# SAFETY DATA SHEET

## Section 1. Identification

<table>
<thead>
<tr>
<th>Product name</th>
<th>Diesel Fuel No. 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical name</td>
<td>Fuels, diesel</td>
</tr>
<tr>
<td>SDS #</td>
<td>11155</td>
</tr>
<tr>
<td>Code</td>
<td>11155</td>
</tr>
</tbody>
</table>

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

**Product use**

Fuel.

**Supplier**

BP Products North America Inc.
150 West Warrenville Road
Naperville, Illinois 60563-8460
USA

**EMERGENCY HEALTH INFORMATION:**

1 (800) 447-8735

Outside the US: +1 703-527-3887 (CHEMTREC)

**EMERGENCY SPILL INFORMATION:**

1 (800) 424-9300 CHEMTREC (USA)

**OTHER PRODUCT INFORMATION**

1 (866) 4 BP - MSDS
(866-427-6737 Toll Free - North America)

email: bpcares@bp.com

## Section 2. Hazards identification

**OSHA/HCS status**

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture**

- FLAMMABLE LIQUIDS - Category 4
- ACUTE TOXICITY (inhalation) - Category 4
- SKIN IRRITATION - Category 2
- CARCINOGENICITY - Category 2
- ASPIRATION HAZARD - Category 1

**GHS label elements**

**Hazard pictograms**

![Pictograms](image)

**Signal word**

Danger

**Hazard statements**

- Combustible liquid.
- Harmful if inhaled.
- Causes skin irritation.
- Suspected of causing cancer.
- May be fatal if swallowed and enters airways.

**Precautionary statements**

**Prevention**

Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
Do not breathe vapor.
Wear protective gloves and eye protection.
Avoid release to the environment.
Section 2. Hazards identification

Response
- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. 
- IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs, seek medical advice/attention.

Storage
Store locked up. Store in a well-ventilated place. Keep cool.

Disposal
Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazard not otherwise classified
This material may contain significant quantities of polycyclic aromatic hydrocarbons (PAHs), some of which have been shown by experimental studies to induce skin cancer. Note: High Pressure Applications. Injections through the skin resulting from contact with the product at high pressure may constitute a major medical emergency. See ‘Notes to physician’ under First-Aid Measures, Section 4 of this Safety Data Sheet.

Section 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ingredient name</strong></td>
<td><strong>CAS number</strong></td>
</tr>
<tr>
<td>Petroleum distillates (Diesel Fuel No. 2)</td>
<td>68476-34-6</td>
</tr>
<tr>
<td>Contains one or more of the following biodiesels: soybean oil, me ester</td>
<td>Varies</td>
</tr>
<tr>
<td>Fatty acids, sunflower-oil, Me esters</td>
<td>68919-54-0</td>
</tr>
<tr>
<td>Fatty acids methyl esters</td>
<td>67762-39-3</td>
</tr>
<tr>
<td>Fatty acids, vegetable-oil, Methyl esters</td>
<td>68990-52-3</td>
</tr>
<tr>
<td>rape oil, me ester</td>
<td>73891-99-3</td>
</tr>
<tr>
<td>Fatty acids, canola-oil, Me esters</td>
<td>129828-16-6</td>
</tr>
<tr>
<td>fatty acids, tallow, me esters</td>
<td>61788-61-2</td>
</tr>
<tr>
<td>Contains: Naphthalene</td>
<td>91-20-3</td>
</tr>
</tbody>
</table>

May also contain small quantities of proprietary performance additives.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

**Eye contact**
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention.

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

**Inhalation**
If inhaled, remove to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention.

**Ingestion**
Do not induce vomiting. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Aspiration hazard if swallowed. Can enter lungs and cause damage. Get medical attention immediately.

**Protection of first-aiders**
No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Most important symptoms/effects, acute and delayed

See Section 11 for more detailed information on health effects and symptoms.
Section 4. First aid measures

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician
Treatment should in general be symptomatic and directed to relieving any effects. Product can be aspirated on swallowing or following regurgitation of stomach contents, and can cause severe and potentially fatal chemical pneumonitis, which will require urgent treatment. Because of the risk of aspiration, induction of vomiting and gastric lavage should be avoided. Gastric lavage should be undertaken only after endotracheal intubation. Monitor for cardiac dysrythmias.

