



# **PIPESTONE PIPELINE REROUTE PROJECT**

DOCKET NUMBER: PPL-23-109

APPLICANT: MAGELLAN PIPELINE COMPANY L.P.

**VOLUME II - APPENDIX H: MATERIAL DATA SAFETY SHEETS**

## 1. Identification

**Product identifier** 91 CF REC  
**Other means of identification** None.  
**Recommended use** Motor Fuel  
**Recommended restrictions** None known.

### Manufacturer/Importer/Supplier/Distributor information

#### Manufacturer

**Company name** Philadelphia Energy Solutions  
**Address** 3144 W. Passyunk Ave  
 Philadelphia, Pennsylvania, 19145  
**E-mail** msds@PES-Companies.com  
**Emergency phone number**  
**24 Hours Information** (215) 339-5400  
**Product Safety Information** (215) 339-2000

## 2. Hazard(s) identification

<b>Physical hazards</b>	Flammable liquids	Category 2
<b>Health hazards</b>	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Germ cell mutagenicity	Category 1B
	Carcinogenicity	Category 1B
	Reproductive toxicity	Category 2
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
<b>Environmental hazards</b>	Aspiration hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 2
<b>OSHA defined hazards</b>	Not classified.	

#### Label elements



**Signal word** Danger  
**Hazard statement** Highly flammable liquid and vapor. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. May cause genetic defects. May cause cancer. Suspected of damaging fertility or the unborn child. Toxic to aquatic life with long lasting effects.

#### Precautionary statement

**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/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 mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

<b>Response</b>	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish. Collect spillage.
<b>Storage</b>	Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	Static Accumulating Liquid. Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	CAS number	%
Light Petroleum Distillate	8006-61-9	100

#### Constituents

Chemical name	CAS number	%
Toluene	108-88-3	0 - 30
Xylene	1330-20-7	0 - 25
Cyclohexane	110-82-7	0 - 9
n-Hexane	110-54-3	0 - 5
Ethylbenzene	100-41-4	0 - 5
Naphthalene	91-20-3	0 - 5
1,2,4-Trimethylbenzene	95-63-6	0 - 5
Benzene	71-43-2	0.1 - 4.9
Cumene	98-82-8	0 - 1

**Composition comments** Occupational Exposure Limits for constituents are listed in Section 8.

### 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately.
<b>Most important symptoms/effects, acute and delayed</b>	Convulsions. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.

<b>Specific hazards arising from the chemical</b>	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	Highly flammable liquid and vapor.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures** Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**Methods and materials for containment and cleaning up** Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent product from entering drains. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

**Environmental precautions** Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

## 7. Handling and storage

**Precautions for safe handling** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities** Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Constituents	Type	Value
Benzene (CAS 71-43-2)	STEL	5 ppm
	TWA	1 ppm

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Constituents	Type	Value
Cumene (CAS 98-82-8)	PEL	245 mg/m3
		50 ppm
Xylene (CAS 1330-20-7)	PEL	435 mg/m3
		100 ppm

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Constituents	Type	Value
n-Hexane (CAS 110-54-3)	PEL	1800 mg/m <sup>3</sup> 500 ppm
Ethylbenzene (CAS 100-41-4)	PEL	435 mg/m <sup>3</sup> 100 ppm
Naphthalene (CAS 91-20-3)	PEL	50 mg/m <sup>3</sup> 10 ppm
Cyclohexane (CAS 110-82-7)	PEL	1050 mg/m <sup>3</sup> 300 ppm

**US. OSHA Table Z-2 (29 CFR 1910.1000)**

Constituents	Type	Value
Toluene (CAS 108-88-3)	Ceiling TWA	300 ppm 200 ppm
Benzene (CAS 71-43-2)	Ceiling TWA	25 ppm 10 ppm

**US. ACGIH Threshold Limit Values**

Constituents	Type	Value
Cumene (CAS 98-82-8)	TWA	50 ppm
Xylene (CAS 1330-20-7)	STEL TWA	150 ppm 100 ppm
Toluene (CAS 108-88-3)	TWA	20 ppm
Benzene (CAS 71-43-2)	STEL TWA	2.5 ppm 0.5 ppm
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	25 ppm
n-Hexane (CAS 110-54-3)	TWA	50 ppm
Ethylbenzene (CAS 100-41-4)	TWA	20 ppm
Naphthalene (CAS 91-20-3)	TWA	10 ppm
Cyclohexane (CAS 110-82-7)	TWA	100 ppm

**US. NIOSH: Pocket Guide to Chemical Hazards**

Constituents	Type	Value
Cumene (CAS 98-82-8)	TWA	245 mg/m <sup>3</sup> 50 ppm
Xylene (CAS 1330-20-7)	STEL TWA	655 mg/m <sup>3</sup> 150 ppm 435 mg/m <sup>3</sup> 100 ppm
Toluene (CAS 108-88-3)	STEL TWA	560 mg/m <sup>3</sup> 150 ppm 375 mg/m <sup>3</sup> 100 ppm
Benzene (CAS 71-43-2)	STEL TWA	1 ppm 0.1 ppm
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	125 mg/m <sup>3</sup> 25 ppm
n-Hexane (CAS 110-54-3)	TWA	180 mg/m <sup>3</sup> 50 ppm

**US. NIOSH: Pocket Guide to Chemical Hazards**

Constituents	Type	Value
Ethylbenzene (CAS 100-41-4)	STEL	545 mg/m3
	TWA	125 ppm
		435 mg/m3
Naphthalene (CAS 91-20-3)	STEL	100 ppm
	TWA	75 mg/m3
		15 ppm
Cyclohexane (CAS 110-82-7)	TWA	50 mg/m3
		10 ppm
		1050 mg/m3
		300 ppm

**Biological limit values****ACGIH Biological Exposure Indices**

Constituents	Value	Determinant	Specimen	Sampling Time
Xylene (CAS 1330-20-7)	1.5 g/g	Methylhippuric acids	Creatinine in urine	*
Toluene (CAS 108-88-3)	0.3 mg/g	o-Cresol, with hydrolysis	Creatinine in urine	*
		Toluene	Urine	*
		Toluene	Blood	*
Benzene (CAS 71-43-2)	25 µg/g	S-Phenylmercapturic acid	Creatinine in urine	*
n-Hexane (CAS 110-54-3)	0.4 mg/l	2,5-Hexanedion, without hydrolysis	Urine	*
Ethylbenzene (CAS 100-41-4)	0.15 g/g	Sum of mandelic acid and phenylglyoxylic acid	Creatinine in urine	*

\* - For sampling details, please see the source document.

