



# Safety Data Sheet

Issue Date: 14-Oct-2011

Revision Date: 11-May-2015

Version 1

## 1. IDENTIFICATION

### Product Identifier

**Product Name** OCTANE BOOST

### Other means of identification

**SDS #** 7777-044

**Product Code** 2004

**UN/ID No** UN1268

### Recommended use of the chemical and restrictions on use

**Recommended Use** Engine octane boost additive.

### Details of the supplier of the safety data sheet

#### **Supplier Address**

PETRA OIL COMPANY  
6100 WEST by NORTHWEST BLVD STE 190  
Houston, TX 77040

### Emergency Telephone Number

**Emergency Telephone (24 hr)** CHEMTREC 1-800-424-9300

## 2. HAZARDS IDENTIFICATION

**Appearance** Clear to yellow or brown liquid

**Physical State** Liquid

**Odor** Strong Kerosene odor

### Classification

|  |             |
|--|-------------|
| Acute toxicity - Oral                              | Category 4  |
| Acute toxicity - Dermal                            | Category 3  |
| Acute toxicity - Inhalation (Vapors)               | Category 3  |
| Acute toxicity - Inhalation (Dusts/Mists)          | Category 4  |
| Germ cell mutagenicity                             | Category 1B |
| Carcinogenicity                                    | Category 1A |
| Reproductive toxicity                              | Category 2  |
| Specific target organ toxicity (repeated exposure) | Category 2  |
| Aspiration toxicity                                | Category 1  |
| Flammable Liquids                                  | Category 3  |

### Hazards Not Otherwise Classified (HNOC)

Causes mild skin irritation

### Signal Word

**Danger**

**Hazard Statements**

Harmful if swallowed  
Toxic in contact with skin  
Toxic if inhaled  
May cause genetic defects  
May cause cancer  
Suspected of damaging fertility or the unborn child  
May cause damage to organs through prolonged or repeated exposure  
May be fatal if swallowed and enters airways  
Flammable liquid and vapor

**Precautionary Statements - Prevention**

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Use personal protective equipment as required  
Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Use only outdoors or in a well-ventilated area  
Do not breathe dust/fume/gas/mist/vapors/spray  
Keep away from heat/sparks/open flames/hot surfaces. — No smoking  
Keep container tightly closed  
Ground/bond container and receiving equipment  
Use explosion-proof equipment  
Use only non-sparking tools  
Take precautionary measures against static discharge  
Keep cool

**Precautionary Statements - Response**

If exposed or concerned: Get medical advice/attention  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
Wash contaminated clothing before reuse  
Call a poison center or doctor/physician if you feel unwell  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
Immediately call a poison center or doctor/physician  
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
Do not induce vomiting  
Rinse mouth  
IN CASE OF FIRE: Use CO<sub>2</sub>, dry chemical, or foam for extinction

**Precautionary Statements - Storage**

Store locked up  
Store in a well-ventilated place. Keep container tightly closed

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other Hazards**

Toxic to aquatic life with long lasting effects

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name                                     | CAS No     | Weight-% |
|---|------------|----------|
| Kerosene  | 8008-20-6  | >99      |
| Distillates, petroleum, petroleum residues vacuum | 68955-27-1 | 0-99     |
| Naphthalene                                       | 91-20-3    | 0-3      |
| Xylene  | 1330-20-7  | 0-2      |
| Toluene   | 108-88-3   | 0-1      |
| Ethylbenzene                                      | 100-41-4   | 0-1      |
| Cyclohexane                                       | 110-82-7   | 0-1      |
| Benzene   | 71-43-2    | 0-0.5    |

\*\*If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.\*\*

### 4. FIRST-AID MEASURES

#### First Aid Measures

|                     |  |
|---------------------|--|
| <b>Eye Contact</b>  | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Do not use an eye ointment. Seek medical attention.   |
| <b>Skin Contact</b> | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. Do not apply oils or ointments unless ordered to by a physician. Call a poison center or doctor/physician if you feel unwell. |
| <b>Inhalation</b>   | If symptomatic, move to fresh air. Immediately call a poison center or doctor/physician.   |
| <b>Ingestion</b>    | Immediately call a physician or poison center in case of ingestion.  |

#### Most important symptoms and effects

|                 |  |
|-----------------|--|
| <b>Symptoms</b> | Mild eye, skin, and/or respiratory irritation. May cause discomfort if swallowed. Inhalation symptoms may include dizziness and headache. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. |
|-----------------|--|

