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FuelBox Gas Oil 10 Plus	Product Code: FuelBox Gas Oil 10 Plus

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

Product name: FuelBox Gas Oil 10 Plus
Product description: Hydrocarbons and additives

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

Relevant identified uses: Diesel engine fuel
Intended Use: Heating Oil
Identified Uses:

- Manufacture of substance
- Distribution of substance
- Use as an intermediate
- Formulation and (re)packing of substances and mixtures
- Use in Coatings - Industrial
- Use in oil field drilling and production operations - Industrial
- Lubricants - Industrial
- Metal working fluids / rolling oils - Industrial
- Use as binders and release agents - Industrial
- Use as a fuel - Industrial
- Functional Fluids - Industrial
- Rubber production and processing
- Use in Coatings - Professional
- Use in oil field drilling and production operations - Professional
- Lubricants - Professional (Low Release)
- Lubricants - Professional (High Release)
- Use as binders and release agents - Professional
- Use as a fuel - Professional
- Road and construction applications
- Explosives manufacture & use
- Use as a fuel - Consumer

1.3 Details of the supplier of the Safety Data Sheet:

Supplier: New Era Fuels Ltd
 Goodman House, 2nd Floor, East Wing, Station Approach, Harlow,
 Essex, CM20 2ET
 Tel: +44 (0)1279 425 757
E-mail: info@newerafuels.co.uk
Internet: www.newerafuels.co.uk

1.4 Emergency telephone number:

Please Contact: New Era Fuels Ltd
Phone number(s): +44 (0)1279 425 757
Opening hours: Monday to Friday 8am – 5:30pm

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SECTION 2: Hazard Identification

2.1 Classification of the substance or mixture:

**Classification according to
Regulation (EC)
No 1272/2008:**

Flammable liquid: Category 3.
 Acute inhalation toxicant: Category 4.
 Skin irritation: Category 2.
 Carcinogen: Category 2.
 Specific target organ toxicant (repeated exposure): Category 2.
 Aspiration toxicant: Category 1.
 Chronic aquatic toxicant: Category 2.
 H226: Flammable liquid and vapour.
 H304: May be fatal if swallowed and enters airways.
 H315: Causes skin irritation.
 H332: Harmful if inhaled.
 H351: Suspected of causing cancer.
 H373: May cause damage to organs through prolonged or repeated exposure.
 H411: Toxic to aquatic life with long lasting effects.

Classification according to EU Directive 67/548/EEC / 1999/45 EC:

| Carc. Cat. 3; R40 | Xn; R20 | Xn; R65 | Xi; R38 | N; R51/53 |
 Category 3 Carcinogen. Harmful. Irritant. Dangerous for the environment.
 R40; Limited evidence of a carcinogenic effect.
 R20; Harmful by inhalation.
 R65; Harmful: may cause lung damage if swallowed.
 R38; Irritating to skin.
 R51/53; Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2 Label elements:

**Label elements according
to Regulation
(EC) No 1272/2008:**

Pictograms:



Signal Word: Danger

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SECTION 2: Hazard Identification (Continued)

Hazard Statements:	<p>H226: Flammable liquid and vapour. H304: May be fatal if swallowed and enters airways. H315: Causes skin irritation. H332: Harmful if inhaled. H351: Suspected of causing cancer. H373: May cause damage to organs through prolonged or repeated exposure. H411: Toxic to aquatic life with long lasting effects.</p>
Precautionary Statements:	<p>P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood. P210: Keep away from heat/sparks/open flames/hot surfaces. -- No smoking. P233: Keep container tightly closed. P240: Ground/bond container and receiving equipment. P241: Use explosion-proof electrical, ventilating, and lighting equipment. P242: Use only non-sparking tools. P243: Take precautionary measures against static discharge. P260: Do not breathe mist / vapours. P264: Wash skin thoroughly after handling. P271: Use only outdoors or in a well-ventilated area. P273: Avoid release to the environment. P280: Wear protective gloves/protective clothing/eye protection/face protection. P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P302 + P352: IF ON SKIN: Wash with plenty of soap and water. 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. P314: Get medical advice/attention if you feel unwell. P331: Do NOT induce vomiting. P332 + P313: If skin irritation occurs: Get medical advice/attention. P362 + P364: Take off contaminated clothing and wash it before reuse. P370 + P378: In case of fire: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish. P391: Collect spillage. P403 + P235: Store in a well-ventilated place. Keep cool. P405: Store locked up. P501: Dispose of contents and container in accordance with local regulations.</p>