**Exposure guidelines****US - California OELs: Skin designation**

Benzene (CAS 71-43-2)	Can be absorbed through the skin.
Cumene (CAS 98-82-8)	Can be absorbed through the skin.
n-Hexane (CAS 110-54-3)	Can be absorbed through the skin.
Toluene (CAS 108-88-3)	Can be absorbed through the skin.

**US - Minnesota Haz Subs: Skin designation applies**

Cumene (CAS 98-82-8)	Skin designation applies.
Toluene (CAS 108-88-3)	Skin designation applies.

**US - Tennessee OELs: Skin designation**

Cumene (CAS 98-82-8)	Can be absorbed through the skin.
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**US ACGIH Threshold Limit Values: Skin designation**

Benzene (CAS 71-43-2)	Can be absorbed through the skin.
Naphthalene (CAS 91-20-3)	Can be absorbed through the skin.
n-Hexane (CAS 110-54-3)	Can be absorbed through the skin.

**US. NIOSH: Pocket Guide to Chemical Hazards**

Cumene (CAS 98-82-8)	Can be absorbed through the skin.
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**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Cumene (CAS 98-82-8)	Can be absorbed through the skin.
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**Appropriate engineering controls**

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

## Individual protection measures, such as personal protective equipment

<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles).
<b>Skin protection</b>	
<b>Hand protection</b>	Wear appropriate chemical resistant gloves.
<b>Other</b>	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
<b>Respiratory protection</b>	Chemical respirator with organic vapor cartridge and full facepiece.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Clear.

**Odor** Gasoline-like.

**Odor threshold** < 1 ppm

**pH** Not available.

**Melting point/freezing point** Not available.

**Initial boiling point and boiling range** 100 - 430 °F (37.78 - 221.11 °C)

**Flash point** -40.0 °F (-40.0 °C)

**Evaporation rate** Not available.

**Flammability (solid, gas)** Not available.

### Upper/lower flammability or explosive limits

**Explosive limit - lower (%)** 1.5 %

**Explosive limit - upper (%)** 7.6 %

**Vapor pressure** 325 - 525 mm Hg at 20° C

**Vapor density** Not available.

**Relative density** 0.74

### Solubility(ies)

**Solubility (water)** Nil to 15%

**Partition coefficient (n-octanol/water)** Not available.

**Auto-ignition temperature** 536 °F (280 °C)

**Decomposition temperature** Not available.

**Viscosity** Not available.

## 10. Stability and reactivity

**Reactivity** The product is stable and non-reactive under normal conditions of use, storage and transport.

**Chemical stability** Material is stable under normal conditions.

**Possibility of hazardous reactions** No dangerous reaction known under conditions of normal use.

**Conditions to avoid** Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.

**Incompatible materials** Strong oxidizing agents. Alkaline materials. Halogens. Halogenated compounds.

**Hazardous decomposition products** Carbon oxides.

## 11. Toxicological information

### Information on likely routes of exposure

**Inhalation** May cause drowsiness and dizziness. Headache. Nausea, vomiting.

**Skin contact** Causes skin irritation.

**Eye contact** Causes serious eye irritation.

**Ingestion** Expected to be a low ingestion hazard.

**Symptoms related to the physical, chemical and toxicological characteristics** Convulsions. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

**Information on toxicological effects**

**Acute toxicity** Narcotic effects.

**Toxicological data**

<b>Constituents</b>	<b>Species</b>	<b>Test Results</b>
Cumene (CAS 98-82-8)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 3160 mg/kg, 24 Hours
<i>Inhalation</i>		
LC50	Rat	8000 ppm, 4 Hours
<i>Oral</i>		
LD50	Rat	2910 mg/kg
Xylene (CAS 1330-20-7)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	12126 mg/kg, 24 Hours
<i>Inhalation</i>		
LC50	Rat	6350 ppm, 4 Hours
<i>Oral</i>		
LD50	Rat	3523 mg/kg
Toluene (CAS 108-88-3)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	14.1 ml/kg
<i>Inhalation</i>		
LC50	Rat	49000 mg/m <sup>3</sup> , 4 Hours
<i>Oral</i>		
LD50	Rat	636 mg/kg
Benzene (CAS 71-43-2)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	930 mg/kg
1,2,4-Trimethylbenzene (CAS 95-63-6)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 3160 mg/kg
<i>Inhalation</i>		
LC50	Rat	18000 mg/m <sup>3</sup> , 4 hours
Ethylbenzene (CAS 100-41-4)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	15400 mg/kg
<i>Inhalation</i>		
LC50	Rat	17.4 mg/m <sup>3</sup> , 4 Hours



Constituents	Species	Test Results
Oral LD50	Rat	35000 - 47000 mg/kg
Naphthalene (CAS 91-20-3)		
<b>Acute</b>		
Dermal LD50	Rabbit	> 2 g/kg
Oral LD50	Rat	490 mg/kg
Cyclohexane (CAS 110-82-7)		
<b>Acute</b>		
Oral LD50	Rat	12705 mg/kg
<b>Skin corrosion/irritation</b>	Causes skin irritation.	
<b>Serious eye damage/eye irritation</b>	Causes serious eye irritation.	
<b>Respiratory or skin sensitization</b>		
<b>Respiratory sensitization</b>	Not a respiratory sensitizer.	
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.	
<b>Germ cell mutagenicity</b>	May cause genetic defects.	
<b>Carcinogenicity</b>	May cause cancer.	
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>		
Benzene (CAS 71-43-2)	1 Carcinogenic to humans.	
Cumene (CAS 98-82-8)	2B Possibly carcinogenic to humans.	
Ethylbenzene (CAS 100-41-4)	2B Possibly carcinogenic to humans.	
Light Petroleum Distillate (CAS 8006-61-9)	2B Possibly carcinogenic to humans.	
Naphthalene (CAS 91-20-3)	2B Possibly carcinogenic to humans.	
Toluene (CAS 108-88-3)	3 Not classifiable as to carcinogenicity to humans.	
Xylene (CAS 1330-20-7)	3 Not classifiable as to carcinogenicity to humans.	
<b>NTP Report on Carcinogens</b>		
Benzene (CAS 71-43-2)	Known To Be Human Carcinogen.	
Naphthalene (CAS 91-20-3)	Reasonably Anticipated to be a Human Carcinogen.	
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>		
Benzene (CAS 71-43-2)	Cancer	
<b>Reproductive toxicity</b>	Suspected of damaging fertility or the unborn child.	
<b>Specific target organ toxicity - single exposure</b>	May cause drowsiness and dizziness.	
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.	
<b>Aspiration hazard</b>	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.	
<b>Chronic effects</b>	Prolonged exposure may cause chronic effects.	

