



Safety Data Sheet

Prepared according to GHS

1. Identification

Product Name	No. 6 Fuel Oil, Heavy Fuel Oil
Product Code	8201, 8202
Recommended Use	Fuel Oil
Company	American Refining Group, Inc. 77 North Kendall Avenue Bradford, PA 16701 www.amref.com msds@amref.com
Emergency Telephone Number(s)	Chemtrec 1-800-424-9300 (24 HRS) ARG: 814-368-1297 (24 HRS)

2. Hazards Identification

GHS Classification	STOT Category 2 Germ Cell Mutagenicity Category 2 Carcinogenicity Category 2 Skin Corrosion/Irritation Category 2
Signal Word	WARNING!
Hazard Statements	May cause damage to organs liver, spleen, thymus, bone marrow through prolonged or repeated exposure dermally. Suspected of causing genetic defects. Suspected of causing cancer. Causes skin irritation

GHS Pictogram



Precautionary Statements

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves/protective clothing/eye protection/face protection.
Avoid breathing dust/fume/gas/mist/ vapors/spray.
Use only outdoors or in a well-ventilated area.
If exposed or concerned: Get medical advice/attention.
If swallowed: Immediately call a poison center/doctor.

2. Hazards Identification

If inhaled: Remove person to fresh air and keep comfortable for breathing.

Store locked up.

Dispose of contents/container to in accordance with local/national regulations.

Wash thoroughly after handling.

If on skin: wash with plenty of soap and water.

If skin irritation occurs: get medical attention/advice.

Take off contaminated clothing and wash before reuse.

3. Composition / Information on Ingredients

CAS No.	Component	Common Name	Percent
68553-00-4	Fuel Oil No. 6	Gas Oil, Full Range	100%

4. First Aid Measures

Eyes

Check for and remove any contact lenses. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Get medical attention if irritation occurs.

Skin

In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

Inhalation

Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Ingestion

DO NOT INDUCE VOMITING. Seek medical attention immediately.

Symptoms(Acute and delayed)

May cause damage to organs liver, spleen, thymus, bone marrow through prolonged or repeated exposure dermally.

Suspected of causing genetic defects.

Suspected of causing cancer.

Causes skin irritation

Note to Physicians

No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire Fighting Measures

Suitable Extinguishing Media

Use dry chemical, CO₂, water spray (FOG) or foam

Unsuitable Extinguishing Media

Avoid solid water stream as it may scatter and spread fire.

Specific Hazards Arising from Chemical

Elevated temperatures can lead to the formation of irritating fumes and vapors. Decomposing products may

5. Fire Fighting Measures

include the following materials: Carbon dioxide and Carbon monoxide.

Protective Equipment and Precautions for Firefighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental Release Measures

Personal Precautions

Put on appropriate personal protective equipment.

Environmental Precautions

Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods for Containment

Stop leak if without risk.

Methods for Cleanup

Cover liquid spill with sand, earth or other noncombustible absorbent material. Cover powder spill with plastic sheet or tarp to minimize spreading. Pick up and transfer to properly labeled container

7. Handling and Storage

Handling Procedures

Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist

Shipping and Storing Procedures

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat. Protect from light. Keep in properly labeled containers. Keep out of the reach of children.

Incompatibilities:

Oxidizing Agents

8. Exposure Controls / Personal Protection

Component Exposure Limits

Oil Mist (Mineral)

ACGIH TLV:	TWA:	N/A ppm	TWA:	5 mg/m ³	STEL:	N/A ppm	STEL:	10 mg/m ³
OSHA PEL:	TWA:	N/A ppm	TWA:	5 mg/m ³	STEL:	N/A ppm	STEL:	N/A mg/m ³
NIOSH REL:	TWA:	N/A ppm	TWA:	5 mg/m ³	STEL:	N/A ppm	STEL:	10 mg/m ³

N/A signifies not available

*Product has 0 kPa pressure at 68°F and is not expected to present any inhalation hazard at ambient conditions. Caution should be taken to prevent aerosolization or misting of this product. Oil mist, if generated, is considered hazardous according to the OSHA Hazard Communication Standard.

Engineering Controls

Material should be handled in enclosed vessels and equipment only if aerosolized, misted and/or heated up. Use only in adequate ventilation if this occurs. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Eye/Face Protection

Chemical goggles or face shield.

Skin Protection

Chemical resistant, impervious gloves complying with an approved

8. Exposure Controls / Personal Protection

Respiratory Protection

standard should be worn at all times. Coveralls, apron, and boots as necessary to minimize contact.

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicated this is necessary. Respirator selection must be based on known or anticipated exposure levels.

General Hygiene

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing.

9. Physical and Chemical Properties

Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Please see the Product Specification Sheet for further information.