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SECTION 2: Hazard Identification (Continued)

Contains: Fuels, diesel

2.3 Other hazards:

Physical / Chemical Hazards: Material can accumulate static charges which may cause an ignition. Material can release vapours that readily form flammable mixtures. Vapour accumulation could flash and/or explode if ignited.

Health Hazards: May cause central nervous system depression. High-pressure injection under skin may cause serious damage. Under conditions of poor personal hygiene and prolonged repeated contact, some polycyclic aromatic compounds (PACs) have been suspected as a cause of skin cancer in humans. May be irritating to the eyes, nose, throat, and lungs.

Environmental Hazards: No additional hazards. Material does not meet the criteria for PBT or vPvB in accordance with REACH Annex XIII.

2.4 Other information: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 3: Composition/information on ingredients

3.1 Substances:

Not Applicable. This material is regulated as a mixture.

3.2 Mixtures:

Name	CAS#	EC#	Registration#	Concentration*	GHS/CLP classification
Fuels, diesel	68334-30-5	269-822-7	01-2119484664-27	> 99 %	Acute Tox. 4 H332, Asp. Tox. 1 H304, Carc. 2 H351, Flam. Liq. 3 H226, STOT RE 2 H373, Skin Irrit. 2 H315, [Aquatic Acute 2 H401], Aquatic Chronic 2 H411, Note N

Note - any classification in brackets is a GHS building block that was not adopted by the EU in the CLP regulation (No 1272/2008) and therefore is not applicable in the EU or in non-EU countries which have implemented the CLP regulation and is shown for informational purposes only.

Name	CAS#	EC#	Registration#	Concentration*	DSD Symbols/Risk Phrases
Fuels, diesel	68334-30-5	269-822-7	01-2119484664-27	> 99 %	Xn; R20, Xi; R38, Xn; Carc. Cat. 3; R40, Xn; R65, N; R51/53, Note N

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SECTION 3: Composition/information on ingredients (Continued)

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Note: See (M) SDS Section 16 for full text of the R-Phrases. See (M) SDS Section 16 for full text of hazard statements.

SECTION 4: First aid measures

4.1 Description of first aid measures:

- Inhalation:** Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.
- **Skin Contact:** Remove contaminated clothing. Dry wipe exposed skin and cleanse with waterless hand cleaner and follow by washing thoroughly with soap and water. For those providing assistance, avoid further skin contact to yourself or others. Wear impervious gloves. Launder contaminated clothing separately before reuse. Discard contaminated articles that cannot be laundered. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.
- **Eye Contact:** Flush thoroughly with water. If irritation occurs, get medical assistance.
- **Ingestion:** Seek immediate medical attention. Do not induce vomiting.

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

Headache, dizziness, drowsiness, nausea and other CNS effects. Itching, pain, redness, swelling of skin. Local necrosis as evidenced by delayed onset of pain and tissue damage a few hours after injection.

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

If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately. Contains hydrocarbon solvent/petroleum hydrocarbons; skin contact may aggravate an existing dermatitis.

