

# SAFETY DATA SHEET

Revision Date 04-Dec-2017

SDS Number 888100004452

Revision Number 2.02

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

**Product Name** Jet Fuel

**Synonyms** Jet Fuel - A, A-I, A-50, Aviation Turbine Fuel, Jet A-I, Jet A, Avjet For Blending, Jet Q Turbine Fuel, Aviation Fuel, Turbine Fuel, JP-8, Av-Jet, Sweet Distillate, DUX, APPC463, RS203

**Recommended Use** Fuel  
**Uses advised against** All others

**Manufacturer, Importer, or Responsible Party**  
TESORO REFINING & MARKETING COMPANY LLC  
A Subsidiary of Marathon Petroleum Corporation  
539 South Main street  
Findlay, OH 45840

**SDS Information** 1-419-421-3070 (M-F; 8-5 EST)

**24 Hour** CHEMTREC: 1-800-424-9300  
**Emergency** (CCN# 13740)  
**Telephone**

## 2. HAZARDS IDENTIFICATION

### OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

### Classification

Flammable liquids	Category 3
Skin Corrosion/Irritation	Category 2
Carcinogenicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Aspiration toxicity	Category 1
Chronic Aquatic Toxicity	Category 2

### Hazards not otherwise classified (HNOC)

Static accumulating flammable liquid

### Label elements

#### Danger

Flammable liquid and vapor  
May accumulate electrostatic charge and ignite or explode.  
Causes skin irritation  
Suspected of causing cancer  
May cause respiratory irritation. May cause drowsiness or dizziness  
May be fatal if swallowed and enters airways  
Toxic to aquatic life with long lasting effects



**Appearance** Liquid

**Physical State @20°C** Liquid

**Odor** Characteristic petroleum or kerosene-like

**Precautionary Statements - Prevention**

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
Keep container tightly closed  
Ground/or bond container and receiving equipment  
Use explosion-proof electrical/ ventilating / lighting / equipment  
Use only non-sparking tools  
Take precautionary measures against static discharge  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Use only outdoors or in a well-ventilated area  
Wear protective gloves/protective clothing/eye protection/face protection  
Wash face, hands and any exposed skin thoroughly after handling  
Avoid release to the environment

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention  
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower  
If skin irritation occurs: Get medical advice/attention  
Wash contaminated clothing before reuse  
If inhaled: Remove person to fresh air and keep comfortable for breathing  
Call a POISON CENTER or doctor/physician if you feel unwell  
If swallowed: Immediately call a poison center or doctor  
Do NOT induce vomiting  
In case of fire: Use CO2, dry chemical, or foam to extinguish  
Collect spillage

**Precautionary Statements - Storage**

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

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other Information**

Not applicable.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS-No	Percent
Kerosene (petroleum)	8008-20-6	100
Naphthalene	91-20-3	0-3
Ethylbenzene	100-41-4	0-1
1,2,4-Trimethylbenzene	95-63-6	0-1

**4. FIRST AID MEASURES**

**Description of first aid measures**

**General advice**

Show this safety data sheet to the doctor in attendance. In case of an accident, remove from exposure. If you feel unwell, seek medical advice immediately. Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

**Inhalation**

Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical

attention immediately. If breathing is difficult, (trained personnel should) give oxygen. Get immediate medical advice/attention. Aspiration into lungs can produce severe lung damage.

<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician. Wash contaminated clothing before reuse. NOTE: When using this product in high pressure equipment - Accidental high velocity dermal injection of this material requires immediate medical attention.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Get immediate medical advice/attention.
<b>Self-protection of the first aider</b>	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Wear personal protective clothing (see section 8). Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Avoid breathing vapors or mists.