#### Indication of any immediate medical attention and special treatment needed

|                           |  |
|---------------------------|--|
| <b>Notes to Physician</b> | In case of ingestion, gastric lavage with activated charcoal can be used promptly to prevent absorption. Consideration should be given to the use of an intratracheal tube, to prevent aspiration. Irregular heartbeat may occur, use of adrenalin is not advisable. Individuals intoxicated by the product should be hospitalized immediately, with acute and continuing attention to neurological and cardiopulmonary function. Positive pressure ventilation may be necessary. After the initial episode, individuals should be monitored for changes in blood variables and the delayed appearance of pulmonary edema and chemical pneumonia. Such patients should be monitored for several days or weeks for delayed effects, including bone marrow toxicity, hepatic and renal impairment. Individuals with chronic pulmonary disease will be more seriously impaired, and recovery from inhalation exposure may be complicated. In case of skin injection, prompt debridement of the wound is necessary to minimize necrosis and tissue loss. |
|---------------------------|--|

## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

Carbon dioxide (CO<sub>2</sub>). Dry chemical. Foam.

**Unsuitable Extinguishing Media** Water jet. Water may cause frothing.

### Specific Hazards Arising from the Chemical

Flammable liquid and vapor. Vapors may travel to source of ignition and flash back. Vapors may accumulate in confined areas (basement, tanks, hopper/tank cars, etc.).

**Hazardous Combustion Products** Smoke, fumes or vapors, and oxides of carbon. Oxides of sulfur. Nitrogen oxides (NO<sub>x</sub>). Varied particulate matter. Volatile organic compounds.

**Sensitivity to Static Discharge** Take precautionary measures against static discharge.

### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Cool containers to prevent pressure buildup and possible explosion when exposed to extreme heat. Evacuate area and fight fire from a safe distance. Do not release runoff from fire control methods to sewers or waterways.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

|                                  |  |
|----------------------------------|--|
| <b>Personal Precautions</b>      | Use personal protective equipment as required. Remove all sources of ignition. Evacuate unnecessary personnel. A vapor suppressing foam may be used to reduce vapors. All equipment used when handling the product must be grounded. Use non-sparking tools. Ensure clean-up is conducted by trained personnel only. |
| <b>Other Information</b>         | Immediately contact emergency personnel.   |
| <b>Environmental Precautions</b> | In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. The National Response Center (NRC) can be reached at 1-800-424-8802. See Section 12 for additional Ecological Information.   |

### Methods and material for containment and cleaning up

|                                |   |
|--------------------------------|---|
| <b>Methods for Containment</b> | Stop leak if you can do it without risk. Small spill: Cover with a non-combustible material and remove to approved disposal container. For large spills, dike far ahead of spill for later disposal. Prevent runoff to storm sewers and ditches leading to natural waterways. Collect using an inert absorbent material and place in appropriate containers for disposal. |
| <b>Methods for Clean-Up</b>    | Keep in suitable, closed containers for disposal.   |

## 7. HANDLING AND STORAGE

### Precautions for safe handling

|                                |   |
|--------------------------------|---|
| <b>Advice on Safe Handling</b> | Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Avoid breathing vapors or mists. Use only with adequate ventilation. Wash face, hands, and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe vapors. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Ground/bond container and receiving equipment. Use non-sparking hand tools and explosion-proof electrical equipment. Take precautionary measures against static discharges. Never siphon by mouth. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose to any source of ignition. |
|--------------------------------|---|

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

Keep containers tightly closed in a cool, well-ventilated place. Empty containers may contain harmful, flammable/combustible or explosive vapors/residue. Do not cut, drill, grind, or weld on or near this container; residual vapors may ignite. Protect from excessive heat. Do not handle or store near any sources of ignition. Store away from incompatible materials. Store locked up.