## 12. Ecological information

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

Constituents	Species	Test Results
Cumene (CAS 98-82-8)		
<b>Aquatic</b>		
Fish	LC50	Rainbow trout, donaldson trout (Oncorhynchus mykiss)
		2.7 mg/l, 96 hours
Toluene (CAS 108-88-3)		
<b>Aquatic</b>		
Crustacea	EC50	Water flea (Daphnia magna)
		5.46 - 9.83 mg/l, 48 hours
Fish	LC50	Pink salmon (Oncorhynchus gorbuscha)
		6.86 - 8.48 mg/l, 96 hours

Constituents	Species	Test Results
1,2,4-Trimethylbenzene (CAS 95-63-6)		
<b>Aquatic</b>		
Fish	LC50	Fathead minnow ( <i>Pimephales promelas</i> ) 7.19 - 8.28 mg/l, 96 hours
Ethylbenzene (CAS 100-41-4)		
<b>Aquatic</b>		
Crustacea	EC50	Daphnia 1.81 mg/l, 48 hours
Fish	LC50	Bluegill ( <i>Lepomis macrochirus</i> ) 32 - 88 mg/l, 96 hours
		Fathead minnow ( <i>Pimephales promelas</i> ) 12.1 mg/l, 96 hours
Naphthalene (CAS 91-20-3)		
<b>Aquatic</b>		
Crustacea	EC50	Water flea ( <i>Daphnia magna</i> ) 1.09 - 3.4 mg/l, 48 hours
Fish	LC50	Pink salmon ( <i>Oncorhynchus gorbuscha</i> ) 0.95 - 1.62 mg/l, 96 hours
Cyclohexane (CAS 110-82-7)		
<b>Aquatic</b>		
Fish	LC50	Fathead minnow ( <i>Pimephales promelas</i> ) 3.961 - 5.181 mg/l, 96 hours

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential** No data available.

**Mobility in soil** Expected to be mobile in soil.

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** D001: Waste Flammable material with a flash point <140 F

#### US RCRA Hazardous Waste U List: Reference

Benzene (CAS 71-43-2)	U019
Cumene (CAS 98-82-8)	U055
Cyclohexane (CAS 110-82-7)	U056
Naphthalene (CAS 91-20-3)	U165
Toluene (CAS 108-88-3)	U220
Xylene (CAS 1330-20-7)	U239

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

### 14. Transport information

#### DOT

<b>UN number</b>	UN1203
<b>UN proper shipping name</b>	Gasoline
<b>Transport hazard class(es)</b>	
<b>Class</b>	3
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	3
<b>Packing group</b>	II
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Special provisions</b>	144, 177, B1, B33, IB2, T4, TP1
<b>Packaging exceptions</b>	150
<b>Packaging non bulk</b>	202
<b>Packaging bulk</b>	242

**IATA**

**UN number** UN1203  
**UN proper shipping name** Petrol  
**Transport hazard class(es)**  
    **Class** 3  
    **Subsidiary risk** -  
**Packing group** II  
**Environmental hazards** Yes  
**ERG Code** 3H  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**IMDG**

**UN number** UN1203  
**UN proper shipping name** GASOLINE  
**Transport hazard class(es)**  
    **Class** 3  
    **Subsidiary risk** -  
**Packing group** II  
**Environmental hazards**  
    **Marine pollutant** Yes  
**EmS** F-E, S-E  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not established.

**15. Regulatory information**

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
 All components are on the U.S. EPA TSCA Inventory List.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Benzene (CAS 71-43-2)	Cancer
	Central nervous system
	Blood
	Aspiration
	Skin
	Eye
	respiratory tract irritation
	Flammability

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Benzene (CAS 71-43-2)	LISTED
Cumene (CAS 98-82-8)	LISTED
Cyclohexane (CAS 110-82-7)	LISTED
Ethylbenzene (CAS 100-41-4)	LISTED
Light Petroleum Distillate (CAS 8006-61-9)	LISTED
Naphthalene (CAS 91-20-3)	LISTED
n-Hexane (CAS 110-54-3)	LISTED
Toluene (CAS 108-88-3)	LISTED
Xylene (CAS 1330-20-7)	LISTED

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - Yes  
 Delayed Hazard - Yes  
 Fire Hazard - Yes  
 Pressure Hazard - No  
 Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

SARA 311/312 Hazardous chemical Yes

**SARA 313 (TRI reporting)**

<b>Chemical name</b>	<b>CAS number</b>	<b>% by wt.</b>
Xylene	1330-20-7	0 - 25
Toluene	108-88-3	0 - 30
Cyclohexane	110-82-7	0 - 9
Ethylbenzene	100-41-4	0 - 5
n-Hexane	110-54-3	0 - 5
Naphthalene	91-20-3	0 - 5
1,2,4-Trimethylbenzene	95-63-6	0 - 5
Benzene	71-43-2	0.1 - 4.9
Cumene	98-82-8	0 - 1

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Benzene (CAS 71-43-2)  
Cumene (CAS 98-82-8)  
Ethylbenzene (CAS 100-41-4)  
Naphthalene (CAS 91-20-3)  
n-Hexane (CAS 110-54-3)  
Toluene (CAS 108-88-3)  
Xylene (CAS 1330-20-7)

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number**

Toluene (CAS 108-88-3) 6594

**Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**

Toluene (CAS 108-88-3) 35 %WV

**DEA Exempt Chemical Mixtures Code Number**

Toluene (CAS 108-88-3) 594

**US state regulations**

**US. Massachusetts RTK - Substance List**

1,2,4-Trimethylbenzene (CAS 95-63-6)  
Benzene (CAS 71-43-2)  
Cumene (CAS 98-82-8)  
Cyclohexane (CAS 110-82-7)  
Ethylbenzene (CAS 100-41-4)  
Light Petroleum Distillate (CAS 8006-61-9)  
Naphthalene (CAS 91-20-3)  
n-Hexane (CAS 110-54-3)  
Toluene (CAS 108-88-3)  
Xylene (CAS 1330-20-7)

**US. New Jersey Worker and Community Right-to-Know Act**

1,2,4-Trimethylbenzene (CAS 95-63-6)  
Benzene (CAS 71-43-2)  
Cumene (CAS 98-82-8)  
Cyclohexane (CAS 110-82-7)  
Ethylbenzene (CAS 100-41-4)  
Light Petroleum Distillate (CAS 8006-61-9)  
Naphthalene (CAS 91-20-3)  
n-Hexane (CAS 110-54-3)  
Toluene (CAS 108-88-3)  
Xylene (CAS 1330-20-7)

**US. Pennsylvania Worker and Community Right-to-Know Law**

1,2,4-Trimethylbenzene (CAS 95-63-6)  
Benzene (CAS 71-43-2)  
Cumene (CAS 98-82-8)  
Cyclohexane (CAS 110-82-7)