Appearance	Opaque	Flammability	Not Available
Physical State	Liquid	Upper/Lower Flammability Limits	Not Available
Odor	Petroleum oil	Vapor Pressure	Not Available
Odor Threshold	Not Available	Vapor Density	Not Available
pH	Not Available	Relative Density (lbs/gal)	7.728
Melting/Freezing Point (°F)	Not Available	Water Soluble	No
Initial Boiling Point (°F)	Not available	Partition Coefficient: n-octanol/water	1.7-25
Boiling Range (°F)	Not Available	Auto-ignition Temperature (°F)	Not Available
Flash Point (°F)	400	Decomposition Temperature (°F)	Not Available
Evaporation Rate	Not Available	Viscosity @ 40°C, cSt	26.5

10. Chemical Stability & Reactivity Information

Reactivity	Polymerization will not occur
Chemical Stability	Stable under normal conditions
Hazardous Reactions	None, under normal processing.
Conditions to Avoid	High temperatures, flames, sparks
Incompatibility	Strong acids and oxidizing materials
Hazardous Decomposition Products	Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion.

11. Toxicological Information

Acute Exposure

Respiratory Irritation

An inhalation hazard may only arise if product is used in aerosol conditions or if heated up. If material is misted or if vapors are generated from heating,

11. Toxicological Information

	exposure may cause irritation of mucous membranes and upper respiratory tract.
Eye Irritation	Not expected to cause eye irritation under normal use.
Skin Irritation	May cause skin irritation. Redness or itchiness varies depending upon exposure.
Sensitization	Not expected to cause skin or respiratory sensitization.
Chronic Exposure Target Organ Effects	Repeated dose dermal studies indicate that toxicity induced by different Heavy Fuel Oil streams affected essentially the same organ systems (liver, spleen, thymus and bone marrow). Systemic NOAEL (mg/kg/day): 65-237
Carcinogenicity	Dermal carcinogenicity studies performed with catalytic cracked clarified oil [CAS RN 64741-62-4] demonstrated that materials with a high content of PACs are dermal carcinogens and act primarily by initiating tumor development. Read-across results from whole vacuum residual samples in the Asphalt Category Assessment Document indicated that similar materials with a different distribution of PAC were not dermal carcinogens. Thus, the content and analytical profiles of PACs play a significant role in skin cancer in mice. Diesel exhaust fumes are considered carcinogenic by IARC.
Mutagenicity	In vitro studies demonstrate that streams in the heavy fuel oil category are generally mutagenic. In vivo studies show that overall, the weight of evidence from studies for chromosome damage or micronucleus formation indicate that heavy fuel oils are generally not clastogenic in animals regardless of crude source or processing.
Reproductive Toxicity	No data available to indicate either product or components present at greater than .1% that may cause reproductive toxicity.
Teratogenicity	No data available to indicate product or any components contained at greater than .1% may cause birth defects.

Analysis – LD50 / LC50

Inhalation LC50 Rat	Not available	mg/L
Oral LD50 Rat	>5000	mg/kg
Dermal LD50 Rabbit	>2000	mg/kg

12. Ecological Information

Component Analysis- Ecotoxicity – Aquatic Life

Duration/Test/Species	Concentration/Conditions
96 hr LL50 Aquatic Vertebrates	>1000 mg/L
96 hr EL50 Algae	>220; <460 mg/L
7 Day EL50 <i>Daphnia magna</i>	>1000 mg/L

Persistence & Degradability	Inherently biodegradable
Bioaccumulation Potential	Not Available

Other Adverse Effects

The constituents with heavier molecular weights may float or sink, when in contact with water, depending on density relations. These constituents will eventually become incorporated with the soil and may participate, at least partially, with microbes in biodegradation.

Data for heavy fuel oils showed slight or no acute toxicity to fish when tested as either WAFs or OWDs

13. Disposal Considerations

Disposal Instructions

The generation of waste should be avoided or minimized wherever possible. Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

14. Transportation Information

Emergency Response Guide No. 171

North American Emergency Response Guide Book

	UN Number	Shipping Name (technical name)	Hazard Class	Packing Group
U.S. DOT Bulk		Not Regulated		
U.S. DOT Non-Bulk		Not Regulated		

15. Regulatory Information

SARA Extremely Hazardous Substances (Sections 302 & 304)

This product does not contain greater than 1% of any “extremely hazardous substances” listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

SARA Section 313

This product does not contain greater than 1.0% of the substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

SARA Section 311 & 312 Classifications

Acute Hazard	Yes
Chronic Hazard	Yes
Fire Hazard	No
Reactivity Hazard	No

CERCLA

This product does not contain any “hazardous substances” listed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4.

California Prop 65

This product is not routinely tested to determine chemicals known by the State of California to cause cancer and/or birth defects. Moreover, we do not routinely analyze its products for impurities which may be such chemicals.

Global Chemical Inventories

Inventory	
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US TSCA	Present
EU	Present
Japan	Not available
Australia	Present
New Zealand	Present
Canada	Present
Switzerland	Not available
Korea	Present
Philippines	Present
China	Not available
Taiwan	Not available

16. Other Information

US NFPA Ratings

Health	Fire	Reactivity
1	1	0

HMIS Ratings

Health	Fire	Physical Hazards
1	1	0

Revision Date

2 April 2015

Revision Reason

New SDS

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of SDS