**Incompatible Materials**

Oxidizing agents. Acids. Alkalis. Halogens. Hydrogen peroxide. Chlorinating agents.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Exposure Guidelines**

| Chemical Name            | ACGIH TLV   | OSHA PEL  | NIOSH IDLH  |
|--------------------------|---|---|---|
| Kerosene<br>8008-20-6    | TWA: 200 mg/m <sup>3</sup> total hydrocarbon vapor application restricted to conditions in which there are negligible aerosol exposures<br>S* | -   | TWA: 100 mg/m <sup>3</sup>  |
| Naphthalene<br>91-20-3   | TWA: 10 ppm<br>S*   | TWA: 10 ppm<br>TWA: 50 mg/m <sup>3</sup><br>(vacated) TWA: 10 ppm<br>(vacated) TWA: 50 mg/m <sup>3</sup><br>(vacated) STEL: 15 ppm<br>(vacated) STEL: 75 mg/m <sup>3</sup>  | IDLH: 250 ppm<br>TWA: 10 ppm<br>TWA: 50 mg/m <sup>3</sup><br>STEL: 15 ppm<br>STEL: 75 mg/m <sup>3</sup>     |
| Xylene<br>1330-20-7      | STEL: 150 ppm<br>TWA: 100 ppm   | TWA: 100 ppm<br>TWA: 435 mg/m <sup>3</sup><br>(vacated) TWA: 100 ppm<br>(vacated) TWA: 435 mg/m <sup>3</sup><br>(vacated) STEL: 150 ppm<br>(vacated) STEL: 655 mg/m <sup>3</sup>  | -   |
| Ethylbenzene<br>100-41-4 | TWA: 20 ppm   | TWA: 100 ppm<br>TWA: 435 mg/m <sup>3</sup><br>(vacated) TWA: 100 ppm<br>(vacated) TWA: 435 mg/m <sup>3</sup><br>(vacated) STEL: 125 ppm<br>(vacated) STEL: 545 mg/m <sup>3</sup>  | IDLH: 800 ppm<br>TWA: 100 ppm<br>TWA: 435 mg/m <sup>3</sup><br>STEL: 125 ppm<br>STEL: 545 mg/m <sup>3</sup> |
| Toluene<br>108-88-3      | TWA: 20 ppm   | TWA: 200 ppm<br>(vacated) TWA: 100 ppm<br>(vacated) TWA: 375 mg/m <sup>3</sup><br>(vacated) STEL: 150 ppm<br>(vacated) STEL: 560 mg/m <sup>3</sup><br>Ceiling: 300 ppm  | IDLH: 500 ppm<br>TWA: 100 ppm<br>TWA: 375 mg/m <sup>3</sup><br>STEL: 150 ppm<br>STEL: 560 mg/m <sup>3</sup> |
| Cyclohexane<br>110-82-7  | TWA: 100 ppm  | TWA: 300 ppm<br>TWA: 1050 mg/m <sup>3</sup><br>(vacated) TWA: 300 ppm<br>(vacated) TWA: 1050 mg/m <sup>3</sup>  | IDLH: 1300 ppm<br>TWA: 300 ppm<br>TWA: 1050 mg/m <sup>3</sup>   |
| Benzene<br>71-43-2       | STEL: 2.5 ppm<br>TWA: 0.5 ppm<br>S*   | TWA: 10 ppm applies to industry segments exempt from the benzene standard at 29 CFR 1910.1028<br>TWA: 1 ppm<br>(vacated) TWA: 10 ppm unless specified in 1910.1028<br>(vacated) STEL: 50 ppm 10 min unless specified in 1910.1028<br>(vacated) Ceiling: 25 ppm unless specified in 1910.1028<br>Ceiling: 25 ppm<br>STEL: 5 ppm see 29 CFR 1910.1028 | IDLH: 500 ppm<br>TWA: 0.1 ppm<br>STEL: 1 ppm  |

**Appropriate engineering controls**

**Engineering Controls** Apply technical measures to comply with the occupational exposure limits. Eyewash stations. Showers.

**Individual protection measures, such as personal protective equipment**

**Eye/Face Protection** Chemical face shield, goggles with face shield or protective safety glasses equipped with side shields are recommended as minimum protection in industrial settings.

**Skin and Body Protection** Chemical resistant, impermeable gloves. Use nitrile or viton gloves.

**Respiratory Protection** Ensure adequate ventilation, especially in confined areas. Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) organic vapor/particulate respirator as needed. Observe OSHA regulations for respirator use.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash face, hands and any exposed skin thoroughly after handling.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

