



Safety Data Sheet

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name

- **Gas Oil**

Synonyms

- Cat Charge; Coker Gas; Heavy Coker Gasoil; Heavy Vacuum Gasoil; Intermediate Vacuum Gasoil; Light Coker Gas oil; Light Vacuum Gasoil

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

- Relevant identified use(s) • FCC Feed, and Placard as 1202

1.3 Details of the supplier of the safety data sheet

Manufacturer

- Delek Refining, Ltd.
425 McMurrey Drive
Tyler, TX 75702
United States
www.delekus.com

Telephone (General) • 903-579-3400

1.4 Emergency telephone number

Manufacturer

- (800) 424-9300 - 24 Hour CHEMTREC - National

Manufacturer

- (703) 527-3887 - 24 Hour CHEMTREC - International

Section 2: Hazards Identification

EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP

- Skin Irritation 2 - H315
Acute Toxicity Inhalation 4 - H332
Carcinogenicity 1B - H350
Hazardous to the aquatic environment Chronic 2 - H411

DSD/DPD

- Harmful (Xn)
Irritant (Xi)
Carcinogenic Substances - Category 2
Dangerous to the Environment (N)
R20, R38, R45, R51, R53

2.2 Label Elements

CLP

DANGER



- Hazard statements**
- H315 - Causes skin irritation
 - H332 - Harmful if inhaled
 - H350 - May cause cancer.
 - H411 - Toxic to aquatic life with long lasting effects

Precautionary statements

- Prevention**
- P201 - Obtain special instructions before use.
 - P202 - Do not handle until all safety precautions have been read and understood.
 - P261 - Avoid breathing mists, vapours, and/or spray.
 - P264 - Wash thoroughly after handling.
 - P271 - Use only outdoors or in a well-ventilated area.
 - P273 - Avoid release to the environment.
 - P281 - Use personal protective equipment as required.
- Response**
- P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 - P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
 - P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
 - P362 - Take off contaminated clothing and wash before reuse.
 - P321 - Specific treatment, see supplemental first aid information.
 - P332+P313 - If skin irritation occurs: Get medical advice/attention.
 - P308+P313 - IF exposed or concerned: Get medical advice/attention.
 - P391 - Collect spillage.
- Storage/Disposal**
- P405 - Store locked up.
 - P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD



- Risk phrases**
- R20 - Harmful by inhalation.
 - R38 - Irritating to skin.
 - R45 - May cause cancer.
 - R51 - Toxic to aquatic organisms.
 - R53 - May cause long-term adverse effects in the aquatic environment.
- Safety phrases**
- S53 - Avoid exposure - obtain special instructions before use.
 - S57 - Use appropriate containment to avoid environmental contamination.

2.3 Other Hazards

- CLP**
- According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.
- DSD/DPD**
- According to European Directive 1999/45/EC this material is considered dangerous.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

- OSHA HCS 2012**
- Skin Irritation 2
 - Acute Toxicity Inhalation 4
 - Germ Cell Mutagenicity 2
 - Carcinogenicity 2
 - Reproductive Toxicity 2
 - Specific Target Organ Toxicity Repeated Exposure 1

2.2 Label elements

OSHA HCS 2012

DANGER

- Hazard statements**
- Causes skin irritation
 - Harmful if inhaled
 - Suspected of causing genetic defects.
 - Suspected of causing cancer.
 - Suspected of damaging fertility or the unborn child.
 - Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

- Prevention**
- Obtain special instructions before use.
 - Do not handle until all safety precautions have been read and understood.
 - Do not breathe mists, vapours, and/or spray.
 - Wash thoroughly after handling.
 - Do not eat, drink or smoke when using this product.
 - Use only outdoors or in a well-ventilated area.
 - Wear protective gloves, clothing, and eye/face protection, .
- Response**
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 - Call a POISON CENTER or doctor/physician if you feel unwell.
 - If on skin: Wash with plenty of water .
 - Take off contaminated clothing and wash before reuse.
 - Specific treatment, see supplemental first aid information.
 - If skin irritation occurs: Get medical advice/attention.
 - IF exposed or concerned: Get medical advice/attention.