Specific treatments
No specific treatment.

Section 5. Fire-fighting measures

Extinguishing media
In case of fire, use foam, dry chemical or carbon dioxide extinguisher or spray.

Suitable extinguishing media

Specific hazards arising from the chemical
Flammable liquid and vapor. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Unsuitable extinguishing media
Do not use water jet.

Hazardous combustion products
Combustion products may include the following:
carbon oxides (CO, CO₂) (carbon monoxide, carbon dioxide) other hazardous substances.

Special protective actions for fire-fighters
Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters
Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
Immediately contact emergency personnel. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling. Eliminate all ignition sources.

For emergency responders
Entry into a confined space or poorly ventilated area contaminated with vapor, mist or fume is extremely hazardous without the correct respiratory protective equipment and a safe system of work. Wear self-contained breathing apparatus. Wear a suitable chemical protective suit. Chemical resistant boots. See also the information in "For non-emergency personnel".

Environmental precautions
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Collect spillage.

Methods and materials for containment and cleaning up

Small spill
Eliminate all ignition sources. Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. The method and equipment used must be in conformance with appropriate regulations and industry practice on explosive atmospheres.
Section 6. Accidental release measures

Large spill
Eliminate all ignition sources. Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Dike spill area and do not allow product to reach sewage system and surface or ground water. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Use spark-proof tools and explosion-proof equipment. Contaminated absorbent material may pose the same hazard as the spilled product. The method and equipment used must be in conformance with appropriate regulations and industry practice on explosive atmospheres. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

Precautions for safe handling
Protective measures
Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Empty containers retain product residue and can be hazardous. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Do not reuse container. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not swallow. Aspiration hazard if swallowed. Can enter lungs and cause damage. Never siphon by mouth.

Advice on general occupational hygiene
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities
Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Store and use only in equipment/containers designed for use with this product. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Light hydrocarbon vapors can build up in the headspace of tanks. These can cause flammability/explosion hazards even at temperatures below the normal flash point (note: flash point must not be regarded as a reliable indicator of the potential flammability of vapor in tank headspaces). Tank headspaces should always be regarded as potentially flammable and care should be taken to avoid static electrical discharge and all ignition sources during filling, ullaging and sampling from storage tanks. Do not enter storage tanks. If entry to vessels is necessary, follow permit to work procedures. Entry to any tanks or other confined space requires a full risk assessment and appropriate control measures to be put in place in conformance with appropriate regulations and industry practice on confined space entry. When the product is pumped (e.g. during filling, discharge or ullaging) and when sampling, there is a risk of static discharge. Ensure equipment used is properly earthed or bonded to the tank structure. Electrical equipment should not be used unless it is intrinsically safe (i.e. will not produce sparks). Explosive air/vapor mixtures may form at ambient temperature. If product comes into contact with hot surfaces, or leaks occur from pressurized fuel pipes, the vapor or mists generated will create a flammability or explosion hazard. Product contaminated rags, paper or material used to absorb spillages, represent a fire hazard, and should not be allowed to accumulate. Dispose of safely immediately after use.
# Section 8. Exposure controls/personal protection

## Control parameters

### Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>fuel, diesel no. 2</td>
<td>ACGIH TLV (United States). Absorbed through skin. TWA: 100 mg/m³. (measured as total hydrocarbons) 8 hours. Issued/Revised: 1/2007 Form: Inhalable fraction and vapor</td>
</tr>
<tr>
<td>naphthalene</td>
<td>ACGIH TLV (United States). Absorbed through skin. TWA: 52 mg/m³ 8 hours. Issued/Revised: 5/1996</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States). TWA: 50 mg/m³ 8 hours. Issued/Revised: 6/1993</td>
</tr>
<tr>
<td></td>
<td>TWA: 10 ppm 8 hours. Issued/Revised: 6/1993</td>
</tr>
</tbody>
</table>

While specific OELs for certain components may be shown in this section, other components may be present in any mist, vapor or dust produced. Therefore, the specific OELs may not be applicable to the product as a whole and are provided for guidance only.

## Appropriate engineering controls

All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained. Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards.

Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits. The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.

## Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## Individual protection measures

### Hygiene measures

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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

### Eye/face protection

Recommended: Chemical splash goggles.

### Skin protection

Wear chemical resistant gloves. Nitrile gloves.