|                                     |                                     |                                |                      |
|-------------------------------------|-------------------------------------|--------------------------------|----------------------|
| <b>Physical State</b>               | Liquid                              | <b>Odor</b>                    | Strong Kerosene odor |
| <b>Appearance</b>                   | Clear to yellow or brown liquid     | <b>Odor Threshold</b>          | Not determined       |
| <b>Color</b>                        | Clear to yellow or brown            |                                |                      |
| <b><u>Property</u></b>              | <b><u>Values</u></b>                | <b><u>Remarks • Method</u></b> |                      |
| <b>pH</b>                           | Not determined                      |                                |                      |
| <b>Melting Point/Freezing Point</b> | Not determined                      |                                |                      |
| <b>Boiling Point/Boiling Range</b>  | 104-304 °C / 220-580 °F             |                                |                      |
| <b>Flash Point</b>                  | 48 °C / 120 °F                      | TCC                            |                      |
| <b>Evaporation Rate</b>             | Not determined                      |                                |                      |
| <b>Flammability (Solid, Gas)</b>    | Liquid-not applicable               |                                |                      |
| <b>Upper Flammability Limits</b>    | 6%                                  |                                |                      |
| <b>Lower Flammability Limit</b>     | 0.7%                                |                                |                      |
| <b>Vapor Pressure</b>               | <5.2 mmHg                           | @ 20 C                         |                      |
| <b>Vapor Density</b>                | 3                                   | (Air=1)                        |                      |
| <b>Specific Gravity</b>             | 0.79-0.9                            | (1=Water)                      |                      |
| <b>Water Solubility</b>             | Very slightly soluble in cold water |                                |                      |
| <b>Solubility in other solvents</b> | Not determined                      |                                |                      |
| <b>Partition Coefficient</b>        | Not determined                      |                                |                      |
| <b>Auto-ignition Temperature</b>    | 204 °C / 400 °F                     |                                |                      |
| <b>Decomposition Temperature</b>    | Not determined                      |                                |                      |
| <b>Kinematic Viscosity</b>          | Not determined                      |                                |                      |
| <b>Dynamic Viscosity</b>            | Not determined                      |                                |                      |
| <b>Explosive Properties</b>         | Not determined                      |                                |                      |
| <b>Oxidizing Properties</b>         | Not determined                      |                                |                      |

## 10. STABILITY AND REACTIVITY

**Reactivity**

Not reactive under normal conditions.

**Chemical Stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Hazardous Polymerization** Hazardous polymerization does not occur.

**Conditions to Avoid**  
See Sec. 7 Handling & Storage.

**Incompatible Materials**  
Oxidizing agents. Acids. Alkalis. Halogens. Hydrogen peroxide. Chlorinating agents.

**Hazardous Decomposition Products**  
Smoke, fumes or vapors, and oxides of carbon. Oxides of sulfur. Nitrogen oxides (NOx). Volatile organic compounds. Particulate matter.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

**Eye Contact** Avoid contact with eyes.

**Skin Contact** Causes mild skin irritation. Toxic in contact with skin.

**Inhalation** Toxic if inhaled.

**Ingestion** Harmful if swallowed.

### Component Information

| Chemical Name   | Oral LD50                                | Dermal LD50                                     | Inhalation LC50                                 |
|---|--|---|---|
| Distillates, petroleum, petroleum residues vacuum<br>68955-27-1 | = 4320 mg/kg ( Rat )                     | > 2000 mg/kg ( Rabbit )                         | -   |
| Kerosene<br>8008-20-6   | > 5000 mg/kg ( Rat )                     | > 2000 mg/kg ( Rabbit )                         | > 5.28 mg/L ( Rat ) 4 h                         |
| Naphthalene<br>91-20-3  | = 490 mg/kg ( Rat ) = 1110 mg/kg ( Rat ) | > 20 g/kg ( Rabbit ) = 1120 mg/kg ( Rabbit )    | > 340 mg/m <sup>3</sup> ( Rat ) 1 h             |
| Xylene<br>1330-20-7   | = 3500 mg/kg ( Rat )                     | > 4350 mg/kg ( Rabbit ) > 1700 mg/kg ( Rabbit ) | = 29.08 mg/L ( Rat ) 4 h = 5000 ppm ( Rat ) 4 h |
| Ethylbenzene<br>100-41-4  | = 3500 mg/kg ( Rat )                     | = 15400 mg/kg ( Rabbit )                        | = 17.2 mg/L ( Rat ) 4 h                         |
| Toluene<br>108-88-3   | = 2600 mg/kg ( Rat )                     | = 12000 mg/kg ( Rabbit )                        | = 12.5 mg/L ( Rat ) 4 h                         |
| Cyclohexane<br>110-82-7   | > 5000 mg/kg ( Rat )                     | > 2000 mg/kg ( Rabbit )                         | = 13.9 mg/L ( Rat ) 4 h                         |
| Benzene<br>71-43-2  | = 810 mg/kg ( Rat ) = 1800 mg/kg ( Rat ) | > 8200 mg/kg ( Rabbit )                         | = 44.66 mg/L ( Rat ) 4 h                        |

### Information on physical, chemical and toxicological effects

**Symptoms** Please see section 4 of this SDS for symptoms.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Germ cell mutagenicity** May cause genetic defects.

