200 mg/kg
LC50 inhalation rat (mg/l)	44.66 mg/l/4h (vapor)

Distillates, petroleum, full-range straight-run middle (68814-87-9)	
LD50 oral rat	5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	1.72 mg/l/4h

Distillates, petroleum, light catalytic cracked (64741-59-9)	
LD50 oral rat	3200 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat (mg/l)	3.4 mg/l/4h

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : May cause genetic defects.
Carcinogenicity : May cause cancer.

Benzene (71-43-2)	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	2 - Known Human Carcinogens

Reproductive toxicity : Not classified
Specific target organ toxicity (single exposure) : Not classified
Specific target organ toxicity (repeated exposure) : May cause damage to organs (liver, spleen, bone marrow) through prolonged or repeated exposure.
Aspiration hazard : May be fatal if swallowed and enters airways.
Symptoms/injuries after inhalation : Harmful if inhaled.
Symptoms/injuries after skin contact : May cause skin irritation.
Symptoms/injuries after eye contact : Direct contact with the eyes is likely to be irritating.
Symptoms/injuries after ingestion : May be fatal if swallowed and enters airways.
Chronic symptoms : May cause genetic defects. May cause cancer. May cause damage to organs through prolonged or repeated exposure.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : No information available.

12.2. Persistence and degradability

No. 2 Fuel Oil	
Persistence and degradability	No information available.

12.3. Bioaccumulative potential

No. 2 Fuel Oil	
Bioaccumulative potential	No information available.

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12.4. Mobility in soil

No. 2 Fuel Oil	
Ecology - soil	No information available.

12.5. Other adverse effects

Other adverse effects : No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Obtain the consent of pollution control authorities before discharging to wastewater treatment plants.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment.

SECTION 14: Transport information

In accordance with DOT

Transport document description : NA1993 Diesel fuel (Fuel Oil, No. 2), 3, III

DOT NA no. : NA1993

Proper Shipping Name (DOT) : Diesel fuel
Fuel Oil, No. 2

Department of Transportation (DOT) Hazard Classes : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Packing group (DOT) : III - Minor Danger

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 60 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 220 L

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

Additional information

Other information : No supplementary information available.

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

No. 2 Fuel Oil	
All components of this product are listed on the TSCA Inventory or are exempt	
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard Immediate (acute) health hazard Fire hazard

15.2. International regulations

CANADA

Unleaded Gasoline (NO Ethanol)
All chemical substances in this product are listed on the Canadian DSL (Domestic Substances List)

15.3. US State regulations

California Proposition 65

WARNING! This product contains chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm.

Benzene (71-43-2)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes	Yes	No	Yes	6.4 (oral) µg/day 13 (inhalation) µg/day

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Benzene (71-43-2)

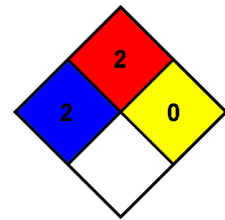
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Hydrogen sulfide (7783-06-4)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

SECTION 16: Other information

Indication of changes : Revision 1.0: New SDS Created.
Revision date : 03/06/2015
Other information : Author: BCS.
NFPA health hazard : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.
NFPA fire hazard : 2 - Must be moderately heated or exposed to relatively high temperature before ignition can occur.
NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health : 2*
Flammability : 2
Physical : 0
Personal Protection :

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