Ethylbenzene (CAS 100-41-4)  
Naphthalene (CAS 91-20-3)  
n-Hexane (CAS 110-54-3)  
Toluene (CAS 108-88-3)  
Xylene (CAS 1330-20-7)

#### US. Rhode Island RTK

1,2,4-Trimethylbenzene (CAS 95-63-6)  
Benzene (CAS 71-43-2)  
Cumene (CAS 98-82-8)  
Cyclohexane (CAS 110-82-7)  
Ethylbenzene (CAS 100-41-4)  
Naphthalene (CAS 91-20-3)  
n-Hexane (CAS 110-54-3)  
Toluene (CAS 108-88-3)  
Xylene (CAS 1330-20-7)

#### US. California Proposition 65

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

#### US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Benzene (CAS 71-43-2)  
Cumene (CAS 98-82-8)  
Ethylbenzene (CAS 100-41-4)  
Naphthalene (CAS 91-20-3)  
Toluene (CAS 108-88-3)

#### International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information, including date of preparation or last revision

**Issue date** 17-June-2015  
**Revision date** -  
**Version #** 01  
**HMIS® ratings** Health: 2\*  
Flammability: 3  
Physical hazard: 0

#### NFPA ratings



**Disclaimer**

Philadelphia Energy Solutions cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.



## Safety Data Sheet

### 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

**Product Name:** ULSD 15MV2 DELUX

**Distributor Information:**  
Sunoco LP  
3801 West Chester Pike  
  
Newtown Square, Pennsylvania, 19073  
sunocomsds@sunocoinc.com

**Product Use:**  
Ultra Low Sulfur Diesel Fuel 2

**Emergency Phone Numbers:**

Chemtrec	(800) 424-9300	24 Hours
Sunoco LP	(800) 964-8861	24 Hours

**Information:**

Product Safety Information (888) 567-3066

### 2. HAZARDS IDENTIFICATION

#### GHS Hazard

Flammable liquids – Category 3 H226  
Skin corrosion/irritation – Category 2 H315  
Aspiration hazard – Category 1 H304  
Acute toxicity, Inhalation – Category 4 H332  
Specific organ toxicity (repeated exposure) – Category 2 H373  
Carcinogenicity – Category 2 H351  
Hazardous to the aquatic environment, chronic toxicity – Category 1 H410

#### Label Elements – Signal Word: Danger



#### Hazard Statements

Flammable liquid and vapor. Causes skin irritation. May be fatal if swallowed and enters airways. Harmful if inhaled. May cause damage to organs through prolonged or repeated exposure. Suspected of causing cancer. Very toxic to aquatic life with long lasting effects.

#### Precautionary Statements

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. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist/vapors/spray. Wash skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release into the environment. Wear protective gloves/protective clothing and eye/face protection. IF SWALLOWED: immediately call a POISON CENTER or doctor/physician. Do not induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. Take off contaminated clothing and wash before reuse. In case of fire: Use CO<sub>2</sub>, dry chemical or foam for extinction. Store in a well-ventilated place. Keep cool. Dispose of contents/container to an approved waste disposal facility.

**Hazards Ratings:**

Key: 0 = least, 1 = slight, 2 = moderate, 3 = high, 4 = extreme

	<u>Health</u>	<u>Fire</u>	<u>Reactivity</u>	<u>PPI</u>
NFPA	1	2	0	
HMIS	2	2	0	X

• **EMERGENCY OVERVIEW**

Vapors may cause flash fire or explosion. Static accumulator. May form an ignitable vapor/air mixture.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

<u>Component</u>	<u>CAS No.</u>	<u>Amount (Vol%)</u>
NO. 2 FUEL OIL	68476-30-2	100 - 100
NAPHTHALENE	91-20-3	0 - 2
M-XYLENE	108-38-3	0 - 0.2
O-XYLENE	95-47-6	0 - 0.12
TOLUENE	108-88-3	0 - 0.098
P-XYLENE	106-42-3	0 - 0.064
ETHYLBENZENE	100-41-4	0 - 0.063
CUMENE	98-82-8	0 - 0.015
HEXANE	110-54-3	0 - 0.014
BENZENE	71-43-2	0 - 0.009

**4. FIRST AID MEASURES**

• **INHALATION**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen and continue to monitor. Get immediate medical attention.

• **SKIN**

Wash with soap and water for 20 minutes. Get medical attention if irritation develops or persists. Wash clothing before reuse. Destroy contaminated shoes and other leather products. Injection injuries may not appear serious at first but within a few hours, without proper treatment, the area will become swollen, discolored and extremely painful. NOTE TO PHYSICIAN: Following injection, prompt debridement of the wound is necessary to minimize necrosis and tissue loss.

• **EYES**

Flush eye with water for 20 minutes. Get medical attention.

• **INGESTION**

Do not induce vomiting! Do not give liquids! Get medical attention immediately.

**5. FIRE FIGHTING MEASURES**

• **EXTINGUISHING MEDIA**

The following media may be used to extinguish a fire involving this material: Regular foam; Dry chemical; Carbon dioxide; Water may be ineffective. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.



- **FIRE FIGHTING INSTRUCTIONS**

Use water spray. Use water spray to cool fire exposed tanks and containers. Wear structural fire-fighting gear. The use of fresh air equipment such as Self Contained Breathing Apparatus (SCBA) or Supplied Air Respirators should be worn for fire-fighting if exposure or potential exposure to products of combustion is expected.

**FLAMMABLE PROPERTIES**

Flammable. This material can be ignited by heat, sparks or open flames or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment, electronic devices such as cell phones, computers, calculators). Vapors may travel considerable distances to a source of ignition where they can ignite, flash back or explode. May create vapor/air explosions hazard indoors, confined spaces, outdoors or in sewers. This product will float and can be reignited on surface water. Vapors are heavier than air and can accumulate in low areas. If container is not properly cooled, it can rupture in the heat of fire.

**HAZARDOUS COMBUSTION PRODUCTS:** Combustion may yield smoke, carbon monoxide, and other products of incomplete combustion. Oxides of nitrogen and sulfur may also be formed.

**6. ACCIDENTAL RELEASE MEASURES**

Prevent ignition, stop leak and ventilate the area. Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Use appropriate personal protective equipment as stated in Section 8 of this MSDS. Advise the Environmental Protection Agency (EPA) and appropriate state agencies, if required. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Vacuum or sweep up material and place in a disposal container.