**Carcinogenicity** May cause cancer.

| Chemical Name            | ACGIH | IARC     | NTP                    | OSHA |
|--------------------------|-------|----------|------------------------|------|
| Kerosene<br>8008-20-6    | A3    | Group 3  |                        |      |
| Naphthalene<br>91-20-3   | A3    | Group 2A | Reasonably Anticipated | X    |
| Xylene<br>1330-20-7      |       | Group 3  |                        |      |
| Ethylbenzene<br>100-41-4 | A3    | Group 2B |                        | X    |
| Toluene<br>108-88-3      |       | Group 3  |                        |      |
| Benzene<br>71-43-2       | A1    | Group 1  | Known                  | X    |

**Legend**

**ACGIH (American Conference of Governmental Industrial Hygienists)**

A1 - Known Human Carcinogen

A3 - Animal Carcinogen

**IARC (International Agency for Research on Cancer)**

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

Group 3 IARC components are "not classifiable as human carcinogens"

**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**

X - Present

**Reproductive toxicity** Suspected of damaging fertility or the unborn child.

**STOT - repeated exposure** May cause damage to organs through prolonged or repeated exposure.

**Aspiration hazard** May be fatal if swallowed and enters airways.

**Numerical measures of toxicity**

Not determined

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

Toxic to aquatic life with long lasting effects.

**Component Information**

| Chemical Name  | Algae/aquatic plants                        | Fish  | Toxicity to microorganisms | Crustacea   |
|--|---|---|----------------------------|---|
| Distillates, petroleum,<br>petroleum residues vacuum<br>68955-27-1 |   | 48: 96 h Brachydanio rerio<br>mg/L LC50 semi-static   |                            |   |
| Naphthalene<br>91-20-3   | 0.4: 72 h Skeletonema<br>costatum mg/L EC50 | 5.74 - 6.44: 96 h Pimephales<br>promelas mg/L LC50 flow-<br>through 1.6: 96 h<br>Oncorhynchus mykiss mg/L<br>LC50 flow-through 0.91 -<br>2.82: 96 h Oncorhynchus<br>mykiss mg/L LC50 static<br>1.99: 96 h Pimephales<br>promelas mg/L LC50 static<br>31.0265: 96 h Lepomis<br>macrochirus mg/L LC50<br>static |                            | 2.16: 48 h Daphnia magna<br>mg/L LC50 1.96: 48 h<br>Daphnia magna mg/L EC50<br>Flow through 1.09 - 3.4: 48 h<br>Daphnia magna mg/L EC50<br>Static |