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SECTION 5: Firefighting measures

5.1 Extinguishing media:

Suitable extinguishing media:

Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

Unsuitable extinguishing media:

Straight streams of water

5.2 Special hazards arising from the substance or mixture:

Hazardous Combustion

Products:

Oxides of carbon, Aldehydes, Sulphur oxides, Smoke, Fume, Incomplete combustion products

5.3 Advice for firefighters:

Fire Fighting Instructions:

Evacuate area. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. Fire-fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Unusual Fire Hazards:

Hazardous material. Firefighters should consider protective equipment indicated in Section 8.

Flash Point [Method] :

>56°C (133°F) [ASTM D-93]

Upper/Lower Flammable Limits (Approximate volume % in air):

UEL: 7.0 LEL: 0.6 [test method unavailable]

Auto ignition Temperature:

>250°C (482°F) [test method unavailable]

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Notification Procedures:

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Protective Measures:

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required, due to toxicity or flammability of the material. See Section 5 for firefighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary,

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SECTION 6: Accidental release measures (Continued)

depending on the specific circumstances and/or the expert judgment of the emergency responders.

For emergency responders: Respiratory protection: half-face or full-face respirator with filter(s) for organic vapour and, when applicable, H₂S, or Self Contained Breathing Apparatus (SCBA) can be used depending on the size of spill and potential level of exposure. If the exposure cannot be completely characterized or an oxygen deficient atmosphere is possible or anticipated, SCBA is recommended. Work gloves that are resistant to aromatic hydrocarbons are recommended. Note: gloves made of polyvinyl acetate (PVA) are not water-resistant and are not suitable for emergency use. Chemical goggles are recommended if splashes or contact with eyes is possible. Small spills: normal antistatic work clothes are usually adequate. Large spills: full body suit of chemical resistant, antistatic material is recommended.

6.2 Environmental precautions:

Large Spills: Dyke far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up:

Land Spill: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Prevent entry into waterways, sewer, basements or confined areas. A vapour-suppressing foam may be used to reduce vapour. Use clean non-sparking tools to collect absorbed material. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Large Spills: Water spray may reduce vapour, but may not prevent ignition in enclosed spaces.

Water Spill: Stop leak if you can do so without risk. Eliminate sources of ignition. Warn other shipping. If the Flash Point exceeds the Ambient Temperature by 10 deg C or more, use containment booms and remove from the surface by skimming or with suitable absorbents when conditions permit. If the Flash Point does not exceed the Ambient Air Temperature by at least 10C, use booms as a barrier to protect shorelines and allow material to evaporate. Seek the advice of a specialist before using dispersants.

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SECTION 6: Accidental release measures (Continued)

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

6.4 Reference to other sections:

See Sections 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling:

Avoid all personal contact. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). Use proper bonding and/or ground procedures. However, bonding and grounds may not eliminate the hazard from static accumulation. Consult local applicable standards for guidance. Additional references include American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practice on Static Electricity) or CENELEC CLC/TR 50404 (Electrostatics - Code of practice for the avoidance of hazards due to static electricity).

Static Accumulator:

This material is a static accumulator. A liquid is typically considered a nonconductive, static accumulator if its conductivity is below 100 pS/m (100x10E-12 Siemens per meter) and is considered a semi conductive, static accumulator if its conductivity is below 10,000 pS/m. Whether a liquid is nonconductive or semi conductive, the precautions are the same. A number of factors, for example liquid temperature, presence of contaminants, anti-static additives and filtration can greatly influence the conductivity of a liquid.

7.2 Conditions for safe storage, including any incompatibilities:

The container choice, for example storage vessel, may effect static accumulation and dissipation. Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area. Storage containers should be earthed and bonded. Fixed storage containers, transfer containers and associated equipment should be earthed and bonded to prevent accumulation of static charge. Keep away from incompatible materials.

7.3 Specific end use(s):

Section 1 informs about identified end-uses. No industrial or sector specific guidance available.