**7. HANDLING AND STORAGE**

- **HANDLING**

Use only in a well-ventilated area. **STATIC ACCUMULATOR.** This liquid may form an ignitable vapor-air mixture in closed tanks or containers. This liquid may accumulate static electricity even when transferred into properly grounded containers. Bonding and grounding may be insufficient to remove static electricity. Static electricity accumulation may be significantly increased by the presence of small quantities of water. Always bond receiving container to the fill pipe before and during loading, following NFPA-77 and/or API RP 2003 requirements. Automatic gauging devices and other floats in vessels or tanks which contain static accumulating liquids should be electrically bonded to the shell. Bonding and grounding alone may be inadequate to eliminate fire and explosion hazards associated with electrostatic charges. In addition to bonding and grounding, efforts to mitigate the hazards of an electrostatic discharge may include, but are not limited to, ventilation, inerting and/or reduction of transfer velocities. Always keep the nozzle in contact with the container throughout the loading process. Do not fill any portable containers in or on a vehicle. Special precautions, such as reduced loading rates and increased monitoring, must be observed during "switch loading" operations (i.e. loading this material in tanks or shipping compartments that previously contained middle distillates or similar products). Non-equilibrium conditions may increase the risks associated with static electricity such as tank and container filling, tank cleaning, sampling, gauging, loading, filtering, mixing, agitation, etc. Dissipation of electrostatic charges may be improved with the use of conductivity additives when used with other mitigating efforts, including bonding and grounding. Avoid breathing (dust, vapor, mist, gas). Avoid prolonged or repeated contact with skin. Avoid contact with eyes. Wash thoroughly after handling. "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. **DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.** Empty drums should be completely drained, properly bunged, and promptly returned to a drum reconditioned, or properly disposed of. For use as a motor fuel only. Do not use as a solvent due to its flammable and potentially toxic properties.

- **STORAGE**

Keep away from heat, sparks, and flame. Keep container closed when not in use. Store in a cool place in original container and protect from sunlight. Outside or detached storage is preferred. NFPA class II storage. Flash point is greater than 100 degrees F and less than 140 degrees F. Consult NFPA and / or OSHA codes for additional information.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Consult With a Health and Safety Professional for Specific Selections

- **ENGINEERING CONTROLS**

Use with adequate ventilation. Ventilation is normally required when handling or using this product to keep exposure to airborne contaminants below the exposure limit. Good general ventilation should be sufficient to control airborne levels.

- **PERSONAL PROTECTION**

- **EYE PROTECTION**

Use chemical splash goggles and face shield (ANSI Z87.1 or approved equivalent).

- **GLOVES or HAND PROTECTION**

The glove(s) listed below may provide protection against permeation. Gloves of other chemically resistant materials may not provide adequate protection. Protective gloves are recommended to protect against contact with product. Polyethylene; Nitrile; Viton; Polyvinyl chloride (PVC); Neoprene; Polyvinyl alcohol;

- **RESPIRATORY PROTECTION**

Concentration in air determines the level of respiratory protection needed. Use only NIOSH certified respiratory equipment. Half-mask air purifying respirator with organic vapor cartridges is acceptable for exposures to ten (10) times the exposure limit. Full-face air purifying respirator with organic vapor cartridges is acceptable for exposures to fifty (50) times the exposure limit. Exposure should not exceed the cartridge limit of 1000 ppm. Protection by air purifying respirators is limited. Use a positive pressure-demand full-face supplied air respirator or SCBA for exposures greater than fifty (50) times the exposure limit. If exposure is above the IDLH (Immediately Dangerous to Life and Health) or there is the possibility of an uncontrolled release, or exposure levels are unknown, then use a positive pressure-demand full-face supplied air respirator with escape bottle or SCBA. Wear a NIOSH-approved (or equivalent) full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

- **OTHER**

Where splashing is possible, full chemically resistant protective clothing and boots are required. The following materials are acceptable for use as protective clothing: Polyethylene; Nitrile; Viton; Polyvinyl chloride (PVC); Polyvinyl alcohol (PVA); Neoprene; Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Remove contaminated clothing and wash before reuse. For non-fire emergencies, positive pressure SCBA and structural firefighter's protective clothing will provide only limited protection.

## **EXPOSURE GUIDELINES**

	<b>CAS No.</b>	<b>Governing Body</b>	<b>Exposure Limits</b>		
Limit for the product	68476-30-2	ACGIH	TWA	100	mg/m3
BENZENE	71-43-2	ACGIH	STEL	2.5	ppm
BENZENE	71-43-2	OSHA	STEL	5	ppm
BENZENE	71-43-2	ACGIH	TWA	0.5	ppm
BENZENE	71-43-2	OSHA	TWA	1	ppm
CUMENE	98-82-8	ACGIH	TWA	50	ppm
CUMENE	98-82-8	OSHA	TWA	50	ppm
HEXANE	110-54-3	ACGIH	TWA	50	ppm
HEXANE	110-54-3	OSHA	TWA	500	ppm
M-XYLENE	108-38-3	ACGIH	STEL	150	ppm
M-XYLENE	108-38-3	ACGIH	TWA	100	ppm
M-XYLENE	108-38-3	OSHA	TWA	100	ppm
NAPHTHALENE	91-20-3	ACGIH	STEL	15	ppm
NAPHTHALENE	91-20-3	ACGIH	TWA	10	ppm
NAPHTHALENE	91-20-3	OSHA	TWA	10	ppm
O-XYLENE	95-47-6	ACGIH	STEL	150	ppm
O-XYLENE	95-47-6	ACGIH	TWA	100	ppm
O-XYLENE	95-47-6	OSHA	TWA	100	ppm
P-XYLENE	106-42-3	ACGIH	STEL	150	ppm
P-XYLENE	106-42-3	ACGIH	TWA	100	ppm
P-XYLENE	106-42-3	OSHA	TWA	100	ppm
TOLUENE	108-88-3	NIOSH	STEL	150	ppm
TOLUENE	108-88-3	ACGIH	TWA	20	ppm
TOLUENE	108-88-3	OSHA	TWA	200	ppm
ETHYLBENZENE	100-41-4	ACGIH	TWA	20	ppm
ETHYLBENZENE	100-41-4	OSHA	TWA	100	ppm
NO. 2 FUEL OIL	68476-30-2	ACGIH	TWA	100	mg/m3

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Property	Typical	Units	Text Result	Reference
Appearance		N/A	Reddish liquid	
Auto Ignition Temperature	494	F		
Boiling Point		F	390 TO 600	
Flash Point	125	F	Min PMCC	
Melting Point		F	no data	
Molecular Weight		g/mole	no data	
Octanol/Water Coefficient		N/A	no data	
Upper Exp. Limit	10	%		
Low Explosion Limit	0.3	%	no data	
Specific Gravity	0.87	N/A		
Solubility In Water		wt %	NIL	
Odor		N/A	Diesel Fuel	
Odor Threshold		ppm	no data	
Vapor Pressure	0.5	mmHg		@ 20 C
Viscosity (F)		SUS	no data	
Viscosity (C)	1.9	CsT		@ 40 C
% Volatile	100	wt %		

## 10. STABILITY AND REACTIVITY

- **STABILITY**  
Stable
- **CONDITIONS TO AVOID**  
Avoid heat, sparks and open flame.
- **INCOMPATIBILITY**  
Strong oxidizers
- **HAZARDOUS DECOMPOSITION PRODUCTS**  
Combustion may produce carbon monoxide, carbon dioxide and other asphyxiants.
- **HAZARDOUS POLYMERIZATION**  
Will not polymerize.