- Storage/Disposal**
- Store locked up.
 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards**OSHA HCS 2012**

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture**WHMIS**

- Toxic - D1B
- Other Toxic Effects - D2A
- Other Toxic Effects - D2B

2.2 Label elements**WHMIS**

- Toxic - D1B
- Other Toxic Effects - D2A
- Other Toxic Effects - D2B

2.3 Other hazards**WHMIS**

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Gas oil, blend	CAS:64741-44-2 EC Number:265-044-7	100%	Inhalation-Rat LC50 • 1700 mg/m ³ 4 Hour(s)	EU DSD/DPD: Xi; R38 Xn; R20; Carc. Cat. 2, R45; N R51-R53 EU CLP: Skin Irrit. 2, H315; Acute Tox. 4, H332; Carc. 1B, H350; Aquatic Chronic 2, H411 OSHA HCS 2012: Skin Irrit. 2; Acute Tox. 4 (inhl); Muta. 2; Carc. 2; Repr. 2; STOT RE 1 (Blood, Eyes; Oral, Inhl)	NDA
Fuel oil, residual [50%]	CAS:68476-33-5 EC Number:270-675-6 EU Index:649-024-00-9	50%	NDA	EU DSD/DPD: Annex VI, Table 3.2: Carc. Cat. 2, R45 EU CLP: Annex VI, Table 3.1: Carc. 1B, H350 OSHA HCS 2012: Carc. 2	NDA
Soybean oil, polymer with maleic anhydride and tung oil, calcium salt [[< 25%]	CAS:68814-37-9	< 25%	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA
Polynuclear Aromatics [5%]	NDA	5%	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA
Naphthalene [3%]	CAS:91-20-3 EC Number:202-049-5 EU Index:601-052-00-2	3%	Skin-Rabbit LD50 • >20 g/kg Ingestion/Oral-Rat LD50 • 490 mg/kg	EU DSD/DPD: Annex VI, Table 3.2: Carc. Cat. 3, R40; Xn, R22; N, R50, R53 EU CLP: Annex VI, Table 3.1: Carc. 2, H351; Acute Tox. 4, H302; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 OSHA HCS 2012: Flam. Sol. 2; Acute Tox. 4 (orl); Skin Irrit. 2; Muta. 2; Carc. 2; Repr. 2; STOT SE 3: Narc.; STOT RE 1 (Blood, Eyes; Oral, Inhl)	NDA

See Section 16 for full text of H-statements and R-phrases.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. Seek medical attention.

Skin

- IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. For minor skin contact, avoid spreading material on unaffected skin. Take off contaminated clothing and wash before reuse.

Eye

- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical

advice/attention.

Ingestion

- Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. If person is drowsy or unconscious and vomiting, place on the left side with the head down. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- Material if aspirated into the lungs may cause chemical pneumonitis. Treat appropriately.

4.4 Other information

- Call 911 or emergency medical service. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Keep victim warm and quiet.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media

- SMALL FIRES: Dry chemical, CO₂, water spray or regular foam.
LARGE FIRE: Water spray, fog or regular foam.

Unsuitable Extinguishing Media

- No data available.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards

- Combustible material: may burn but does not ignite readily. May be ignited by heat, sparks or flames. Containers may explode when heated. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapors may travel to source of ignition and flash back. Vapors may form explosive mixtures with air. Vapor explosion hazard indoors, outdoors or in sewers.

Hazardous Combustion Products

- Burning or excessive heating may produce smoke, carbon monoxide, carbon dioxide, or other harmful gasses/vapors.

5.3 Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA). Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
LARGE FIRES: Dike fire control water for later disposal; do not scatter the material.
LARGE FIRES: Use water spray or fog; do not use straight streams. Move containers from fire area if you can do it without risk.
FIRE INVOLVING TANKS AND CAR/TRAILER LOADS: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
FIRES INVOLVING TANKS OR CAR/TRAILER LOADS: Cool containers with flooding quantities of water until well after fire is out.
FIRES INVOLVING TANKS OR CAR/TRAILER LOADS: Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
FIRES INVOLVING TANKS OR CAR/TRAILER LOADS: ALWAYS stay away from tanks engulfed in fire.
FIRES INVOLVING TANKS OR CAR/TRAILER LOADS: For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions

- Do not walk through spilled material. Wear appropriate protective equipment including respiratory protection as conditions warrant. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Emergency Procedures

- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Stop leak if you can do it without risk. Ventilate closed spaces before entering.