#### **Most important symptoms and effects, both acute and delayed**

<b>Symptoms</b>	Irritation. Redness. Itching. Inflammation. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. Aspiration Hazard. May cause coughing, chest pains, shortness of breath, pulmonary edema and/or chemical pneumonitis. Repeated or prolonged contact may cause drying and cracking of the skin.
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#### **Indication of any immediate medical attention and special treatment needed**

<b>Note to physicians</b>	INGESTION: Because of the danger of aspiration, emesis or gastric lavage should not be employed unless the risk is justified by the presence of additional toxic substances HIGH PRESSURE INJECTION: Accidents involving high pressure equipment may inject a stream of material through the skin and initially produce an injury which may not appear serious. However, even small punctures may compromise blood supply to the affected body part without proper treatment. Prompt surgical debridement of the wound may be necessary to prevent irreversible loss of function or the permanent loss of the affected body part.
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## **5. FIRE-FIGHTING MEASURES**

<b>Suitable Extinguishing Media</b>	For small fires: Any extinguisher suitable for class B fires such as dry chemical, CO <sub>2</sub> , foam (AFFF/ATC), or water spray can be used. For large fires: Water spray, fog or foam (AFFF/ATC) can be used.
<b>Unsuitable extinguishing media</b>	CAUTION: Use of water spray when fighting fire may be inefficient.
<b>Hazardous combustion products</b>	Smoke, CO, and other products of incomplete combustion.
<b>Explosion data</b>	
<b>Sensitivity to Mechanical Impact</b>	None.
<b>Sensitivity to Static Discharge</b>	Yes.
<b>Special protective equipment for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible withdraw from area and let fire burn.
<b>Additional firefighting tactics</b>	Always stay away from tanks engulfed in fire. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. Do not direct water at source of leak or safety devices; icing may occur. Cool containers with flooding quantities of water until well

after fire is out. Do not allow run-off from fire-fighting to enter drains or water courses.

**NFPA**

**Health hazards 1**

**Flammability 2**

**Stability 0**

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

#### **Personal precautions**

Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Take precautionary measures against static discharges. Pay attention to flashback. All equipment used when handling the product must be grounded. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists. Ensure adequate ventilation. Do not touch or walk through spilled material.

#### **Other Information**

Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

#### **Personal protective equipment**

Use personal protection measures as recommended in Section 8.

#### **For emergency responders**

Advise authorities and National Response Center (800-424-8802) if the product has entered a water course or sewer. Notify local health and pollution control agencies, if appropriate.

### Environmental precautions

#### **Environmental precautions**

Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

### Methods and material for containment and cleaning up

#### **Methods for containment**

Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

#### **Methods for cleaning up**

Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

#### **Advice on safe handling**

Use personal protection equipment. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice. Keep in an area equipped with sprinklers. Use according to package label instructions.

Hydrocarbon liquids including this product can act as a non-conductive flammable liquid (or static accumulator), and may form ignitable vapor-air mixtures in storage tanks or other containers. Precautions to prevent static initiated fire or explosion during transfer, storage or handling, include but are not limited to these examples: (1) Ground and bond containers during product transfers. Grounding and bonding may not be adequate protection to prevent ignition or explosion of hydrocarbon liquid and vapors that are static accumulators. (2) Special slow load procedures for "switch loading" must be followed to avoid the static ignition hazard that can exist when higher flash point material (such as fuel or diesel) is loaded into tanks previously containing low flash point products (such as gasoline or naphtha). (3) Storage tank level floats must be effectively bonded. For more information on precautions to prevent static-initiated fire or explosion, see NFPA 77 Recommended

Practice on Static Electricity and API Recommended Practice 2003 Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents.

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

**Storage Conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store locked up. Keep out of the reach of children. Store away from other materials.

Keep away from flame, sparks, excessive temperatures and open flame. Use approved containers. Keep containers closed and clearly labeled. Empty or partially full product containers or vessels may contain explosive vapors. Do not pressurize, cut, heat, weld or expose containers to sources of ignition. Store in a well-ventilated area. The storage area should comply with NFPA 30 "Flammable and Combustible Liquid Code". The cleaning of tanks previously containing this product should follow API Recommended Practice (RP) 2013 "Cleaning Mobile Tanks In Flammable and Combustible Liquid Service" and API RP 2015 "Cleaning Petroleum Storage Tanks". Keep away from food, drink and animal feed. Incompatible with oxidizing agents. Incompatible with acids. Emergency eye wash capability should be available in the near proximity to operations presenting a potential splash exposure.