## 11. TOXICOLOGY INFORMATION

### Single Exposure Health Effects

#### Oral:

LD50 (g/kg): >5 g/kg

#### Dermal:

LD50 (mg/kg): >4.1 g/kg

#### Inhalation:

LC50 (mg/l): 4.65 mg/l mist

LC50 (mg/m3): no data

**LC50 (ppm):**

no data

- **POTENTIAL HEALTH EFFECTS**

- **INHALATION**

High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis and loss of consciousness and even death).

- **SKIN**

Practically non-toxic if absorbed through the skin. Prolonged or repeated skin contact may cause irritation. Contains a material that has caused skin tumors in laboratory animals.

- **EYES**

Mildly irritating to the eyes.

- **INGESTION**

Harmful or fatal if swallowed. Pulmonary aspiration hazard. While ingesting or vomiting, may enter lungs and produce damage.

- **PRE-EXISTING MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE**

The following diseases or disorders may be aggravated by exposure to this product: skin, kidney,

**Skin Sensitization:** Not expected to be a skin sensitizer.

**Respiratory Sensitizer:** Not expected to be a respiratory sensitizer.

**Specific Target Organ Toxicity (Single Exposure):** Not expected to cause organ effects from single exposure.

**Specific Target Organ Toxicity (Repeated Exposure):** May cause damage to organs through prolonged and repeated exposure. Repeated dermal application of petroleum gas oils for 90 days 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.

**Carcinogenicity:** Dermal exposure to middle distillates have caused skin cancer in laboratory animals when repeatedly applied and left in place between applications. Ethylbenzene, a component of this product, has been designated by the International Agency for Research on Cancer as "possibly carcinogenic to humans", based on increased tumor incidence in laboratory animals. Also, exposure to naphthalene has produced "respiratory tract" tumors in laboratory animals.

**Component Toxicity Information**

Overexposure to naphthalene, a minor component of this product, may cause skin, eye and respiratory tract irritation, anemia, loss of vision, nervous system effects and kidney and thymus damage laboratory animals. Cumene may be harmful or fatal if swallowed. Pulmonary aspiration hazard. After ingestion, may enter lungs and cause damage. May cause respiratory irritation, fluid in the lungs and lung damage. May be irritating to the skin and eyes. May cause nervous system effects, including drowsiness, dizziness, coma and even death. Overexposure has caused kidney, nose, and liver damage in laboratory animals. Following inhalation exposure, an increased tumor incidence has been observed in experimental animals. The significance of this finding to human health is presently unknown. , Overexposure to Ethylbenzene may lead to nervous system effects, including drowsiness, dizziness, nausea, headaches, paralysis, loss of consciousness and even death. Repeated overexposure has caused a hearing loss in laboratory animals.

## **12. ECOLOGICAL INFORMATION**

**Toxicity:** Experimental studies of gas oils show that acute aquatic toxicity values are typically in the range of 2-20 mg/l. These values are consistent with the predicted aquatic toxicity of these substances based on their hydrocarbon compositions. They should be regarded as toxic to aquatic organisms, with the potential to cause long term adverse effects in the aquatic environment.

**Persistence and Degradability:** Gas oils are complex combinations of individual hydrocarbon species. Based on the known or expected properties of individual constituents, category members are not predicted to be readily

biodegradable. Some hydrocarbon constituents of gas oils are predicted to meet the criteria for persistence; on the other hand, some component can be easily degraded by microorganisms under aerobic conditions.

**Bioaccumulative Potential:** Gas oil components have measured or calculated Log Kow values in the range of 3.9 to 6 which indicates a high potential to bioaccumulate. Lower molecular weight compounds are readily metabolized and the actual bioaccumulation potential of higher molecular weights compounds is limited by the low water solubility and large molecular size.

**Mobility in Soil:** Releases to water will result in a hydrocarbon film floating and spreading on the surface. For the lighter components, volatilization is an important loss process and reduces the hazards to aquatic organisms. In air, the hydrocarbon vapors react readily with hydroxyl radicals with half-lives of less than one day. Photooxidation on the water surface is also a significant loss process particularly for polycyclic aromatic compounds. In water, the majority of components will be absorbed in sediment. Adsorption is the most predominant physical process on release to soil. Adsorbed hydrocarbons will slowly degrade in both water and soil.

### **13. DISPOSAL CONSIDERATIONS**

Follow federal, state and local regulations. This material is a RCRA hazardous waste. Do not flush material to drain or storm sewer. Contract to authorized disposal service.

### **14. TRANSPORT INFORMATION**

<u>Governing Body</u>	<u>Mode</u>	<u>Proper Shipping Name</u>
DOT	Ground	Fuel Oil
IATA	Air	Gas Oil

<u>Governing Body</u>	<u>Mode</u>	<u>Hazard Class</u>	<u>UN/NA No.</u>	<u>Label</u>
DOT	Ground	Combustible Liquid	NA1993	
IATA	Air	Flammable Liquid	1202	

### **15. REGULATORY INFORMATION**

This product contains the following EPCRA section 313 chemicals subject to the reporting requirements of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372): Maximum Wt% Naphthalene- CAS Number 91-20-3, 2.6%; %; Ethyl benzene- CAS Number 100-41-4, 0.1%. This information must be included in all MSDSs that are copied and distributed for this material.