|                          |  |   |   |   |
|--------------------------|--|---|---|---|
| Xylene<br>1330-20-7      |  | 13.4: 96 h Pimephales promelas mg/L LC50 flow-through 2.661 - 4.093: 96 h Oncorhynchus mykiss mg/L LC50 static 30.26 - 40.75: 96 h Poecilia reticulata mg/L LC50 static 23.53 - 29.97: 96 h Pimephales promelas mg/L LC50 static 780: 96 h Cyprinus carpio mg/L LC50 780: 96 h Cyprinus carpio mg/L LC50 semi-static 7.711 - 9.591: 96 h Lepomis macrochirus mg/L LC50 static 19: 96 h Lepomis macrochirus mg/L LC50 13.5 - 17.3: 96 h Oncorhynchus mykiss mg/L LC50 13.1 - 16.5: 96 h Lepomis macrochirus mg/L LC50 flow-through | EC50 = 0.0084 mg/L 24 h                         | 3.82: 48 h water flea mg/L EC50 0.6: 48 h Gammarus lacustris mg/L LC50              |
| Ethylbenzene<br>100-41-4 | 4.6: 72 h Pseudokirchneriella subcapitata mg/L EC50 1.7 - 7.6: 96 h Pseudokirchneriella subcapitata mg/L EC50 static 438: 96 h Pseudokirchneriella subcapitata mg/L EC50 2.6 - 11.3: 72 h Pseudokirchneriella subcapitata mg/L EC50 static | 11.0 - 18.0: 96 h Oncorhynchus mykiss mg/L LC50 static 4.2: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 9.6: 96 h Poecilia reticulata mg/L LC50 static 32: 96 h Lepomis macrochirus mg/L LC50 static 9.1 - 15.6: 96 h Pimephales promelas mg/L LC50 static 7.55 - 11: 96 h Pimephales promelas mg/L LC50 flow-through  | EC50 = 9.68 mg/L 30 min<br>EC50 = 96 mg/L 24 h  | 1.8 - 2.4: 48 h Daphnia magna mg/L EC50   |
| Toluene<br>108-88-3      | 433: 96 h Pseudokirchneriella subcapitata mg/L EC50 12.5: 72 h Pseudokirchneriella subcapitata mg/L EC50 static  | 15.22 - 19.05: 96 h Pimephales promelas mg/L LC50 flow-through 12.6: 96 h Pimephales promelas mg/L LC50 static 11.0 - 15.0: 96 h Lepomis macrochirus mg/L LC50 static 5.89 - 7.81: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 54: 96 h Oryzias latipes mg/L LC50 static 28.2: 96 h Poecilia reticulata mg/L LC50 semi-static 50.87 - 70.34: 96 h Poecilia reticulata mg/L LC50 static 14.1 - 17.16: 96 h Oncorhynchus mykiss mg/L LC50 static 5.8: 96 h Oncorhynchus mykiss mg/L LC50 semi-static                            | EC50 = 19.7 mg/L 30 min                         | 5.46 - 9.83: 48 h Daphnia magna mg/L EC50 Static 11.5: 48 h Daphnia magna mg/L EC50 |
| Cyclohexane<br>110-82-7  | 500: 72 h Desmodium subspicatum mg/L EC50  | 3.96 - 5.18: 96 h Pimephales promelas mg/L LC50 flow-through 23.03 - 42.07: 96 h Pimephales promelas mg/L LC50 static 24.99 - 44.69: 96 h Lepomis macrochirus mg/L LC50 static 48.87 - 68.76: 96 h Poecilia reticulata mg/L LC50 static   | EC50 = 85.5 mg/L 5 min<br>EC50 = 93 mg/L 10 min | 400: 24 h Daphnia magna mg/L EC50   |

|                    |  |   |   |
|--------------------|--|---|---|
| Benzene<br>71-43-2 | 29: 72 h Pseudokirchneriella subcapitata mg/L EC50 | 10.7 - 14.7: 96 h Pimephales promelas mg/L LC50 flow-through 5.3: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 70000 - 142000: 96 h Lepomis macrochirus µg/L LC50 static 22.49: 96 h Lepomis macrochirus mg/L LC50 static 28.6: 96 h Poecilia reticulata mg/L LC50 static 22330 - 41160: 96 h Pimephales promelas µg/L LC50 static | 8.76 - 15.6: 48 h Daphnia magna mg/L EC50 Static 10: 48 h Daphnia magna mg/L EC50 |
|--------------------|--|---|---|

**Persistence/Degradability**

Not determined.

**Bioaccumulation**

Not determined.

**Mobility**

| Chemical Name            | Partition Coefficient |
|--------------------------|-----------------------|
| Naphthalene<br>91-20-3   | 3.3                   |
| Xylene<br>1330-20-7      | 2.77 - 3.15           |
| Ethylbenzene<br>100-41-4 | 3.118                 |
| Toluene<br>108-88-3      | 2.65                  |
| Cyclohexane<br>110-82-7  | 3.44                  |
| Benzene<br>71-43-2       | 1.83                  |

**Other Adverse Effects**

Not determined

**13. DISPOSAL CONSIDERATIONS****Waste Treatment Methods****Disposal of Wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated Packaging**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**US EPA Waste Number**

| Chemical Name            | RCRA | RCRA - Basis for Listing  | RCRA - D Series Wastes | RCRA - U Series Wastes |
|--------------------------|------|---|------------------------|------------------------|
| Naphthalene<br>91-20-3   | U165 | Included in waste streams: F024, F025, F034, F039, K001, K035, K060, K087, K145 |                        | U165                   |
| Xylene<br>1330-20-7      |      | Included in waste stream: F039  |                        | U239                   |
| Ethylbenzene<br>100-41-4 |      | Included in waste stream: F039  |                        |                        |

