

# 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, APPC463, RS203

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

**Manufacturer**  
Tesoro Refining & Marketing Co.  
19100 Ridgewood Parkway  
San Antonio, TX 78259

**Emergency Telephone** Chemtrec: 1-800-424-9300  
Tesoro Call Center: 1-877-783-7676

**E-mail address** ProductStewardship@TSOCORP.com

## 2. HAZARDS IDENTIFICATION

### Classification

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

Flammable liquids	Category 3
Acute dermal toxicity	Category 2
Acute Inhalation Toxicity - Dusts and Mists	Category 4
Carcinogenicity	Category 1B
Specific target organ toxicity (repeated exposure)	Category 2
Chronic Aquatic Toxicity	Category 2
Aspiration toxicity	Category 1

### Label elements

#### **Danger**

Flammable liquid and vapor  
Harmful in contact with skin  
Harmful if inhaled  
May cause cancer  
May cause damage to organs through prolonged or repeated exposure  
Toxic to aquatic life with long lasting effects  
May be fatal if swallowed and enters airways



**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
- Wear protective gloves/protective clothing/eye protection/face protection
- 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/or bond container and receiving equipment
- Use explosion-proof electrical/ ventilating / lighting / equipment
- Use only non-sparking tools
- Take precautionary measures against static discharge

**Precautionary Statements - Response**

- IF exposed or concerned: Get medical advice/attention
- Call a POISON CENTER or doctor if you feel unwell
- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower
- Wash contaminated clothing before reuse
- IF INHALED: Remove person to fresh air and keep comfortable for breathing
- 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

**Precautionary Statements - Storage**

Store in a well-ventilated place. Keep cool

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Not applicable

**Other Information**

May be harmful if swallowed. Causes mild skin irritation. Toxic to aquatic life.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS-No	Percent
Kerosene (petroleum)	8008-20-6	0-100
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**

<b>General advice</b>	Show this safety data sheet to the doctor in attendance. Remove from exposure, lie down. In case of accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt, seek medical advice. Never give anything by mouth to an unconscious person. Take off all contaminated clothing immediately and thoroughly wash material from skin. Immediate medical attention is required.
<b>Inhalation</b>	Aspiration into lungs can produce severe lung damage. If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult, (trained personnel should) give oxygen. Get immediate medical advice/attention. Delayed pulmonary edema may occur.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.
<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. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. 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**

**Symptoms** Difficulty in breathing. Coughing and/ or wheezing. Dizziness.

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

**Note to physicians** 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.

**5. FIRE-FIGHTING MEASURES**

<b>Small Fire</b>	Any extinguisher suitable for Class B fires, dry chemical, CO2, foam (AFFF/ATC), or water spray can be used.
<b>Large Fire</b>	Water spray, fog or alcohol-resistant foam. CAUTION: Use of water spray when fighting fire may be inefficient. Cool containers with flooding quantities of water until well after fire is out.
<b>Unsuitable extinguishing media</b>	CAUTION: Use of water spray when fighting fire may be inefficient.
<b>Specific hazards arising from the chemical</b>	Vapors may accumulate in confined areas (basement, tanks, hopper/tank cars, etc.). Vapors may form explosive mixture with air. Vapors may travel to areas away from work site before igniting/flashing back to vapor source. May accumulate electrostatic charge and ignite or explode.
<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.

**Further information**

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                      **Physical and chemical properties** -

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

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

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

**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.

**Prevention of secondary hazards**                      Clean contaminated objects and areas thoroughly observing environmental regulations.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on safe handling**                      Use personal protection equipment. Avoid contact with skin and eyes. Avoid breathing vapors or mists. 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. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product.

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.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Chemical Name	ACGIH TLV	OSHA PEL
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> (vacated) TWA: 10 ppm (vacated) TWA: 50 mg/m <sup>3</sup> (vacated) STEL: 15 ppm (vacated) STEL: 75 mg/m <sup>3</sup>
Ethylbenzene 100-41-4	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m <sup>3</sup> (vacated) TWA: 100 ppm (vacated) TWA: 435 mg/m <sup>3</sup> (vacated) STEL: 125 ppm (vacated) STEL: 545 mg/m <sup>3</sup>

S\* - Potential exposure by cutaneous route

NOTE: Limits shown for guidance only. For additional information, OSHA's 1989 air contaminants standard exposure limits provided even though the limits were vacated in 1992. State, local or other agencies or advisory groups may have established more stringent limits. Follow applicable regulations.