6.2 Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas. If spill of any amount is made into or upon navigable waters, the contiguous zone, or adjoining shorelines, notify the National Response Center (Phone number 800-424-8802)

6.3 Methods and material for containment and cleaning up**Containment/Clean-up Measures**

- Immediate clean-up of spill is recommended.
All equipment used when handling the product must be grounded.
A vapor suppressing foam may be used to reduce vapors.
Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
Use clean non-sparking tools to collect absorbed material.
LARGE SPILLS: Dike far ahead of liquid spill for later disposal.
LARGE SPILLS: Water spray may reduce vapor; but may not prevent ignition in closed spaces.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage**7.1 Precautions for safe handling****Handling**

- Use only with adequate ventilation. Empty containers retain residue and may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury or death. Handle as combustible liquid. Keep away from heat, sparks, and flame – No Smoking. Bond and ground all equipment when transferring from one vessel to another. Product can accumulate static charge by flow or agitation. Do not enter confined spaces such as tanks or pits without following proper entry procedures. Wear appropriate personal protective equipment, avoid direct contact. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities**Storage**

- Store in a cool/low-temperature, well-ventilated place away from heat and ignition sources. Store only in approved containers. Store locked up. Keep container tightly closed. Containers should be clearly labeled. Protect containers against physical damage. Keep away from incompatible materials. Keep away from fire.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection**8.1 Control parameters**

Exposure Limits/Guidelines				
	Result	ACGIH	NIOSH	OSHA
Naphthalene (91-20-3)	TWAs	10 ppm TWA	10 ppm TWA; 50 mg/m ³ TWA	10 ppm TWA; 50 mg/m ³ TWA
	STELs	15 ppm STEL	15 ppm STEL; 75 mg/m ³ STEL	Not established

8.2 Exposure controls

Engineering Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash station and quick-drench shower facility should be available in the work area.

Personal Protective Equipment

Respiratory

- Use NIOSH approved respiratory protection (US requirements) Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear protective eyewear (goggles, face shield, or safety glasses).

Skin/Body

- Chemical-resistant, impervious gloves should be when handling this product. Wear protective clothing

Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

MSHA = Mine Safety and Health Administration

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description

Physical Form	Liquid	Appearance/Description	Black to bronze colored liquid with aromatic odor.
Color	Black to bronze.	Odor	Aromatic Odor (Petroleum Characteristics)
Odor Threshold	Data lacking		

General Properties

Boiling Point	650 F(343.3333 C)	Melting Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	0.94 to 1	Water Solubility	Data lacking
Viscosity	Data lacking	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		

Volatility

Vapor Pressure	< 1 mmHg (torr)	Vapor Density	> 10 Air=1
Evaporation Rate	< 0.1 n-Butyl Acetate = 1	Volatiles (Wt.)	100 %
Volatiles (Vol.)	100 %		

Flammability

Flash Point	200 F(93.3333 C) TCC (Tagliabue Closed Cup)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Data lacking		

Environmental

Octanol/Water Partition coefficient	Data lacking		
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9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Sources of ignition.

10.5 Incompatible materials

- Strong oxidants such as liquid chlorine, concentrated oxygen, sodium hypochlorite, calcium hypochlorite, etc.

10.6 Hazardous decomposition products

- Incomplete combustion can produce carbon monoxide.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