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SECTION 8: Exposure controls/personal protection

8.1. CONTROL PARAMETERS

Exposure Limit Values:

Exposure limits/standards (Note: Exposure limits are not additive)

Substance Name	Form	Limit	Standard	Note	Source
Fuels, diesel	Stable Aerosol.	TWA	5 mg/m3		ExxonMobil
Fuels, diesel	Vapour.	TWA	200 mg/m3		ExxonMobil
Fuels, diesel [total hydrocarb, vapour & aerosol]	Inhalable fraction and vapour	TWA	100 mg/m3	Skin	ACGIH

Note: Information about recommended monitoring procedures can be obtained from the relevant agency (ies)/institute(s): UK Health and Safety Executive (HSE)

Derived no effect level (DNEL)/Derived minimal effect level (DMEL)

Worker

Substance Name	Dermal	Inhalation
Fuels, diesel	2.9 mg/kg bw/day DNEL, Chronic Exposure, Systemic Effects	68 mg/m3 DNEL, Chronic Exposure, Systemic Effects

Consumer

Substance Name	Dermal	Inhalation	Oral
Fuels, diesel	1.3 mg/kg bw/day DNEL, Chronic Exposure, Systemic Effects	20 mg/m3 DNEL, Chronic Exposure, Systemic Effects	NA

Note: The Derived No Effect Level (DNEL) is an estimated safe level of exposure that is derived from toxicity data in accord with specific guidance within the European REACH regulation. The DNEL may differ from an Occupational Exposure Limit (OEL) for the same chemical. OELs may be recommended by an individual company, a governmental regulatory body or an expert organization, such as the Scientific Committee for Occupational Exposure Limits (SCOEL) or the American Conference of Governmental Industrial Hygienists (ACGIH). OELs are considered to be safe exposure levels for a typical worker in an occupational setting for an 8-hour work shift, 40 hour work week, as a time weighted average (TWA) or a 15 minute short-term exposure limit (STEL). While also considered to be protective of health, OELs are derived by a process different from that of REACH.

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SECTION 8: Exposure controls/personal protection (Continued)

Predicted no effect concentration (PNEC)

Substance Name	Aqua (fresh water)	Aqua (marine water)	Aqua (intermittent release)	Sewage treatment plant	Sediment	Soil	Oral (secondary poisoning)
Fuels, diesel	NA	NA	NA	NA	NA	NA	NA

For hydrocarbon UVCBs, no single PNEC value is identified for the overall substance or used in risk assessment calculations. Therefore, no PNEC values are disclosed in the above table. For further information, please contact ExxonMobil.

8.2 Exposure controls:

Engineering Controls:

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

Use explosion-proof ventilation equipment to stay below exposure limits.

Personal Protection:

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection:

If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

Half-face filter respirator Type AP filter material, European Committee for Standardization (CEN) standards EN 136, 140 and 405 provide respirator masks and EN 149 and 143 provide filter recommendations.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapour warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection:

Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

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SECTION 8: Exposure controls/personal protection (Continued)

Chemical resistant gloves are recommended. If contact with forearms is likely wear gauntlet style gloves. Nitrile, minimum 0.38 mm thickness or comparable protective barrier material with a high performance level for continuous contact use conditions, permeation breakthrough minimum 480 minutes in accordance with CEN standards EN 420 and EN 374.

Eye Protection: If contact with material is likely, chemical goggles are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

Chemical/oil resistant clothing is recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

For Summary of Risk Management Measures across all identified uses, see Annex.