**Incompatible materials**

Strong oxidizing agents.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Chemical Name	US ACGIH TLV	OSHA PEL	NIOSH IDLH
Kerosene (petroleum) 8008-20-6	TWA: 200 mg/m <sup>3</sup> total hydrocarbon vapor application restricted to conditions in which there are negligible aerosol exposures S*	-	-
Naphthalene 91-20-3	TWA: 10 ppm S*	TWA: 10 ppm TWA: 50 mg/m <sup>3</sup>	IDLH: 250 ppm
Ethylbenzene 100-41-4	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m <sup>3</sup>	IDLH: 800 ppm
1,2,4-Trimethylbenzene 95-63-6	TWA: 25 ppm	-	-

S\* - Potential exposure by cutaneous route

NOTE: Limits shown for guidance only. State, local or other agencies and advisory groups may have established more stringent limits. Follow applicable regulations.

**Appropriate engineering controls**

**Engineering controls**

Ventilation systems  
Eyewash stations  
Showers.

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

**Eye/face protection**

If splashes are likely to occur, wear safety glasses with side-shields.

**Hand Protection**

Wear suitable gloves. Contact the glove manufacturer for specific advice on glove selection and breakthrough times.

**Skin and body protection**

Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.

<b>Respiratory protection</b>	Use a NIOSH approved organic vapor chemical cartridge or supplied air respirators when there is a potential for airborne concentrations to exceed occupational exposure limits. Observe respirator assigned protection factors criteria cited in OSHA 29 CFR 1910.134, and the respirator manufacturer for additional guidance on respiratory protection selection. A Self-Contained Breathing Apparatus (SCBA) should be used for fire fighting.
<b>General hygiene considerations</b>	Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes and clothing. Wear suitable gloves and eye/face protection.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Appearance</b>	Liquid
<b>Physical State @20°C</b>	Liquid
<b>Odor</b>	Characteristic petroleum or kerosene-like
<b>Color</b>	Clear to straw
<b>Odor threshold</b>	0.1 - 1 ppm

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>		
<b>Melting point / freezing point</b>	-26 °C / -15 °F	
<b>Boiling range</b>	154 to 372 °C / 309-702 °F	
<b>Flash point</b>	38 °C / 100 °F	
<b>Evaporation rate</b>	No data available	
<b>Flammability (solid, gas)</b>	Not applicable	
<b>Flammability Limit in Air %</b>		
<b>Upper flammability limit:</b>	5.0	
<b>Lower flammability limit:</b>	0.7	
<b>Vapor pressure</b>	< 2 mm Hg @ 20°C	
<b>Vapor density</b>	> 4.5	
<b>Relative density</b>	0.8	
<b>Water solubility</b>	0.0005 g/100 mL	
<b>Solubility in other solvents</b>	No data available	
<b>Partition coefficient</b>	3.3 to 6	
<b>Autoignition temperature</b>	238 °C / 460 °F	
<b>Decomposition temperature</b>	No data available	
<b>Kinematic viscosity</b>	1.6 mm <sup>2</sup> /s	
<b>Dynamic viscosity</b>	No data available	
<b>VOC Content (%)</b>	No data available	
<b>Conductivity</b>	Diesel Fuel Oils at terminal load rack: At least 25 pS/m. Ultra Low Sulfur Diesel (ULSD) without conductivity additive: 0 pS/m to 5 pS/m. ULSD at terminal load rack with conductivity additive: At least 50 pS/m. JP-8 at terminal load rack: 150 pS/m to 600 pS/m.	