|                         |      |  |                           |      |
|-------------------------|------|--|---------------------------|------|
| Toluene<br>108-88-3     | U220 | Included in waste streams:<br>F005, F024, F025, F039,<br>K015, K036, K037, K149,<br>K151   |                           | U220 |
| Cyclohexane<br>110-82-7 |      |  |                           | U056 |
| Benzene<br>71-43-2      | U019 | Included in waste streams:<br>F005, F024, F025, F037,<br>F038, F039, K085, K104,<br>K105, K141, K142, K143,<br>K144, K145, K147, K151,<br>K159, K169, K171, K172 | 0.5 mg/L regulatory level | U019 |

| Chemical Name          | RCRA - Halogenated Organic Compounds | RCRA - P Series Wastes | RCRA - F Series Wastes   | RCRA - K Series Wastes |
|------------------------|--------------------------------------|------------------------|--|------------------------|
| Naphthalene<br>91-20-3 |                                      |                        | Toxic waste<br>waste number F025<br>Waste description:<br>Condensed light ends, spent<br>filters and filter aids, and<br>spent desiccant wastes from<br>the production of certain<br>chlorinated aliphatic<br>hydrocarbons, by free radical<br>catalyzed processes. These<br>chlorinated aliphatic<br>hydrocarbons are those<br>having carbon chain lengths<br>ranging from one to and<br>including five, with varying<br>amounts and positions of<br>chlorine substitution. |                        |
| Toluene<br>108-88-3    |                                      |                        | Toxic waste<br>waste number F025<br>Waste description:<br>Condensed light ends, spent<br>filters and filter aids, and<br>spent desiccant wastes from<br>the production of certain<br>chlorinated aliphatic<br>hydrocarbons, by free radical<br>catalyzed processes. These<br>chlorinated aliphatic<br>hydrocarbons are those<br>having carbon chain lengths<br>ranging from one to and<br>including five, with varying<br>amounts and positions of<br>chlorine substitution. |                        |
| Benzene<br>71-43-2     |                                      |                        | no data delivered  | no data delivered      |

### California Hazardous Waste Status

| Chemical Name            | California Hazardous Waste Status |
|--------------------------|-----------------------------------|
| Naphthalene<br>91-20-3   | Toxic                             |
| Xylene<br>1330-20-7      | Toxic<br>Ignitable                |
| Ethylbenzene<br>100-41-4 | Toxic<br>Ignitable                |
| Toluene<br>108-88-3      | Toxic<br>Ignitable                |
| Cyclohexane<br>110-82-7  | Toxic<br>Ignitable                |
| Benzene<br>71-43-2       | Toxic<br>Ignitable                |

## 14. TRANSPORT INFORMATION

**Note** Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

### DOT

UN/ID No UN1268  
 Proper Shipping Name Petroleum distillates, n.o.s.  
 Hazard Class 3  
 Packing Group III  
 Emergency Response Guide Number 128

### IATA

UN/ID No UN1268  
 Proper Shipping Name Petroleum distillates, n.o.s.  
 Hazard Class 3  
 Packing Group III

### IMDG

UN/ID No UN1268  
 Proper Shipping Name Petroleum distillates, n.o.s.  
 Hazard Class 3  
 Packing Group III  
 Marine Pollutant Manufacturer lists this material as a Marine Pollutant when shipped in quantities greater than 340 gallons

## 15. REGULATORY INFORMATION

### International Inventories

| Chemical Name                                     | TSCA    | DSL | NDSL | EINECS  | ELINCS | ENCS    | IECSC | KECL    | PICCS | AICS |
|---|---------|-----|------|---------|--------|---------|-------|---------|-------|------|
| Kerosene  | Present | X   |      | Present |        | Present | X     | Present | X     | X    |
| Distillates, petroleum, petroleum residues vacuum | Present | X   |      | Present |        | Present | X     | Present |       | X    |
| Naphthalene                                       | Present | X   |      | Present |        | Present | X     | Present | X     | X    |
| Xylene  | Present | X   |      | Present |        | Present | X     | Present | X     | X    |
| Toluene   | Present | X   |      | Present |        | Present | X     | Present | X     | X    |
| Ethylbenzene                                      | Present | X   |      | Present |        | Present | X     | Present | X     | X    |
| Cyclohexane                                       | Present | X   |      | Present |        | Present | X     | Present | X     | X    |
| Benzene   | Present | X   |      | Present |        | Present | X     | Present | X     | X    |