Environmental controls: Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Appearance: Light coloured liquid

Odour: Petroleum/Solvent

Odour threshold: No data available

pH: Not technically feasible

Melting point / freezing point: No data available

Initial boiling point and boiling range: > 180°C (356°F) [test method unavailable]

Flash point: >56°C (133°F) [ASTM D-93]

Evaporation rate: No data available

Flammability (solid gas): Not technically feasible

Upper / lower flammability

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or explosive limits: (Approximate volume % in air): UEL: 7.0 LEL: 0.6 [test method unavailable]

SECTION 9: Physical and chemical properties (Continued)

Vapour pressure: < 0.04 kPa (0.3 mm Hg) at 20 °C [test method unavailable]
Vapour density: No data available
Relative density: (at 15 °C) 0.82 - 0.845 [EN ISO 3675]
Solubility (ies): Negligible
Partition coefficient: > 3.5 [test method unavailable]
Auto-ignition temperature: >250°C (482°F) [test method unavailable]
Decomposition temperature: No data available
Viscosity: 2 cSt (2 mm²/sec) at 40°C - 4 cSt (4 mm²/sec) at 40°C [test method unavailable]

Explosive properties: None

Oxidising properties: None

9.2 Other information:

Density (at 15 °C): 820 kg/m³ (6.84 lbs/gal, 0.82 kg/dm³) - 845 kg/m³ (7.05 lbs/gal, 0.84 kg/dm³) [EN ISO 3675]

SECTION 10: Stability and reactivity

10.1 Reactivity: See sub-sections below.

10.2 Chemical stability: Material is stable under normal conditions.

10.3 Possibility of hazardous reactions: Hazardous polymerization will not occur.

10.4 Conditions to avoid: Open flames and high energy ignition sources.

10.5 Incompatible materials: Halogens, Strong Acids, Strong Bases, Strong oxidisers

10.6 Hazardous decomposition products: Material does not decompose at ambient temperatures.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Hazard Class	Conclusion / Remarks
Inhalation	
Acute Toxicity: (Rat) 4 hour(s) LC50 > 4000 mg/m ³ (Vapour and aerosol)	Moderately toxic. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 403
Irritation: No end point data for material.	Elevated temperatures or mechanical action may form vapours, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.
Ingestion	
Acute Toxicity (Rat): LD50 > 5000 mg/kg Test scores or other study results do not meet criteria for classification.	Minimally Toxic. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 401
Skin	
Acute Toxicity (Rabbit): LD50 > 5000 mg/kg Test scores or other study results do not meet criteria for classification.	Minimally Toxic. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 434
Skin Corrosion/Irritation (Rabbit): Data available. Test scores or other study results meet criteria for classification.	Irritating to the skin. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 404
Eye	
Serious Eye Damage/Irritation (Rabbit): Data available. Test scores or other study results do not meet criteria for classification.	May cause mild, short-lasting discomfort to eyes. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 405
Sensitisation	
Respiratory Sensitization: No end point data for material.	Not expected to be a respiratory sensitizer.
Skin Sensitization: Data available. Test scores or other study results do not meet criteria for classification.	Not expected to be a skin sensitizer. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 406
Aspiration: Data available.	May be fatal if swallowed and enters airways. Based on physico-chemical properties of the material.
Germ Cell Mutagenicity: Data available. Test scores or other study results do not meet criteria for classification.	Not expected to be a germ cell mutagen. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 471 475
Carcinogenicity: Data available.	Caused cancer in laboratory animals, but the relevance to humans is uncertain. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 451
Reproductive Toxicity: No end point data for material.	Not expected to be a reproductive toxicant.
Lactation: No end point data for material.	Not expected to cause harm to breast-fed children.
Specific Target Organ Toxicity (STOT)	
Single Exposure: No end point data for material.	Not expected to cause organ damage from a single exposure.
Repeated Exposure: Data available.	Concentrated, prolonged or deliberate exposure may cause organ damage. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 410 413

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Other Information:

Vapour concentrations above recommended exposure levels are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, are anaesthetic and may have other central nervous system effects. Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema.

Diesel fuel: Carcinogenic in animal tests. Caused mutations in-vitro. Repeated dermal exposures to high concentrations in test animals resulted in reduced litter size and litter weight, and increased fetal resorptions at maternally toxic doses. Dermal exposure to high concentrations resulted in severe skin irritation with weight loss and some mortality. Inhalation exposure to high concentrations resulted in respiratory tract irritation, lung changes/infiltration/accumulation, and reduction in lung function. Diesel exhaust fumes: Carcinogenic in animal tests. Inhalation exposures to exhaust for 2 years in test animals resulted in lung tumours and lymphoma. Extract of particulate produced skin tumours in test animals. Caused mutations in-vitro.