<u>Regulatory List</u>	<u>Component</u>	<u>CAS No.</u>
ACGIH - Occupational Exposure Limits - Carcinogens	FUEL OIL 2	68476-30-2
ACGIH - Occupational Exposure Limits - TWAs	FUEL OIL 2	68476-30-2
ACGIH - Skin Absorption Designation	FUEL OIL 2	68476-30-2
Inventory - Australia (AICS)	FUEL OIL 2	68476-30-2
Inventory - Canada - Domestic Substances List	FUEL OIL 2	68476-30-2
Inventory - China	FUEL OIL 2	68476-30-2
Inventory - European EINECS Inventory	FUEL OIL 2	68476-30-2
Inventory - Korea - Existing and Evaluated	FUEL OIL 2	68476-30-2
Inventory - Philippines Inventory (PICCS)	FUEL OIL 2	68476-30-2
Inventory - TSCA - Sect. 8(b) Inventory	FUEL OIL 2	68476-30-2
ACGIH - Occupational Exposure Limits - Carcinogens	BENZENE	71-43-2
ACGIH - Occupational Exposure Limits - Carcinogens	ETHYLBENZENE	100-41-4
ACGIH - Occupational Exposure Limits - Carcinogens	M-XYLENE	108-38-3
ACGIH - Occupational Exposure Limits - Carcinogens	NAPHTHALENE	91-20-3
ACGIH - Occupational Exposure Limits - Carcinogens	NO. 2 FUEL OIL	68476-30-2
ACGIH - Occupational Exposure Limits - Carcinogens	O-XYLENE	95-47-6
ACGIH - Occupational Exposure Limits - Carcinogens	P-XYLENE	106-42-3
ACGIH - Occupational Exposure Limits - Carcinogens	TOLUENE	108-88-3
ACGIH - Occupational Exposure Limits - TWAs	BENZENE	71-43-2
ACGIH - Occupational Exposure Limits - TWAs	CUMENE	98-82-8
ACGIH - Occupational Exposure Limits - TWAs	ETHYLBENZENE	100-41-4

ACGIH - Occupational Exposure Limits - TWAs	HEXANE	110-54-3
ACGIH - Occupational Exposure Limits - TWAs	M-XYLENE	108-38-3
ACGIH - Occupational Exposure Limits - TWAs	NAPHTHALENE	91-20-3
ACGIH - Occupational Exposure Limits - TWAs	NO. 2 FUEL OIL	68476-30-2
ACGIH - Occupational Exposure Limits - TWAs	O-XYLENE	95-47-6
ACGIH - Occupational Exposure Limits - TWAs	P-XYLENE	106-42-3
ACGIH - Occupational Exposure Limits - TWAs	TOLUENE	108-88-3
ACGIH - Short Term Exposure Limits	BENZENE	71-43-2
ACGIH - Short Term Exposure Limits	ETHYLBENZENE	100-41-4
ACGIH - Short Term Exposure Limits	M-XYLENE	108-38-3
ACGIH - Short Term Exposure Limits	NAPHTHALENE	91-20-3
ACGIH - Short Term Exposure Limits	O-XYLENE	95-47-6
ACGIH - Short Term Exposure Limits	P-XYLENE	106-42-3
ACGIH - Skin Absorption Designation	BENZENE	71-43-2
ACGIH - Skin Absorption Designation	HEXANE	110-54-3
ACGIH - Skin Absorption Designation	NAPHTHALENE	91-20-3
ACGIH - Skin Absorption Designation	NO. 2 FUEL OIL	68476-30-2
CAA (Clean Air Act) - HON Rule - Organic HAPs	BENZENE	71-43-2
CAA (Clean Air Act) - HON Rule - Organic HAPs	CUMENE	98-82-8
CAA (Clean Air Act) - HON Rule - Organic HAPs	ETHYLBENZENE	100-41-4
CAA (Clean Air Act) - HON Rule - Organic HAPs	HEXANE	110-54-3
CAA (Clean Air Act) - HON Rule - Organic HAPs	M-XYLENE	108-38-3
CAA (Clean Air Act) - HON Rule - Organic HAPs	NAPHTHALENE	91-20-3
CAA (Clean Air Act) - HON Rule - Organic HAPs	O-XYLENE	95-47-6
CAA (Clean Air Act) - HON Rule - Organic HAPs	P-XYLENE	106-42-3
CAA (Clean Air Act) - HON Rule - Organic HAPs	TOLUENE	108-88-3
CAA (Clean Air Act) - HON Rule - SOCMI Chemicals	BENZENE	71-43-2
CAA (Clean Air Act) - HON Rule - SOCMI Chemicals	CUMENE	98-82-8
CAA (Clean Air Act) - HON Rule - SOCMI Chemicals	ETHYLBENZENE	100-41-4
CAA (Clean Air Act) - HON Rule - SOCMI Chemicals	HEXANE	110-54-3
CAA (Clean Air Act) - HON Rule - SOCMI Chemicals	M-XYLENE	108-38-3
CAA (Clean Air Act) - HON Rule - SOCMI Chemicals	NAPHTHALENE	91-20-3
CAA (Clean Air Act) - HON Rule - SOCMI Chemicals	O-XYLENE	95-47-6
CAA (Clean Air Act) - HON Rule - SOCMI Chemicals	P-XYLENE	106-42-3
CAA (Clean Air Act) - HON Rule - SOCMI Chemicals	TOLUENE	108-88-3
CAA - 1990 Hazardous Air Pollutants	BENZENE	71-43-2
CAA - 1990 Hazardous Air Pollutants	CUMENE	98-82-8
CAA - 1990 Hazardous Air Pollutants	ETHYLBENZENE	100-41-4
CAA - 1990 Hazardous Air Pollutants	HEXANE	110-54-3
CAA - 1990 Hazardous Air Pollutants	M-XYLENE	108-38-3
CAA - 1990 Hazardous Air Pollutants	NAPHTHALENE	91-20-3
CAA - 1990 Hazardous Air Pollutants	O-XYLENE	95-47-6
CAA - 1990 Hazardous Air Pollutants	P-XYLENE	106-42-3
CAA - 1990 Hazardous Air Pollutants	TOLUENE	108-88-3
California - Prop. 65 - Developmental Toxicity	BENZENE	71-43-2
California - Prop. 65 - Developmental Toxicity	TOLUENE	108-88-3
California - Prop. 65 - Reproductive - Female	TOLUENE	108-88-3
California - Prop. 65 - Reproductive - Male	BENZENE	71-43-2
California - Proposition 65 - Carcinogens List	BENZENE	71-43-2
California - Proposition 65 - Carcinogens List	ETHYLBENZENE	100-41-4
California - Proposition 65 - Carcinogens List	NAPHTHALENE	91-20-3
Canada - WHMIS - Ingredient Disclosure	ETHYLBENZENE	100-41-4
Canada - WHMIS - Ingredient Disclosure	HEXANE	110-54-3
Canada - WHMIS - Ingredient Disclosure	M-XYLENE	108-38-3
Canada - WHMIS - Ingredient Disclosure	O-XYLENE	95-47-6
Canada - WHMIS - Ingredient Disclosure	P-XYLENE	106-42-3
Canada - WHMIS - Ingredient Disclosure	TOLUENE	108-88-3
CERCLA/SARA - Haz Substances and their RQs	BENZENE	71-43-2
CERCLA/SARA - Haz Substances and their RQs	CUMENE	98-82-8
CERCLA/SARA - Haz Substances and their RQs	ETHYLBENZENE	100-41-4
CERCLA/SARA - Haz Substances and their RQs	HEXANE	110-54-3
CERCLA/SARA - Haz Substances and their RQs	M-XYLENE	108-38-3