		Components
Gas oil, blend (100%)	64741-44-2	Acute Toxicity: Ingestion/Oral-Rat LDLo • >5 g/kg; Behavioral:Somnolence (general depressed activity); Gastrointestinal:Hypermotility, diarrhea; Inhalation-Rat LC50 • 1700 mg/m ³ 4 Hour(s); Irritation: Skin-Rabbit • 500 mg • Moderate irritation; Tumorigen / Carcinogen: Skin-Mouse TDLo • 29250 mg/kg 20 Week(s)-Intermittent; Tumorigenic:Carcinogenic by RTECS criteria; Skin and Appendages:Other:Tumors; Lungs, Thorax, or Respiration:Tumors
Naphthalene (3%)	91-20-3	Acute Toxicity: Ingestion/Oral-Rat LD50 • 490 mg/kg; Ingestion/Oral-Mouse TDLo • 158 mg/kg; Brain and Coverings:Other degenerative changes; Liver:Other changes; Biochemical:Metabolism (intermediary):Lipids, including transport; Inhalation-Human TCLo • 250 mg/m ³ ; Sense Organs and Special Senses:Eye:Lacrimation; Behavioral:Headache; Skin-Rabbit LD50 • >20 g/kg; Unreported-Guinea Pig LD50 • 1200 mg/kg; Behavioral:Somnolence (general depressed activity); Irritation: Skin-Rabbit • 0.05 mL 24 Hour(s) • Severe irritation; Multi-dose Toxicity: Ingestion/Oral-Rat TDLo • 500 mg/kg 10 Day(s)-Intermittent; Behavioral:Sleep; Lungs, Thorax, or Respiration:Dyspnea; Ingestion/Oral-Rat TDLo • 4500 mg/kg 10 Day(s)-Intermittent; Brain and Coverings:Other degenerative changes; Mutagen: Micronucleus test • Unreported Route-Human • Lymphocyte (Somatic cell) • 30 mg/L; Reproductive: Ingestion/Oral-Mouse TDLo • 2400 mg/kg (7-14D preg); Reproductive Effects:Effects on Newborn:Live birth index; Reproductive Effects:Effects on Newborn:Viability index (e.g., # alive at day 4 per # born alive); Ingestion/Oral-Rat TDLo • 4500 mg/kg (6-15D preg); Reproductive Effects:Effects on Embryo or Fetus:Fetotoxicity (except death, e.g., stunted fetus); Reproductive Effects:Specific Developmental Abnormalities:Other developmental abnormalities; Tumorigen / Carcinogen: Inhalation-Mouse TCLo • 30 ppm 6 Hour(s) 2 Year(s)-Intermittent; Tumorigenic:Neoplastic by RTECS criteria; Lungs, Thorax, or Respiration:Tumors; Inhalation-Rat TCLo • 60 ppm 6 Hour(s) 105 Week(s)-Intermittent; Tumorigenic:Carcinogenic by RTECS criteria; Sense Organs and Special Senses:Olfaction:Tumors

GHS Properties

Classification

Acute toxicity	EU/CLP • Acute Toxicity - Inhalation 4 OSHA HCS 2012 • Acute Toxicity - Inhalation 4
Aspiration Hazard	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Carcinogenicity	EU/CLP • Carcinogenicity 1B OSHA HCS 2012 • Carcinogenicity 2
Germ Cell Mutagenicity	EU/CLP • Data lacking OSHA HCS 2012 • Germ Cell Mutagenicity 2
Skin corrosion/Irritation	EU/CLP • Skin Irritation 2 OSHA HCS 2012 • Skin Irritation 2
Skin sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
STOT-RE	EU/CLP • Data lacking OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 1
STOT-SE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Toxicity for Reproduction	EU/CLP • Data lacking OSHA HCS 2012 • Toxic to Reproduction 2
Respiratory sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Serious eye damage/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking

Potential Health Effects

Inhalation

Acute (Immediate)

- Harmful if inhaled. High vapor concentrations can produce central nervous system depression. May cause mild irritation.

Chronic (Delayed)

- No data available

Skin

Acute (Immediate)

- Causes skin irritation.

Chronic (Delayed)

- Petroleum products are skin defatting agents and can cause dermatitis on prolonged or repeated exposure.

Eye

Acute (Immediate)

- May cause irritation.

Chronic (Delayed)

- No data available.

Ingestion

Acute (Immediate)

- May affect the central nervous system. Symptoms may include dizziness, drowsiness, lethargy, coma and death.

Chronic (Delayed)

- No data available

Other

Chronic (Delayed)

- Studies have found repeated or prolonged exposure to naphthalene may have the following effects: chronic haemolytic anaemia and the development of cataracts.

Mutagenic Effects

- This material contains naphthalene, which has proven positive in mutagenicity tests.