SECTION 12: Ecological information

12.1. Toxicity:

Material - Expected to be toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

12.2. Persistence and degradability:

Biodegradation:

Material - Expected to be inherently biodegradable

Atmospheric Oxidation:

Majority of components - Expected to degrade rapidly in air

12.3. Bioaccumulative potential:

Majority of components - Has the potential to bioaccumulate, however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.

12.4. Mobility in soil:

More volatile component - Highly volatile, will partition rapidly to air. Not expected to partition to sediment and wastewater solids.

Less volatile component - Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

Majority of components - Low potential to migrate through soil.

12.5. Results of PBT and vPvB assessment:

This product is not, or does not contain, a substance that is a PBT or a vPvB.

12.6. Other adverse effects:

No adverse effects are expected.

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SECTION 12: Ecological information (Continued)

ECOLOGICAL DATA

Eco toxicity

Test	Duration	Organism Type	Test Results
Aquatic - Acute Toxicity	96 hour(s)	Fish	LL50 1 - 100 mg/l: data for similar materials
Aquatic - Acute Toxicity	48 hour(s)	Daphnia magna	EL50 1 - 1000 mg/l: data for similar materials
Aquatic - Acute Toxicity	72 hour(s)	Pseudokirchneriella subcapitata	EL50 1 - 100 mg/l: data for similar materials
Aquatic - Chronic Toxicity	72 hour(s)	Pseudokirchneriella subcapitata	NOELR 1 - 10 mg/l: data for similar materials

Persistence, Degradability and Bioaccumulation Potential

Media	Test Type	Duration	Test Results: Basis
Water	Ready Biodegradability	28 day(s)	Percent Degraded < 60 : similar material

SECTION 13: Disposal considerations

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

13.1. Waste treatment methods

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

Regulatory disposal information:

European Waste Code: 13 07 01*

Note: These codes are assigned based upon the most common uses for this material and may not reflect contaminants resulting from actual use. Waste producers need to assess the actual process used when generating the waste and its contaminants in order to assign the proper waste disposal code(s).

This material is considered as hazardous waste pursuant to Directive 91/689/EEC on hazardous waste, and subject to the provisions of that Directive unless Article 1(5) of that Directive applies.

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SECTION 13: Disposal considerations

Empty Container Warning: Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. **DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.**

SECTION 14: Transport information

14.1. UN number:

1202

14.2. UN proper shipping name:

DIESEL FUEL, GAS OIL OR HEATING OIL, LIGHT

14.3. Transport hazard class (es):

3

14.4. Packing group:

III

14.5. Environmental hazards:

Land (ADR/RID):	Yes
Inland Waterway (ADNR/ADN):	Yes
Sea (IMDG):	Marine Pollutant
Air (IATA):	Yes

14.6. Special precautions for user:

Land (ADR/RID):	
Proper Shipping Name	
Suffix:	Special Provision 640L
Classification Code:	F1
Label(s) / Mark(s):	3, EHS
Hazard ID Number:	30
Hazchem EAC:	3Y

Inland Waterway (ADNR/ADN):	
Hazard ID Number:	30

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Label(s) / Mark(s): 3 (N2, F), EHS

SECTION 14: Transport information (Continued)

Sea (IMDG):

Label(s): 3
 EMS Number: F-E, S-E
 Transport Document Name: UN1202, DIESEL FUEL, GAS OIL OR HEATING OIL, LIGHT, 3, PG III, (56°C c.c.), MARINE POLLUTANT

Air (IATA):