### Hand protection

Do not re-use gloves. Protective gloves must give suitable protection against mechanical risks (i.e. abrasion, blade cut and puncture). Protective gloves will deteriorate over time due to physical and chemical damage. Inspect and replace gloves on a regular basis. The frequency of replacement will depend upon the circumstances of use.

Consult your supervisor or Standard Operating Procedure (S.O.P) for special handling instructions.
Section 8. Exposure controls/personal protection

Body protection
Use of protective clothing is good industrial practice. Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g., when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required. Wear suitable protective clothing. Footwear highly resistant to chemicals. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For greatest effectiveness against static electricity, overalls, boots and gloves should all be anti-static. When there is a risk of ignition wear inherently fire resistant protective clothes and gloves. Work clothing / overalls should be laundered on a regular basis. Laundering of contaminated work clothing should only be done by professional cleaners who have been told about the hazards of the contamination. Always keep contaminated work clothing away from uncontaminated work clothing and uncontaminated personal clothes. When the risk of skin exposure is high (from experience this could apply to the following tasks: cleaning work, maintenance and service, filling and transfer, taking samples and cleaning up spillages) then a chemical protective suit and boots will be required. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: overall.

Other skin protection
Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: nitrile rubber.

Respiratory protection
Use only with adequate ventilation. If ventilation is inadequate, use a NIOSH certified respirator with an organic vapor cartridge and P95 particulate filter.

If operating conditions cause high vapor concentrations or the TLV is exceeded, use NIOSH-certified, supplied-air respirator.

Use with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.
If there is a requirement for the use of a respiratory protective device, but the use of breathing apparatus (independent of ambient atmosphere) is not required, then a suitable filtering device must be worn.
The filter class must be suitable for the maximum contaminant concentration (gas/vapor/ aerosol/particulates) that may arise when handling the product.
The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

Section 9. Physical and chemical properties

Appearance
Physical state Liquid.
Color Colorless. to Various Color. (May be dyed Red., Light Green., Yellow.)
Odor Petroleum
Odor threshold Not available.
pH Not available.
Melting point Not available.
Boiling point Not available.
Flash point Closed cup: ≥52°C (≥125.6°F) [Pensky-Martens.]
Evaporation rate Not available.
Flammability (solid, gas) Not applicable. Based on - Physical state
Lower and upper explosive (flammable) limits Lower: 0.6%
Upper: 7.5%
Vapor pressure Not available.
Vapor density Not available.
Density 820 to 875 kg/m³ (0.82 to 0.875 g/cm³)
Relative density <1 [Water = 1]

Product name Diesel Fuel No. 2
Version 1 Date of issue 01/06/2015.
Product code 11155 Format US
Page: 6/15 Language ENGLISH
Section 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solubility</td>
<td>negligible &lt;0.1%</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>257°C (494°F)</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Kinematic: 1.7 to 4.1 mm²/s (1.7 to 4.1 cSt) at 40°C</td>
</tr>
</tbody>
</table>

Section 10. Stability and reactivity

Reactivity
No specific test data available for this product. Refer to Conditions to avoid and incompatible materials for additional information.

Chemical stability
The product is stable.

Possibility of hazardous reactions
Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerization will not occur.

Conditions to avoid
Avoid all possible sources of ignition (spark or flame).

Incompatible materials
Reactive or incompatible with the following materials: oxidizing materials, acids and alkalis, halogenated compounds.

Hazardous decomposition products
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Species</th>
<th>Result</th>
<th>Exposure</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>diesel no. 2</td>
<td>LC50 Inhalation Duds and mists</td>
<td>Rat</td>
<td>4.1 mg/l</td>
<td>4 hours</td>
<td>Based on Diesel fuel</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;4300 mg/kg</td>
<td>-</td>
<td>Based on No. 2 Heating Oil.</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;4300 mg/kg</td>
<td>-</td>
<td>Based on Diesel fuel</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>17900 mg/kg</td>
<td>-</td>
<td>Based on No. 2 Heating Oil.</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>7600 mg/kg</td>
<td>-</td>
<td>Based on Diesel fuel</td>
</tr>
<tr>
<td>naphthalene</td>
<td>LC50 Inhalation Duds and mists</td>
<td>Rat</td>
<td>&gt;340 mg/m³</td>
<td>1 hours</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>20 g/kg</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>490 mg/kg</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Conclusion/Summary
Not available.

Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Species</th>
<th>Result</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation Conc.</th>
<th>Remarks</th>
</tr>
</thead>
</table>

Product name: Diesel Fuel No. 2
Product code: 11155
Page: 7/15
Version 1
Date of issue: 01/06/2015.
Format: US
Language: ENGLISH (ENGLISH)
### Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Route of exposure</th>
<th>Species</th>
<th>Result</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>fuel, diesel no. 2</td>
<td>skin</td>
<td>Guinea pig</td>
<td>Not sensitizing</td>
<td>Based on No. 2 Heating Oil.</td>
</tr>
<tr>
<td></td>
<td>skin</td>
<td>Guinea pig</td>
<td>Not sensitizing</td>
<td>Based on Diesel fuel</td>
</tr>
</tbody>
</table>

#### Sensitizer

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Route of exposure</th>
<th>Species</th>
<th>Result</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>fuel, diesel no. 2</td>
<td>skin</td>
<td>Guinea pig</td>
<td>Not sensitizing</td>
<td>Based on No. 2 Heating Oil.</td>
</tr>
<tr>
<td></td>
<td>skin</td>
<td>Guinea pig</td>
<td>Not sensitizing</td>
<td>Based on Diesel fuel</td>
</tr>
</tbody>
</table>

#### Mutagenicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Experiment</th>
<th>Result</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>fuel, diesel no. 2</td>
<td>Equivalent to OECD 476</td>
<td>Experiment: In vitro</td>
<td>Positive</td>
<td>Based on Hydrodesulfurized gas oil</td>
</tr>
<tr>
<td></td>
<td>OECD 471</td>
<td>Experiment: In vitro</td>
<td>Positive</td>
<td>Based on Diesel fuel</td>
</tr>
<tr>
<td></td>
<td>Equivalent to OECD 471</td>
<td>Experiment: In vitro</td>
<td>Positive</td>
<td>Based on Cracked gas oil</td>
</tr>
<tr>
<td></td>
<td>Equivalent to OECD 476</td>
<td>Experiment: In vitro</td>
<td>Negative</td>
<td>Based on Heating Oil.</td>
</tr>
<tr>
<td></td>
<td>not guideline 475</td>
<td>Experiment: In vivo</td>
<td>Negative</td>
<td>Based on Heating Oil.</td>
</tr>
<tr>
<td></td>
<td>Equivalent to OECD 475</td>
<td>Experiment: In vivo</td>
<td>Negative</td>
<td>Based on Gas oil</td>
</tr>
</tbody>
</table>

#### Conclusion/Summary

Not available.

#### Carcinogenicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Species</th>
<th>Route</th>
<th>Result</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>fuel, diesel no. 2</td>
<td>Equivalent to OECD 451</td>
<td>Mouse</td>
<td>Dermal</td>
<td>Positive - Dermal - Unspecified</td>
<td>Based on Heating Oil.</td>
</tr>
<tr>
<td></td>
<td>not guideline</td>
<td>Mouse</td>
<td>Dermal</td>
<td>Positive - Dermal - Unspecified</td>
<td>Limited relevance to man. (Based on Gas oil)</td>
</tr>
</tbody>
</table>

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**Product name**: Diesel Fuel No. 2  
**Product code**: 11155  
**Version**: 1  
**Date of issue**: 01/06/2015.
Section 11. Toxicological information

Conclusion/Summary
Suspected of causing cancer.

<table>
<thead>
<tr>
<th>Classification</th>
<th>OSHA</th>
<th>IARC</th>
<th>NTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product/ingredient name</td>
<td>OSHA</td>
<td>IARC</td>
<td>NTP</td>
</tr>
<tr>
<td>naphthalene</td>
<td>-</td>
<td>2B</td>
<td>Reasonably anticipated to be a human carcinogen.</td>
</tr>
</tbody>
</table>

OSHA:
+ - Potential occupational carcinogen

IARC:
1 - Carcinogenic to human.
2A - Probable human carcinogen.
2B - Possible carcinogen to human.
3 - Not classifiable as a human carcinogen.
4 - Probably not a human carcinogen.

NTP:
Proven - Known to be human carcinogens.
Possible - Reasonably anticipated to be human carcinogens.