Carcinogenic Effects

- Repeated and prolonged exposure may cause cancer. Evidence exists to indicate that mixtures of polynuclear aromatics are carcinogenic in humans. The evidence in humans comes primarily from occupational studies of workers exposed to mixtures containing polynuclear aromatics as a result of their involvement in such processes as coke production, roofing, oil refining, or coal gasification (e.g., coal tar, roofing tar, soot, coke oven emissions, soot, crude oil). Polynuclear aromatics, however, have not been

clearly identified as the causative agent. Cancer associated with exposure to polynuclear aromatic-containing mixtures in humans occurs predominantly in the lung and skin following inhalation and dermal exposure, respectively.

Carcinogenic Effects			
	CAS	IARC	NTP
Naphthalene	91-20-3	Group 2B-Possible Carcinogen	Reasonably Anticipated to be Human Carcinogen

Reproductive Effects

- Naphthalene has shown experimental reproductive effects.

Key to abbreviations

LC = Lethal Concentration

LD = Lethal Dose

TC = Toxic Concentration

TD = Toxic Dose

Section 12 - Ecological Information

12.1 Toxicity

Gas Oil					
Dosage	Species	Duration	Results	Exposure Conditions	Comments
0.213 mg/L	Fish: Melanotaeni a fluviatilis (Chrimson-Spotted Rainbowfish)	96 Hour(s)	LC50	NDA	Naphthalene
136 mg/L	Crustacea: Daphnia magna (Water flea)	48 Hour(s)	EC50	NDA	Naphthalene
4.15 mg/L	Aquatic Plant(s): Scenedesmus subspicatus (Green Algae)	7 Day(s)	NOEC	NDA	Naphthalene
1 mg/L	Crustacea: Daphnia magna (Water flea)	48 Hour(s)	NOEC	NDA	Naphthalene

12.2 Persistence and degradability

- Material Data Lacking.

12.3 Bioaccumulative potential

- Material Data Lacking.

12.4 Mobility in Soil

- Material Data Lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been conducted for this material.

12.6 Other adverse effects

Potential Environmental Effects

- Toxic to aquatic life with long lasting effects.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. Empty drums should be completely drained, properly bunged, and promptly shipped to the supplier or a drum reconditioner. All containers should be disposed of in an environmentally safe manner.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	UN1202	Gas oil	3	III	NDA
TDG	UN1202	GAS OIL	3	III	NDA
IMO/IMDG	UN1202	GAS OIL	3	III	NDA
IATA/ICAO	UN1202	Gas oil	3	III	NDA

14.6 Special precautions for user • None specified.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code • Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Acute, Chronic

Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
Fuel oil, residual	68476-33-5	Yes	No	Yes	No	Yes
Gas oil, blend	64741-44-2	Yes	No	Yes	No	Yes
Naphthalene	91-20-3	Yes	No	Yes	No	Yes

Canada

Labor

Canada - WHMIS - Classifications of Substances

• Gas oil, blend	64741-44-2	Not Listed
• Fuel oil, residual	68476-33-5	Not Listed
• Naphthalene	91-20-3	B4, D2A

Canada - WHMIS - Ingredient Disclosure List

• Gas oil, blend	64741-44-2	Not Listed
• Fuel oil, residual	68476-33-5	Not Listed
• Naphthalene	91-20-3	1 %

Environment

Canada - CEPA - Priority Substances List

• Gas oil, blend	64741-44-2	Not Listed
• Fuel oil, residual	68476-33-5	Not Listed
• Naphthalene	91-20-3	Not Listed

Other Agency Information

Other

AIHA - Emergency Response Planning Guidelines - ERPG-1 Values

• Gas oil, blend	64741-44-2	Not Listed
• Fuel oil, residual	68476-33-5	Not Listed
• Naphthalene	91-20-3	Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Gas oil, blend	64741-44-2	Not Listed
• Fuel oil, residual	68476-33-5	Not Listed
• Naphthalene	91-20-3	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Gas oil, blend	64741-44-2	Not Listed
• Fuel oil, residual	68476-33-5	Not Listed
• Naphthalene	91-20-3	Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• Gas oil, blend	64741-44-2	Not Listed
• Fuel oil, residual	68476-33-5	Not Listed
• Naphthalene	91-20-3	

U.S. - CAA (Clean Air Act) - Accidental Release Prevention - Flammable Substances

• Gas oil, blend	64741-44-2	Not Listed
• Fuel oil, residual	68476-33-5	Not Listed
• Naphthalene	91-20-3	Not Listed