Label(s) / Mark(s): 3
 Transport Document Name: UN1202, DIESEL FUEL, GAS OIL OR HEATING OIL, LIGHT, 3, PG III

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not classified according to Annex II

SECTION 15: Regulatory information

REGULATORY STATUS AND APPLICABLE LAWS AND REGULATIONS

Listed or exempt from listing/notification on the following chemical inventories:

AICS, DSL, IECSC, KECI, PICCS, TSCA

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

Applicable EU Directives and Regulations:

- 1907/2006 [... on the Registration, Evaluation, Authorisation and Restriction of Chemicals ... and amendments thereto]
- 92/85/EEC [...pregnant workers...recently given birth or...breastfeeding directive]
- 94/33/EC [...on the protection of young people at work]
- 96/82/EC as extended by 2003/105/EC [... on the control of major-accident hazards involving dangerous substances]. Product contains a substance that falls within the criteria defined in Annex I. Refer to Directive for details of requirements taking into account the volume of product stored on site.
- 98/24/EC [... on the protection of workers from the risk related to chemical agents at work ...]. Refer to Directive for details of requirements.
- 1272/2008 [on classification, labelling and packaging of substances and mixtures. and amendments thereto]

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SECTION 15: Regulatory information (Continued)

Refer to the relevant EU/national regulation for details of any actions or restrictions required by the above Regulation(s)/Directive(s).

15.2. Chemical safety assessment

REACH Information: A Chemical Safety Assessment has been carried out for one or more substances present in the material.

SECTION 16: Other information

IDENTIFIED USES:

Distribution of substance: (PROC1, PROC15, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, SU3, SU8, SU9)

Use as an intermediate: (PROC1, PROC15, PROC2, PROC3, PROC4, PROC8a, PROC8b, SU3, SU8, SU9)

Formulation and (re)packing of substances and mixtures: (PROC1, PROC14, PROC15, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9, SU10, SU3)

Use in Coatings – Industrial: (PROC1, PROC10, PROC13, PROC15, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, SU3)

Use in oil field drilling and production operations - Industrial: (PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, SU3)

Lubricants – Industrial: (PROC1, PROC10, PROC13, PROC17, PROC18, PROC2, PROC3, PROC4, PROC7, PROC8a, PROC8b, PROC9, SU3)

Metal working fluids / rolling oils – Industrial: (PROC1, PROC10, PROC13, PROC17, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, PROC9, SU3)

Use as binders and release agents – Industrial: (PROC1, PROC10, PROC13, PROC14, PROC2, PROC3, PROC4, PROC6, PROC7, PROC8a, PROC8b, SU3)

Use as a fuel - Industrial (PROC1, PROC16, PROC2, PROC3, PROC8a, PROC8b, SU3)

Functional Fluids – Industrial: (PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, SU3)

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Rubber production and Processing: (PROC1, PROC13, PROC14, PROC15, PROC2, PROC21, PROC3, PROC4, PROC5, PROC6, PROC7, PROC8a, PROC8b, PROC9, SU10)

Use in Coatings – Professional: (PROC1, PROC10, PROC11, PROC13, PROC15, PROC19, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, SU22)

Use in oil field drilling and production operations - Professional: (PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, SU22)

Lubricants – Professional: (Low Release) (PROC1, PROC10, PROC11, PROC13, PROC17, PROC18, PROC2, PROC20, PROC3, PROC4, PROC8a, PROC8b, PROC9, SU22)

Lubricants – Professional: (High Release) (PROC1, PROC10, PROC11, PROC13, PROC17, PROC18, PROC2, PROC20, PROC3, PROC4, PROC8a, PROC8b, PROC9, SU22)

Use as binders and release agents – Professional: (PROC1, PROC10, PROC11, PROC14, PROC2, PROC3, PROC4, PROC6, PROC8a, PROC8b, SU22)