## 10. STABILITY AND REACTIVITY

<b>Reactivity</b>	This product is non-reactive under normal conditions.
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Possibility of hazardous reactions</b>	None under normal processing.
<b>Hazardous polymerization</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Heat, flames and sparks. Excessive heat.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	None under normal use conditions.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

<b>Inhalation</b>	May cause irritation of respiratory tract. May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination. Aspiration into lungs can produce severe lung damage.
<b>Skin contact</b>	Irritating to skin. Repeated exposure may cause skin dryness or cracking. May be absorbed through the skin in harmful amounts.
<b>Eye contact</b>	May cause slight eye irritation.
<b>Ingestion</b>	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May be fatal if swallowed and enters airways.

### Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

<b>ATEmix (oral)</b>	>5000 mg/kg
<b>ATEmix (dermal)</b>	>2000 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	>5 mg/l

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Kerosene (petroleum) 8008-20-6	> 5000 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	> 5.28 mg/L ( Rat ) 4 h
Naphthalene 91-20-3	533-710 mg/kg ( Mice )	> 2000 mg/kg ( Rabbit )	> 340 mg/m <sup>3</sup> ( Rat ) 1 h
Ethylbenzene 100-41-4	3500 mg/kg ( Rat )	15400 mg/kg ( Rabbit )	17.4 mg/L ( Rat ) 4 h
1,2,4-Trimethylbenzene 95-63-6	3280 mg/kg ( Rat )	> 3160 mg/kg ( Rabbit )	18 g/m <sup>3</sup> ( Rat ) 4 h

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

#### **Chemical Name** **Kerosene (petroleum)**

Petroleum middle distillates have produced skin tumors in mice after repeated and prolonged skin contact. Additional studies indicated prolonged skin irritation contributes to tumor development. Repeated dermal exposures to test animals at high concentrations resulted in reduced litter size and weight, and increased fetal resorptions at doses toxic to the mother. Inhalations exposure to high concentrations resulted in respiratory tract irritation, lung changes/infiltration/accumulation, and reduction in lung function. Repeated dermal application of petroleum gas oils have resulted in decreased liver, thymus, and spleen weights, and altered bone marrow function. Microscopic alterations included liver hypertrophy and necrosis, decreased hematopoiesis, and lymphocyte depletion. Altered mental state, drowsiness, peripheral motor neuropathy, irreversible brain damage (Petrol Sniffer's Encephalopathy), delirium, seizures, and sudden death have been reported from repeated overexposure to some hydrocarbon solvents, naphthas and gasoline.

The combustion of diesel fuels produces gases including carbon monoxide, carbon dioxide, oxides of nitrogen and/or sulfur, and hydrocarbons that can be irritating and hazardous with overexposure. Long-term occupational overexposure to diesel exhaust and particulate matter has been associated with an increased risk of respiratory disease, including lung cancer. Lifetime animal inhalation studies with pulmonary overloading exposure concentrations of diesel exhaust emissions have produced tumors and other adverse health effects. However, in more recent studies of diesel exhaust emissions, there were no increase in tumor incidence. In fact, a substantial reduction in adverse health effects and significant reductions in the levels of hazardous material emissions were observed. These changes are associated with fuel composition alterations coupled with new technology diesel engines.

**Naphthalene**

Acute (short term) exposure to large amounts of naphthalene may damage or destroy red blood cells, a condition termed hemolytic anemia. Symptoms of hemolytic anemia include fatigue, lack of appetite, restlessness, and pale skin. Acute inhalation or oral exposure to large amounts of naphthalene may also cause nausea, vomiting, diarrhea, blood in the urine, and a yellow color to the skin. Ingestion may result in death. Chronic (long term) exposure in rats and mice can lead to irritation and inflammation of their nose and lungs; nasal hyperplasia and metaplasia in respiratory and olfactory epithelium has been reported in studies in mice. Exposure to high enough levels may have effects on the blood, resulting in chronic hemolytic anemia, and effects on the eyes, resulting in the development of cataracts. Cancer from naphthalene exposure has been observed in animals, but not humans.