**Appropriate engineering controls**

**Engineering controls**

- Showers
- Eyewash stations
- Ventilation systems.

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

<b>Eye/face protection</b>	Tight sealing safety goggles.
<b>Hand Protection</b>	Wear suitable gloves. Impervious gloves.
<b>Skin and body protection</b>	Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.
<b>Respiratory protection</b>	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Use a NIOSH approved respirator when there is a potential for airborne concentrations to exceed occupational exposure limits. Refer to OSHA 29 CFR 1910.134, ANSI Z88.2, NIOSH Respirator Decision Logic, and the respirator manufacturer for additional guidance on respiratory protection selection. A Self-Contained Breathing Apparatus (SCBA) should be used for fire fighting. Use a NIOSH approved positive-pressure supplied air respirator if there is a potential for uncontrolled release, exposure levels are unknown, in oxygen deficient (less than 19.5% oxygen), or any other circumstance where an air-purifying respirator may not provide adequate protection.
<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 or clothing. Wear suitable gloves and eye/face protection.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical State @20°C</b>	Liquid
<b>Appearance</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>	Not applicable	
<b>Melting point / freezing point</b>	-26 °C / -15 °F	
<b>Boiling range</b>	154 - 154 to 372 °C	
<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>	< 0.267	
<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>Explosive properties</b>	No data available	
<b>Oxidizing properties</b>	No data available	
<b>Minimum Ignition Energy (mJ)</b>	No data available	
<b>K<sub>st</sub> (bar.m/s)</b>	No data available	
<b>Softening point</b>	No data available	
<b>VOC Content (%)</b>	No data available	
<b>Density</b>	No data available	
<b>Bulk density</b>	Not applicable	
<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>Conditions to avoid</b>	Heat, flames and sparks. Excessive heat.
<b>Incompatible materials</b>	Oxidizing or reducing agents. Acids. Alkali.
<b>Hazardous decomposition products</b>	None under normal use conditions.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

<b>Inhalation</b>	Aspiration into lungs can produce severe lung damage. May cause pulmonary edema. Pulmonary edema can be fatal. May cause irritation of respiratory tract. Harmful by inhalation. (based on components).
<b>Eye contact</b>	May cause irritation.
<b>Skin contact</b>	Repeated exposure may cause skin dryness or cracking. May be absorbed through the skin in harmful amounts. Harmful in contact with skin.
<b>Ingestion</b>	Specific test data for the substance or mixture is not available. Potential for aspiration if swallowed. May cause lung damage if swallowed. Aspiration may cause pulmonary edema and pneumonitis. May be fatal if swallowed and enters airways.

### Information on toxicological effects

**Symptoms** Difficulty in breathing. Coughing and/ or wheezing. Dizziness.

### Numerical measures of toxicity

#### Acute toxicity

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

<b>ATEmix (oral)</b>	3,764.00 mg/kg
<b>ATEmix (dermal)</b>	1,987.00 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	2.70 mg/l

Chemical Name	Oral LD50	LD50/dermal/rat - NO UNITS (Wizards mg/kg)	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	= 1110 mg/kg ( Rat ) = 490 mg/kg ( Rat )	= 1120 mg/kg ( Rabbit ) > 20 g/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**

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**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. IARC has classified naphthalene as possibly carcinogenic to humans (Group 2B), and the ECHA C&L Inventory reports that naphthalene is suspected of causing cancer (Carc. 2).