Use as a fuel - Professional Road and construction Applications: (PROC1, PROC16, PROC2, PROC3, PROC8a, PROC8b, SU22)
(PROC1, PROC10, PROC11, PROC13, PROC2, PROC8a, PROC8b, PROC9, SU22)

Explosives manufacture & use: (PROC1, PROC3, PROC5, PROC8a, PROC8b, SU22)

Use as a fuel - Consumer: (PC13, SU21)

REFERENCES: Sources of information used in preparing this SDS included one or more of the following: results from in house or supplier toxicology studies, CONCAWE Product Dossiers, publications from other trade associations, such as the EU Hydrocarbon Solvents REACH Consortium, U.S. HPV Program Robust Summaries, the EU IUCLID Data Base, U.S. NTP publications, and other sources, as appropriate.

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SECTION 16: Other information (Continued)

List of abbreviations and acronyms that could be (but not necessarily are) used in this safety data sheet:

Acronym	Full text
N/A	Not applicable
N/D	Not determined
NE	Not established
VOC	Volatile Organic Compound
AICS	Australian Inventory of Chemical Substances
AIHA WEEL	American Industrial Hygiene Association Workplace Environmental Exposure Limits
ASTM	ASTM International, originally known as the American Society for Testing and Materials (ASTM)
DSL	Domestic Substance List (Canada)
EINECS	European Inventory of Existing Commercial Substances
ELINCS	European List of Notified Chemical Substances
ENCS	Existing and new Chemical Substances (Japanese inventory)
IECSC	Inventory of Existing Chemical Substances in China
KECI	Korean Existing Chemicals Inventory
NDSL	Non-Domestic Substances List (Canada)
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances
TLV	Threshold Limit Value (American Conference of Governmental Industrial Hygienists)
TSCA	Toxic Substances Control Act (U.S. inventory)
UVCB	Substances of Unknown or Variable composition, Complex reaction products or Biological materials
LC	Lethal Concentration
LD	Lethal Dose
LL	Lethal Loading
EC	Effective Concentration
EL	Effective Loading
NOEC	No Observable Effect Concentration
NOELR	No Observable Effect Loading Rate

Classification according to Regulation (EC) No 1272/2009

Classification procedure

Aquatic Chronic 2; H411

Calculation

Carc. 2; H351

Bridging, structurally similar materials

Flam. Liq. 3; H226

Based on test data

STOT RE 2; H373

Bridging, structurally similar materials

Skin Irrit. 2; H315

Bridging, structurally similar materials

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KEY TO THE RISK CODES CONTAINED IN SECTION 2 AND 3 OF THIS DOCUMENT
(for information only):

R20; Harmful by inhalation.
R21; Harmful in contact with skin.
R22; Harmful if swallowed.
R38; Irritating to skin.
R40; Limited evidence of a carcinogenic effect.
R44; Risk of explosion if heated under confinement.
R51/53; Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65; Harmful: may cause lung damage if swallowed.
R66; Repeated exposure may cause skin dryness or cracking.

KEY TO THE H-CODES CONTAINED IN SECTION 3 OF THIS DOCUMENT
(for information only):

Flam. Liq. 3 H226: Flammable liquid and vapor; Flammable Liquid, Cat 3
Asp. Tox. 1 H304: May be fatal if swallowed and enters airways; Aspiration, Cat 1
Skin Irrit. 2 H315: Causes skin irritation; Skin Corr/Irritation, Cat 2
Acute Tox. 4 H332: Harmful if inhaled; Acute Tox Inh, Cat 4
Carc. 2 H351: Suspected of causing cancer; GHS Carcinogenicity, Cat 2
STOT RE 2 H373: May cause damage to organs through prolonged or repeated exposure; Target Organ, Repeated, Cat 2

Aquatic Acute 2 H401: Toxic to aquatic life; Acute Env Tox, Cat 2
Aquatic Chronic 2 H411: Toxic to aquatic life with long lasting effects; Chronic Env Tox, Cat 2