**Ethylbenzene**

Lifetime exposure studies of rodents to ethylbenzene reported elevated kidney tumors in male and female rats exposed to the highest concentration tested. Tumors of the lungs were elevated in male mice and in the livers of females exposed at the highest concentration tested. Effects on the liver, kidney, lung, thyroid, and pituitary of these animals as well. Laboratory animal studies (rats) demonstrated hearing loss in combination with exposure to noise.

**1,2,4-Trimethylbenzene**

1,2,4-Trimethylbenzene may be fatal if it is swallowed and enters airways. Overexposure through inhalation and ingestion can cause confusion, dizziness, drowsiness, headache, and vomiting, cough, and sore throat. Short-term exposure to high enough levels through inhalation may cause respiratory irritation, and long-term overexposure may cause asthmatic bronchitis. Contact with skin can cause irritation, redness and dry skin. Contact with eyes can cause serious eye irritation, redness, and pain.

**Information on toxicological effects****Symptoms**

Irritation. Redness. Itching. Inflammation. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. Aspiration Hazard. May cause coughing, chest pains, shortness of breath, pulmonary edema and/or chemical pneumonitis. Repeated exposure may cause skin dryness or cracking.

**Health hazard and classification information**

<b>Acute Toxicity</b>	Not classified
<b>Skin Corrosion/Irritation</b>	Causes skin irritation.
<b>Serious eye damage/eye irritation</b>	Not classified.
<b>Sensitization</b>	Not classified.
<b>Germ cell mutagenicity</b>	Not classified.
<b>Carcinogenicity</b>	Suspected of causing cancer.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Kerosene (petroleum) 8008-20-6	A3 Confirmed Animal Carcinogen	Group 3 Not Classifiable	-	-
Naphthalene 91-20-3	A3 Confirmed Animal Carcinogen	Group 2B Possibly Carcinogenic to Humans	Reasonably Anticipated Carcinogen	-
Ethylbenzene 100-41-4	A3 Confirmed Animal Carcinogen	Group 2B Possibly Carcinogenic to Humans	-	-

**Reproductive toxicity** Not classified.



**Target Organ Systemic Toxicant - Single Exposure** May cause respiratory irritation. May cause drowsiness or dizziness by inhalation.

**Target Organ Systemic Toxicant - Repeated Exposure** Not classified.

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

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity** Toxic to aquatic life with long lasting effects.

Chemical Name	Fish	Crustacea	Algae/aquatic plants
Kerosene (petroleum) 8008-20-6	96-hr LL50 = 18-25 mg/l Fish	48-hr EL50 = 1.4-21 mg/l Invertebrates	72-hr EL50 = 5.0-11 mg/L Algae
Naphthalene 91-20-3	96-hr LC = 0.91-2.82 mg/l Rainbow trout 96-hr LC50 = 1.99 mg/l Fathead minnow	48-hr LC50 = 1.6 mg/l Daphnia	-
Ethylbenzene 100-41-4	4.2: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 7.55 - 11: 96 h Pimephales promelas mg/L LC50 flow-through 9.6: 96 h Poecilia reticulata mg/L LC50 static 9.1 - 15.6: 96 h Pimephales promelas mg/L LC50 static 11.0 - 18.0: 96 h Oncorhynchus mykiss mg/L LC50 static 32: 96 h Lepomis macrochirus mg/L LC50 static	1.8 - 2.4: 48 h Daphnia magna mg/L EC50	438: 96 h Pseudokirchneriella subcapitata mg/L EC50 4.6: 72 h Pseudokirchneriella subcapitata mg/L EC50 1.7 - 7.6: 96 h Pseudokirchneriella subcapitata mg/L EC50 static 2.6 - 11.3: 72 h Pseudokirchneriella subcapitata mg/L EC50 static
1,2,4-Trimethylbenzene 95-63-6	7.19 - 8.28: 96 h Pimephales promelas mg/L LC50 flow-through	6.14: 48 h Daphnia magna mg/L EC50	-