#### **Legend:**

*TSCA - United States Toxic Substances Control Act Section 8(b) Inventory*

*DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List*

*EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*

*ENCS - Japan Existing and New Chemical Substances*

*IECSC - China Inventory of Existing Chemical Substances*

*KECL - Korean Existing and Evaluated Chemical Substances*

*PICCS - Philippines Inventory of Chemicals and Chemical Substances*

*AICS - Australian Inventory of Chemical Substances*

**US Federal Regulations****CERCLA**

| Chemical Name            | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ)                  |
|--------------------------|--------------------------|----------------|---|
| Naphthalene<br>91-20-3   | 1 lb                     |                | RQ 1 lb final RQ<br>RQ 0.454 kg final RQ  |
| Xylene<br>1330-20-7      | 100 lb                   |                | RQ 100 lb final RQ<br>RQ 45.4 kg final RQ |
| Ethylbenzene<br>100-41-4 | 1000 lb                  |                | RQ 1000 lb final RQ<br>RQ 454 kg final RQ |
| Toluene<br>108-88-3      | 1 lb                     |                | RQ 1 lb final RQ<br>RQ 0.454 kg final RQ  |
| Cyclohexane<br>110-82-7  | 1000 lb                  |                | RQ 1000 lb final RQ<br>RQ 454 kg final RQ |
| Benzene<br>71-43-2       | 10 lb                    |                | RQ 10 lb final RQ<br>RQ 4.54 kg final RQ  |

**SARA 311/312 Hazard Categories**

|                                   |     |
|-----------------------------------|-----|
| Acute Health Hazard               | Yes |
| Chronic Health Hazard             | Yes |
| Fire Hazard                       | Yes |
| Sudden Release of Pressure Hazard | No  |
| Reactive Hazard                   | No  |

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical Name           | CAS No    | Weight-% | SARA 313 - Threshold Values % |
|-------------------------|-----------|----------|-------------------------------|
| Naphthalene - 91-20-3   | 91-20-3   | 0-3      | 0.1                           |
| Xylene - 1330-20-7      | 1330-20-7 | 0-2      | 1.0                           |
| Ethylbenzene - 100-41-4 | 100-41-4  | 0-1      | 0.1                           |
| Toluene - 108-88-3      | 108-88-3  | 0-1      | 1.0                           |
| Cyclohexane - 110-82-7  | 110-82-7  | 0-1      | 1.0                           |
| Benzene - 71-43-2       | 71-43-2   | 0-0.5    | 0.1                           |

**CWA (Clean Water Act)**

| Chemical Name | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Naphthalene   | 100 lb                      | X                      | X                         | X                          |
| Xylene        | 100 lb                      |                        |                           | X                          |
| Ethylbenzene  | 1000 lb                     | X                      | X                         | X                          |
| Toluene       | 1000 lb                     | X                      | X                         | X                          |
| Cyclohexane   | 1000 lb                     |                        |                           | X                          |
| Benzene       | 10 lb                       | X                      | X                         | X                          |

**US State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals.

| Chemical Name           | California Proposition 65                        |
|-------------------------|--|
| Naphthalene - 91-20-3   | Carcinogen                                       |
| Ethylbenzene - 100-41-4 | Carcinogen                                       |
| Toluene - 108-88-3      | Developmental<br>Female Reproductive             |
| Benzene - 71-43-2       | Carcinogen<br>Developmental<br>Male Reproductive |

**U.S. State Right-to-Know Regulations**

| Chemical Name            | New Jersey | Massachusetts | Pennsylvania |
|--------------------------|------------|---------------|--------------|
| Kerosene<br>8008-20-6    | X          | X             | X            |
| Naphthalene<br>91-20-3   | X          | X             | X            |
| Xylene<br>1330-20-7      | X          | X             | X            |
| Ethylbenzene<br>100-41-4 | X          | X             | X            |
| Toluene<br>108-88-3      | X          | X             | X            |
| Cyclohexane<br>110-82-7  | X          | X             | X            |
| Benzene<br>71-43-2       | X          | X             | X            |

**16. OTHER INFORMATION****NFPA****Health Hazards**

1

**Flammability**

3

**Instability**

0

**Special Hazards**

Not determined

**HMIS****Health Hazards**

1

**Flammability**

3

**Physical Hazards**

0

**Personal Protection**

Not determined

**Issue Date:**

14-Oct-2011

**Revision Date:**

11-May-2015

**Revision Note:**

New format

**Disclaimer**

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

**End of Safety Data Sheet**