U.S. - CAA (Clean Air Act) - Accidental Release Prevention - Toxic Substances

• Gas oil, blend	64741-44-2	Not Listed
• Fuel oil, residual	68476-33-5	Not Listed
• Naphthalene	91-20-3	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Gas oil, blend	64741-44-2	Not Listed
• Fuel oil, residual	68476-33-5	Not Listed
• Naphthalene	91-20-3	100 lb final RQ; 45.4 kg final RQ

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Gas oil, blend	64741-44-2	Not Listed
• Fuel oil, residual	68476-33-5	Not Listed
• Naphthalene	91-20-3	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Gas oil, blend	64741-44-2	Not Listed
• Fuel oil, residual	68476-33-5	Not Listed
• Naphthalene	91-20-3	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Gas oil, blend	64741-44-2	Not Listed
• Fuel oil, residual	68476-33-5	Not Listed
• Naphthalene	91-20-3	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Gas oil, blend	64741-44-2	Not Listed
• Fuel oil, residual	68476-33-5	Not Listed

• Naphthalene	91-20-3	0.1 % de minimis concentration
U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing		
• Gas oil, blend	64741-44-2	Not Listed
• Fuel oil, residual	68476-33-5	Not Listed
• Naphthalene	91-20-3	Not Listed
U.S. - RCRA (Resource Conservation & Recovery Act) - D Series Wastes - Max Conc of Contaminants for the Toxic Characteristic		
• Gas oil, blend	64741-44-2	Not Listed
• Fuel oil, residual	68476-33-5	Not Listed
• Naphthalene	91-20-3	Not Listed
U.S. - RCRA (Resource Conservation & Recovery Act) - F Series Wastes - Wastes from Nonspecific Sources		
• Gas oil, blend	64741-44-2	Not Listed
• Fuel oil, residual	68476-33-5	Not Listed
• Naphthalene	91-20-3	Not Listed
U.S. - RCRA (Resource Conservation & Recovery Act) - K Series Wastes - Wastes from Specified Sources		
• Gas oil, blend	64741-44-2	Not Listed
• Fuel oil, residual	68476-33-5	Not Listed
• Naphthalene	91-20-3	Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

• Gas oil, blend	64741-44-2	Not Listed
• Fuel oil, residual	68476-33-5	Not Listed
• Naphthalene	91-20-3	carcinogen, initial date 4/19/02

U.S. - California - Proposition 65 - Developmental Toxicity

• Gas oil, blend	64741-44-2	Not Listed
• Fuel oil, residual	68476-33-5	Not Listed
• Naphthalene	91-20-3	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Gas oil, blend	64741-44-2	Not Listed
• Fuel oil, residual	68476-33-5	Not Listed
• Naphthalene	91-20-3	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Gas oil, blend	64741-44-2	Not Listed
• Fuel oil, residual	68476-33-5	Not Listed
• Naphthalene	91-20-3	5.8 µg/day NSRL

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Gas oil, blend	64741-44-2	Not Listed
• Fuel oil, residual	68476-33-5	Not Listed
• Naphthalene	91-20-3	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• Gas oil, blend	64741-44-2	Not Listed
• Fuel oil, residual	68476-33-5	Not Listed
• Naphthalene	91-20-3	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

Relevant Phrases (code & full text)

- H302 - Harmful if swallowed
- H351 - Suspected of causing cancer.
- H400 - Very toxic to aquatic life
- H410 - Very toxic to aquatic life with long lasting effects
- R22 - Harmful if swallowed.
- R40 - Limited evidence of a carcinogenic effect.
- R50 - Very toxic to aquatic organisms.

Last Revision Date

- 11/May/2015

Preparation Date

- 04/January/2011

Disclaimer/Statement of Liability

- The above data is based on tests and experience which Delek Refining, Ltd believes reliable and is supplied for information purposes only. Delek Refining, Ltd disclaims any liability for damage or injury which results from the use of the above data and nothing contained therein shall constitute a guarantee, warranty (including warranty of merchantability) or representation (including freedom from patent liability) by Delek Refining, Ltd with respect to the data, the product described, to their use for any specific purpose, even if that purpose is known to Delek Refining, Ltd.

Key to abbreviations

NDA = No Data Available