**Persistence and degradability** Expected to be inherently biodegradable.

**Bioaccumulation** Bioaccumulative potential.

### Component Information

Chemical Name	Partition coefficient
Naphthalene 91-20-3	3.6
Ethylbenzene 100-41-4	3.2
1,2,4-Trimethylbenzene 95-63-6	3.63

**Mobility** No information available.

**Other adverse effects** No information available.

**Additional Ecological Information** Release of this product should be prevented from contaminating soil and water and from entering drainage and sewer systems. U.S.A. regulations require reporting spills of this material that could reach any surface waters. The toll free number to the U.S. Coast Guard National Response Center is (800) 424-8802

## 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

**Waste from residues/unused products** Handle in accordance with applicable local, state, and federal regulations. The user is responsible for determining if any discarded material is hazardous waste (40 CFR 262.11). Dispose of in accordance with federal, state and local regulations.

**Contaminated packaging** Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers. Do not reuse empty containers. Dispose of in accordance with federal, state and local regulations.

**California Hazardous Waste Status** This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
Naphthalene 91-20-3	Toxic
Ethylbenzene 100-41-4	Toxic Ignitable

### 14. TRANSPORT INFORMATION

**DOT**

**UN/ID no** UN1863  
**Proper Shipping Name** FUEL, AVIATION, TURBINE ENGINE  
**Hazard Class** 3  
**Packing group** III  
**ERG Number** 128

**IATA**

**UN/ID no** UN1863  
**Proper Shipping Name** FUEL, AVIATION, TURBINE ENGINE  
**Hazard Class** 3  
**Packing group** III  
**ERG Code** 3L

**IMDG**

**UN/ID no** UN1863  
**Proper Shipping Name** FUEL, AVIATION, TURBINE ENGINE  
**Hazard Class** 3  
**Packing group** III  
**EmS No.** F-E, S-E  
**Marine pollutant** Yes

### 15. REGULATORY INFORMATION

This product and/or its components are either listed on the TSCA inventory or are exempt from listing/notification.

**International Inventories**

**TSCA** Listed  
**DSL/NDSL** Listed  
**ENCS** Not Listed  
**IECSC** Listed  
**KECL** Listed  
**PICCS** Listed  
**AICS** Listed

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**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**

**SARA Section 302**

This product may contain component(s) included on EPA's Extremely Hazardous Substance (EHS) list

**SARA Section 304**

This product may contain component(s) identified either as an EHS or CERCLA hazardous substance which in case of spill or release may be subject to SARA reporting requirements.

**SARA Section 311/312 Hazard Categories**

Flammable  
Hazard Not Otherwise Classified - Physical  
Skin Corrosion/Irritation  
Carcinogenicity  
Specific Target Organ Toxicity  
Aspiration Hazard

**SARA Section 313**

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

Chemical Name	SARA 313 - Threshold Values %
Naphthalene 91-20-3	0.1
1,2,4-Trimethylbenzene 95-63-6	1.0
Ethylbenzene 100-41-4	0.1

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Naphthalene 91-20-3	100 lb	X	X	X
Ethylbenzene 100-41-4	1000 lb	X	X	X

**CERCLA**

The CERCLA definition of hazardous substances contains a "petroleum exclusion" clause which exempts crude oil, fractions of crude oil, and products (both finished and intermediate) from the crude oil refining process and any indigenous components of such from the CERCLA Section 103 reporting requirements. However, other federal reporting requirements, including SARA Section 304, as well as the Clean Water Act may still apply.

**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

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

## US State Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Kerosene (petroleum) 8008-20-6	X	X	X
Naphthalene 91-20-3	X	X	X
1,2,4-Trimethylbenzene 95-63-6	X	X	X
Ethylbenzene 100-41-4	X	X	X

### 16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

**Prepared By** Toxicology & Product Safety.

**Revision Date** 04-Dec-2017

**Revision Note** No information available.

#### 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.

40, 41, 42, 43, 139, 141, 263, 1117, 1333, 1450, 45, 1132, 1227, 1278

**End of Safety Data Sheet**