



# FUEL OIL NO. 6

## Safety Data Sheet

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

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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 : FUEL OIL NO. 6  
Product form : Mixture  
CAS No : 68553-00-4  
Formula : A high-viscosity residual oil  
Other means of identification : Bunker C, Bunker fuels; IFO 180, IFO 280 AND IFO 380, utility fuel oil; heavy fuel oil; residual fuel oil; #6 residual fuel oil blendstock; ASTM No. 6 Grade Fuel Oil (D396).

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

Use of the substance/mixture : Used in industrial burners, boiler fuel for electric utilities and bunker fuel for ocean going vessels. A Thick oil, fuel oil No. 6 is not usually used unless preheated to decrease its viscosity.

#### 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  
Carc. 1B H350

#### 2.2. Label elements

##### GHS label elements

##### Hazard pictograms



##### Signal word

: Danger

##### Hazard statements

: Harmful if inhaled.  
Causes eye irritation.  
May cause genetic defects.  
May cause cancer.  
Suspected of damaging the unborn child.  
May be fatal if swallowed and enters airways.  
May cause damage to organs through prolonged or repeated exposure. (liver, thymus)  
Very toxic to aquatic life with long lasting effects.

##### Precautionary statements

##### Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Do not breathe vapor. Wash hands thoroughly after handling.

#### 2.3. Other hazards

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

No data available

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### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

Name	Product identifier	%
Fuel oil, no. 6	(CAS No) 68553-00-4	60 - 100
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 affected. If breathing is difficult, supply oxygen.
- 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 if you feel unwell.

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

- Symptoms/injuries : Suspected of causing cancer.
- Symptoms/injuries after inhalation : May cause respiratory irritation.
- 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 cause gastrointestinal irritation.
- Chronic symptoms : Suspected of causing cancer.

#### 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. Water fog.
- Unsuitable extinguishing media : Do not use direct water stream. May spread fire.

#### 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.

### 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.

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### 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 : 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

Technical measures : Use explosion-proof equipment.

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. Ground and bond all transfer and storage equipment.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Fuel oil, no. 6 (68553-00-4)	
Remark (ACGIH)	OELs not established
Remark (OSHA)	OELs not established

### 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 : Brown. Black.

Odor : Heavy, petroleum/asphalt odor.

Odor Threshold : No data available

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pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: > 260 °C (500 °F)
Flash point	: 60 °C (140 °F) minimum
Auto-ignition temperature	: 407 °C (765 °F)
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: 0.2 mm Hg @ 21 °C (70 °F)
Relative vapor density at 20 °C	: No data available
Relative density	: 0.9 - 1.07 (H <sub>2</sub> O = 1) @ 15 °C (60 °F)
Solubility	: Insoluble (water)
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: 96 cSt @ 50 °C (122 °F)
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: 3.9 - 20.1 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.

### 10.4. Conditions to avoid

Avoid contact with hot surfaces. 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, CO<sub>2</sub>). Sulfur oxides.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

<b>FUEL OIL NO. 6 ( \f )68553-00-4</b>	
LD50 oral rat	9 g/kg

<b>Fuel oil, no. 6 (68553-00-4)</b>	
LD50 oral rat	5300 mg/kg
LD50 dermal rabbit	> 2000 mg/kg

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: May cause cancer.
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

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Symptoms/injuries after inhalation	: May cause respiratory irritation.
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 cause gastrointestinal irritation.
Chronic symptoms	: Suspected of causing cancer.

### SECTION 12: Ecological information



**GHS Classification:**  
**H411 -- Hazardous to the aquatic environment, chronic toxicity -- Category 2**  
Toxic to aquatic life with long lasting effects.

Product/ingredient name	Result	Species	Exposure
Naphthalene	Acute EC50 1.6 ppm Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 2350 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 213 µg/l Fresh water	Fish - Melanotaenia fluviatilis - Larvae	96 hours
Hydrogen sulfide	Chronic NOEC 0.5 mg/l Marine water	Crustaceans - Uca pugnax - Adult	3 weeks
	Chronic NOEC 1.5 mg/l Fresh water	Fish - Oreochromis mossambicus	60 days
	Acute EC50 62 µg/l Fresh water	Crustaceans - Gammarus pseudolimnaeus	2 days
	Acute LC50 2 µg/l Fresh water	Fish - Coregonus clupeaformis - Yolk-sac fry	96 hours

### 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 Fuel oil (Fuel Oil No. 6), 3, III
DOT NA no.	: NA1993
Proper Shipping Name (DOT)	: Fuel oil Fuel Oil No. 6
Department of Transportation (DOT) Hazard Classes	: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Hazard labels (DOT)	: 3 - Flammable liquid



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.
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#### Transport by sea

No additional information available

#### Air transport

No additional information available

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### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

##### FUEL OIL NO. 6 (68553-00-4)

All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory  
All the constituents of this preparation are registered in the EINECS inventory or in the ELINCS list

SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard Fire hazard
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#### 15.2. International regulations

##### CANADA

##### FUEL OIL NO. 6

All chemical substances in this product are listed on the Canadian DSL (Domestic Substances List)

#### 15.3. US State regulations

##### California Proposition 65

This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm.

##### Sulfur (7704-34-9)

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

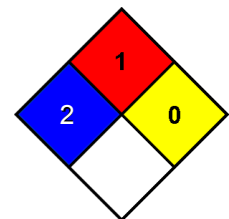
##### Hydrogen sulfide (7783-06-4)

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 : 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was 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 : 3\*  
Flammability : 2  
Physical : 0  
Personal Protection :

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