Reproductive toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Maternal toxicity</th>
<th>Fertility</th>
<th>Development toxin</th>
<th>Species</th>
<th>Result</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>fuel, diesel no. 2</td>
<td>-</td>
<td>-</td>
<td>Negative</td>
<td>Rat</td>
<td>Dermal</td>
<td>20 days</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>-</td>
<td>Negative</td>
<td>Rat</td>
<td>Dermal</td>
<td>10 days</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>-</td>
<td>Negative</td>
<td>Rat</td>
<td>Dermal</td>
<td>10 days</td>
</tr>
</tbody>
</table>

Conclusion/Summary
Development: Not classified. Based on available data, the classification criteria are not met.
Fertility: Not classified. Based on available data, the classification criteria are not met.
Effects on or via lactation: Not classified. Based on available data, the classification criteria are not met.

Aspiration hazard

<table>
<thead>
<tr>
<th>Name</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>fuel, diesel no. 2</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
</tbody>
</table>

Information on the likely routes of exposure
Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

| Eye contact | No known significant effects or critical hazards. |
| Skin contact | Causes skin irritation. |
| Inhalation | Harmful if inhaled. |
| Ingestion | Irritating to mouth, throat and stomach. Aspiration hazard if swallowed -- harmful or fatal if liquid is aspirated into lungs. |

Symptoms related to the physical, chemical and toxicological characteristics

| Eye contact | Adverse symptoms may include the following: pain or irritation, watering, redness |
| Skin contact | Adverse symptoms may include the following: irritation, redness |
| Inhalation | Adverse symptoms may include the following: nausea or vomiting, headache, drowsiness/fatigue, dizziness/vertigo, unconsciousness |

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### Section 11. Toxicological information

**Ingestion**
Adverse symptoms may include the following:
- Nausea or vomiting

**Delayed and immediate effects and also chronic effects from short and long term exposure**

#### Short term exposure

**Potential immediate effects**
May be harmful by inhalation if exposure to vapor, mists or fumes resulting from thermal decomposition products occurs. Vapor, mist or fume may irritate the nose, mouth and respiratory tract.

**Potential delayed effects**
Not available.

#### Long term exposure

**Potential immediate effects**
Not available.

**Potential delayed effects**
Not available.

**Potential chronic health effects**

**General**
May be harmful by inhalation if exposure to vapor, mists or fumes resulting from thermal decomposition products occurs. Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis.

**Carcinogenicity**
Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

**Mutagenicity**
No known significant effects or critical hazards.

**Teratogenicity**
No known significant effects or critical hazards.

**Developmental effects**
No known significant effects or critical hazards.

**Fertility effects**
No known significant effects or critical hazards.

**Numerical measures of toxicity**

**Acute toxicity estimates**
Not available.

**Other information**
Aspiration of this product into the lungs can cause chemical pneumonia and can be fatal. Aspiration into the lungs can occur while vomiting after ingestion of this product. Do not siphon by mouth.

**Additional information**

**Middle distillate:** From skin-painting studies of petroleum distillates of similar composition and distillate range, it has been shown that these types of materials often possess weak carcinogenic activity in laboratory animals. In these tests, the material is painted on the shaved backs of mice twice a week for their lifetime. The material is not washed off between applications. Therefore, there may be a potential risk of skin cancer from prolonged or repeated skin contact with this product in the absence of good personal hygiene. This particular product has not been tested for carcinogenic activity, but we have chosen to be cautious in light of the findings with other distillate streams.

Occasional skin contact with this product is not expected to have serious effects, but good personal hygiene should be practiced and repeated skin contact avoided. This product can also be expected to produce skin irritation upon prolonged or repeated skin contact. Personal hygiene measures taken to prevent skin irritation are expected to be adequate to prevent risk of skin cancer.

Diesel exhaust particulates have been classified by the National Toxicological Program (NTP) to be a reasonably anticipated human carcinogen. Exposure should be minimized to reduce potential risk.