**Ethylbenzene**

Ethylbenzene may be fatal if it is swallowed and enters the airways. Short term (acute) exposure to ethylbenzene can cause eye, skin, and throat irritation. It may have effects on the central nervous system including dizziness, and at very high exposure, lowering on consciousness. Long-term exposures orally and by inhalation have been shown to cause damage to the inner ear and hearing in animals. Long term or repeated exposure to high enough levels of ethylbenzene may have effects on the kidneys and liver, resulting in impaired functions, and repeated contact with skin may cause dryness and cracking. Animal studies indicate some evidence of adverse effects on the liver, kidney, thyroid, and pituitary gland. In a 2-year inhalation study in mice and rats, the animals were exposed to 0, 75, 250, and 750 ppm ethylbenzene 6 hours/day, 5 days/week. Renal effects were observed in male rats (renal tubule hyperplasia) and female rats (renal tubule adenoma and adenoma or carcinoma) exposed to 750 ppm. The incidence of adenoma in the testes of males was significantly greater than in the control group and exceeded the historical control range for inhalation studies. The incidences of alveolar/bronchiolar adenoma was increased in males and the incidence of hepatocellular adenoma was increased in females. IARC has classified ethylbenzene as possibly carcinogenic to humans (Group 2B). Studies do not provide conclusive evidence of reproductive effects. In one study, developmental effects were reported in animals but only at very high doses (≥1000 ppm) that are likely to be toxic to the mother. The relevance of these findings to humans is not clear at this time.

**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.

**Health hazard and classification information**

**Skin Corrosion/Irritation Category** No information available.

**Serious eye damage/eye irritation** No information available.

No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** Classification based on data available for ingredients. Contains a known or suspected carcinogen.

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	Group 3	-	-
Naphthalene 91-20-3	A3	Group 2B	Reasonably Anticipated	X
Ethylbenzene 100-41-4	A3	Group 2B	-	X



<b>Reproductive toxicity</b>	No information available.
<b>Target Organ Systemic Toxicant - Single Exposure</b>	No information available.
<b>Target Organ Systemic Toxicant - Repeated Exposure</b>	Causes damage to organs through prolonged or repeated exposure.
<b>Target organ effects</b>	liver, kidney, Respiratory system, Eyes, Skin, Central nervous system, blood.
<b>Aspiration hazard</b>	May be fatal if swallowed and enters airways.

## 12. ECOLOGICAL INFORMATION

**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

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

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Naphthalene 91-20-3	0.4: 72 h Skeletonema costatum mg/L EC50	5.74 - 6.44: 96 h Pimephales promelas mg/L LC50 flow-through 31.0265: 96 h Lepomis macrochirus mg/L LC50 static 0.91 - 2.82: 96 h Oncorhynchus mykiss mg/L LC50 static 1.6: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 1.99: 96 h Pimephales promelas mg/L LC50 static	-	1.96: 48 h Daphnia magna mg/L EC50 Flow through 1.09 - 3.4: 48 h Daphnia magna mg/L EC50 Static 2.16: 48 h Daphnia magna mg/L LC50
Ethylbenzene 100-41-4	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	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
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** No information available.

**Bioaccumulation** There is no data for this product.

### 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

**Other adverse effects** No information available.

### 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**

**Waste from residues/unused products** Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

**US EPA Waste Number** D001, U165

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

Chemical Name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Naphthalene 91-20-3	-	-	Toxic waste waste number F025 Waste description: Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution.	-

**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
Reportable Quantity (RQ)	(Naphthalene: RQ (kg)= 45.40)
Special Provisions	144, B1, IB3, T2, TP1
Description	UN1863, FUEL, AVIATION, TURBINE ENGINE, 3, III
Emergency Response Guide Number	128

### TDG

UN/ID no	UN1863
Proper Shipping Name	FUEL, AVIATION, TURBINE ENGINE
Hazard Class	3
Packing group	III
Description	UN1863, FUEL, AVIATION, TURBINE ENGINE, 3, III

### MEX

UN/ID no	UN1863
Proper Shipping Name	FUEL, AVIATION, TURBINE ENGINE
Hazard Class	3
Special Provisions	223
Packing group	III
Description	UN1863, FUEL, AVIATION, TURBINE ENGINE, 3, III

### IATA

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

### IMDG

UN/ID no	UN1863
Proper Shipping Name	FUEL, AVIATION, TURBINE ENGINE
Hazard Class	3
Packing group	III
EmS No.	F-E, S-E
Special Provisions	223, 363
Description	UN1863, FUEL, AVIATION, TURBINE ENGINE, 3, III, (38°C C.C.), Marine pollutant

## 15. REGULATORY INFORMATION

### 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 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazard Categories**

<b>Acute health hazard</b>	Yes
<b>Chronic Health Hazard</b>	Yes
<b>Fire hazard</b>	Yes
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	No

**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**

**Revision Date** 04-Dec-2017

**Revision Note** No information available.

**Disclaimer**

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

**End of Safety Data Sheet**