Naphthalene has been reported to cause developmental toxicity in mice after oral exposure to relatively high dose levels, but developmental toxicity was not observed in NTP (National Toxicology Program) sponsored studies in rats and rabbits. Ingestion or inhalation of naphthalene can result in hemolysis and other blood abnormalities, and individuals (and infants) deficient in glucose-6-phosphate dehydrogenase may be especially susceptible to these effects. Inhalation of naphthalene may cause headache and nausea. Airborne exposure can result in eye irritation. Naphthalene exposure has been associated with cataracts in animals and humans.
## Section 12. Ecological information

**Toxicity**

No testing has been performed by the manufacturer.

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Species</th>
<th>Test/Result</th>
<th>Exposure</th>
<th>Effects</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>diesel no. 2 fuel,</td>
<td>Micro-organism</td>
<td>EL50 &gt;1000 mg/l Nominal Fresh water</td>
<td>40 hours</td>
<td>growth inhibition</td>
<td>Based on Vacuum gas oil / Hydrocracked gas oil / Distillate Fuel</td>
</tr>
<tr>
<td></td>
<td>Micro-organism</td>
<td>NOELR 3.217 mg/l Nominal Fresh water</td>
<td>40 hours</td>
<td>growth inhibition</td>
<td>Based on Vacuum gas oil / Hydrocracked gas oil / Distillate Fuel</td>
</tr>
<tr>
<td></td>
<td>Algae</td>
<td>Acute EL50 22 mg/l Nominal Fresh water</td>
<td>72 hours</td>
<td>(growth rate)</td>
<td>Based on Diesel fuel</td>
</tr>
<tr>
<td></td>
<td>Daphnia</td>
<td>Acute EL50 210 mg/l Nominal Fresh water</td>
<td>48 hours</td>
<td>Mobility</td>
<td>Based on Diesel fuel</td>
</tr>
<tr>
<td></td>
<td>Daphnia</td>
<td>Acute EL50 68 mg/l Nominal Fresh water</td>
<td>48 hours</td>
<td>Mobility</td>
<td>Based on Diesel fuel</td>
</tr>
<tr>
<td></td>
<td>Algae</td>
<td>Acute ER50 78 mg/l Nominal Fresh water</td>
<td>72 hours</td>
<td>(growth rate)</td>
<td>Based on Diesel fuel</td>
</tr>
<tr>
<td></td>
<td>Fish</td>
<td>Acute LL50 65 mg/l Nominal Fresh water</td>
<td>96 hours</td>
<td>Mortality</td>
<td>Based on Diesel fuel</td>
</tr>
<tr>
<td></td>
<td>Fish</td>
<td>Acute LL50 21 mg/l Nominal Fresh water</td>
<td>96 hours</td>
<td>Mortality</td>
<td>Based on Diesel fuel</td>
</tr>
<tr>
<td></td>
<td>Algae</td>
<td>Acute NOELR 10 mg/l Nominal Fresh water</td>
<td>72 hours</td>
<td>(growth rate)</td>
<td>Based on Diesel fuel</td>
</tr>
<tr>
<td></td>
<td>Algae</td>
<td>Acute NOELR 1 mg/l Nominal Fresh water</td>
<td>72 hours</td>
<td>(growth rate)</td>
<td>Based on Diesel fuel</td>
</tr>
<tr>
<td></td>
<td>Daphnia</td>
<td>Acute NOELR 46 mg/l Nominal Fresh water</td>
<td>48 hours</td>
<td>Mobility</td>
<td>Based on Diesel fuel</td>
</tr>
<tr>
<td></td>
<td>Fish</td>
<td>Chronic NOEL 0.083 mg/l Nominal Fresh water</td>
<td>14 days</td>
<td>Mortality</td>
<td>Based on Vacuum gas oil / Hydrocracked gas oil / Distillate Fuel</td>
</tr>
<tr>
<td></td>
<td>Daphnia</td>
<td>Chronic NOELR 0.2 mg/l Nominal Fresh water</td>
<td>21 days</td>
<td>Immobilization</td>
<td>Based on Vacuum gas oil / Hydrocracked gas oil / Distillate Fuel</td>
</tr>
<tr>
<td>naphthalene</td>
<td>Algae</td>
<td>EC50 0.4 mg/l</td>
<td>96 hours</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Crustaceans</td>
<td>EC50 2.16 mg/l</td>
<td>48 hours</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
Section 12. Ecological information

Conclusion/Summary
Not available.

Persistence and degradability
Not available.

Bioaccumulative potential
This product is not expected to bioaccumulate through food chains in the environment.

Mobility in soil
Soil/water partition coefficient (Koc) Not available.
Mobility
Spillages may penetrate the soil causing ground water contamination.

Other ecological information
Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

Section 13. Disposal considerations

Disposal methods
The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

United States - RCRA Toxic hazardous waste "U" List

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS #</th>
<th>Status</th>
<th>Reference number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>Listed</td>
<td>U165</td>
</tr>
</tbody>
</table>

Section 14. Transport information

<table>
<thead>
<tr>
<th>DOT Classification</th>
<th>TDG Classification</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number</td>
<td>NA1993</td>
<td>UN1202</td>
<td>UN1202</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>Diesel fuel</td>
<td>Gas oil</td>
<td>Gas oil</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>Combustible liquid.</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Packing group III III III III
**Section 14. Transport information**

<table>
<thead>
<tr>
<th>Environmental hazards</th>
<th>No.</th>
<th>Additional information</th>
<th>Yes.</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials in package sizes less than the product reportable quantity.</td>
<td>The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.</td>
<td>The environmentally hazardous substance mark may appear if required by other transportation regulations.</td>
</tr>
</tbody>
</table>

**Reportable quantity**
100 lbs / 45.4 kg [14.152 gal / 53.569 L]

Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

**Special precautions for use**
Not available.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**
Proper shipping name
MARPOL Annex 1 rules apply for bulk shipments by sea.
Category: gas oils, including ship's bunkers

**Section 15. Regulatory information**

**U.S. Federal regulations**
United States inventory (TSCA 8b)
SARA 302/304

**Composition/information on ingredients**
No products were found.

**SARA 311/312**
Classification
Fire hazard
Immediate (acute) health hazard
Delayed (chronic) health hazard

**SARA 313**

**Product name** Diesel Fuel No. 2
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Section 15. Regulatory information

<table>
<thead>
<tr>
<th>Product name</th>
<th>CAS number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form R - Reporting requirements</td>
<td>naphthalene</td>
<td>91-20-3</td>
</tr>
<tr>
<td>Supplier notification</td>
<td>naphthalene</td>
<td>91-20-3</td>
</tr>
</tbody>
</table>

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts
The following components are listed: NAPHTHALENE

New Jersey
The following components are listed: NAPHTHALENE; MOTH FLAKES

Pennsylvania
The following components are listed: NAPHTHALENE

California Prop. 65
WARNING: This product contains a chemical known to the State of California to cause cancer.
naphthalene; cumene; ethylbenzene; cumene; Propylene oxide; benzo[a]pyrene

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.
Toluene; Methanol

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.
Benzene

Prop 65 chemicals will result under certain conditions from the use of this material. For example, burning fuels produces combustion products including diesel exhaust, a Prop 65 carcinogen, and carbon monoxide, a Prop 65 reproductive toxin.

Other regulations

Australia inventory (AICS)
At least one component is not listed.

Canada inventory
Not determined.

China inventory (IECSC)
At least one component is not listed.

Japan inventory (ENCS)
At least one component is not listed.

Korea inventory (KECI)
At least one component is not listed.

Philippines inventory (PICCS)
At least one component is not listed.

Taiwan inventory (CSNN)
Not determined.

REACH Status
For the REACH status of this product please consult your company contact, as identified in Section 1.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Physical hazards</th>
<th>Personal protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2</td>
<td>0</td>
<td>X</td>
</tr>
</tbody>
</table>

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

National Fire Protection Association (U.S.A.)

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Instability/Reactivity</th>
<th>Special</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Version: 1
Date of issue: 01/06/2015.
Format: US
Language: ENGLISH
Section 16. Other information

History

Date of issue/Date of revision
01/06/2015.

Date of previous issue
01/06/2015.

Key to abbreviations
ACGIH = American Conference of Industrial Hygienists
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
CAS Number = Chemical Abstracts Service Registry Number
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
OEL = Occupational Exposure Limit
SDS = Safety Data Sheet
STEL = Short term exposure limit
TWA = Time weighted average
UN = United Nations
UN Number = United Nations Number, a four digit number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods.

煸 Indicates information that has changed from previously issued version.

Notice to reader

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from BP Group.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken. You can contact the BP Group to ensure that this document is the most current available. Alteration of this document is strictly prohibited.