CERCLA/SARA - Haz Substances and their RQs	NAPHTHALENE	91-20-3
CERCLA/SARA - Haz Substances and their RQs	O-XYLENE	95-47-6
CERCLA/SARA - Haz Substances and their RQs	P-XYLENE	106-42-3
CERCLA/SARA - Haz Substances and their RQs	TOLUENE	108-88-3
CERCLA/SARA - Section 313 - Emission Reporting	BENZENE	71-43-2
CERCLA/SARA - Section 313 - Emission Reporting	CUMENE	98-82-8
CERCLA/SARA - Section 313 - Emission Reporting	ETHYLBENZENE	100-41-4
CERCLA/SARA - Section 313 - Emission Reporting	HEXANE	110-54-3
CERCLA/SARA - Section 313 - Emission Reporting	M-XYLENE	108-38-3
CERCLA/SARA - Section 313 - Emission Reporting	NAPHTHALENE	91-20-3
CERCLA/SARA - Section 313 - Emission Reporting	O-XYLENE	95-47-6
CERCLA/SARA - Section 313 - Emission Reporting	P-XYLENE	106-42-3
CERCLA/SARA - Section 313 - Emission Reporting	TOLUENE	108-88-3
CWA (Clean Water Act) - Hazardous Substances	BENZENE	71-43-2
CWA (Clean Water Act) - Hazardous Substances	ETHYLBENZENE	100-41-4
CWA (Clean Water Act) - Hazardous Substances	M-XYLENE	108-38-3
CWA (Clean Water Act) - Hazardous Substances	NAPHTHALENE	91-20-3
CWA (Clean Water Act) - Hazardous Substances	O-XYLENE	95-47-6
CWA (Clean Water Act) - Hazardous Substances	P-XYLENE	106-42-3
CWA (Clean Water Act) - Hazardous Substances	TOLUENE	108-88-3
CWA (Clean Water Act) - Priority Pollutants	BENZENE	71-43-2
CWA (Clean Water Act) - Priority Pollutants	ETHYLBENZENE	100-41-4
CWA (Clean Water Act) - Priority Pollutants	NAPHTHALENE	91-20-3
CWA (Clean Water Act) - Priority Pollutants	TOLUENE	108-88-3
CWA (Clean Water Act) - Toxic Pollutants	BENZENE	71-43-2
CWA (Clean Water Act) - Toxic Pollutants	ETHYLBENZENE	100-41-4
CWA (Clean Water Act) - Toxic Pollutants	NAPHTHALENE	91-20-3
CWA (Clean Water Act) - Toxic Pollutants	TOLUENE	108-88-3
IARC - Group 1 (carcinogenic to humans)	BENZENE	71-43-2
IARC - Group 2B (Possibly carcinogenic to humans)	ETHYLBENZENE	100-41-4
IARC - Group 2B (Possibly carcinogenic to humans)	NAPHTHALENE	91-20-3
IARC - Group 3 (not classifiable)	M-XYLENE	108-38-3
IARC - Group 3 (not classifiable)	P-XYLENE	106-42-3
IARC - Group 3 (not classifiable)	TOLUENE	108-88-3
Inventory - Australia (AICS)	BENZENE	71-43-2
Inventory - Australia (AICS)	CUMENE	98-82-8
Inventory - Australia (AICS)	ETHYLBENZENE	100-41-4
Inventory - Australia (AICS)	HEXANE	110-54-3
Inventory - Australia (AICS)	M-XYLENE	108-38-3
Inventory - Australia (AICS)	NAPHTHALENE	91-20-3
Inventory - Australia (AICS)	NO. 2 FUEL OIL	68476-30-2
Inventory - Australia (AICS)	O-XYLENE	95-47-6
Inventory - Australia (AICS)	P-XYLENE	106-42-3
Inventory - Australia (AICS)	TOLUENE	108-88-3
Inventory - Australia (AICS)	BENZENE	71-43-2
Inventory - Australia (AICS)	CUMENE	98-82-8
Inventory - Australia (AICS)	ETHYLBENZENE	100-41-4
Inventory - Australia (AICS)	HEXANE	110-54-3
Inventory - Australia (AICS)	M-XYLENE	108-38-3
Inventory - Australia (AICS)	NAPHTHALENE	91-20-3
Inventory - Australia (AICS)	NO. 2 FUEL OIL	68476-30-2
Inventory - Australia (AICS)	O-XYLENE	95-47-6
Inventory - Australia (AICS)	P-XYLENE	106-42-3
Inventory - Australia (AICS)	TOLUENE	108-88-3
Inventory - Canada - Domestic Substances List	BENZENE	71-43-2
Inventory - Canada - Domestic Substances List	CUMENE	98-82-8
Inventory - Canada - Domestic Substances List	ETHYLBENZENE	100-41-4
Inventory - Canada - Domestic Substances List	HEXANE	110-54-3
Inventory - Canada - Domestic Substances List	M-XYLENE	108-38-3
Inventory - Canada - Domestic Substances List	NAPHTHALENE	91-20-3
Inventory - Canada - Domestic Substances List	NO. 2 FUEL OIL	68476-30-2
Inventory - Canada - Domestic Substances List	O-XYLENE	95-47-6
Inventory - Canada - Domestic Substances List	P-XYLENE	106-42-3
Inventory - Canada - Domestic Substances List	TOLUENE	108-88-3
Inventory - Canada - Domestic Substances List	BENZENE	71-43-2
Inventory - China	CUMENE	98-82-8
Inventory - China	ETHYLBENZENE	100-41-4
Inventory - China	HEXANE	110-54-3
Inventory - China	M-XYLENE	108-38-3
Inventory - China	NAPHTHALENE	91-20-3
Inventory - China	NO. 2 FUEL OIL	68476-30-2
Inventory - China	O-XYLENE	95-47-6

Inventory - China	P-XYLENE	106-42-3
Inventory - China	TOLUENE	108-88-3
Inventory - European EINECS Inventory	BENZENE	71-43-2
Inventory - European EINECS Inventory	CUMENE	98-82-8
Inventory - European EINECS Inventory	ETHYLBENZENE	100-41-4
Inventory - European EINECS Inventory	HEXANE	110-54-3
Inventory - European EINECS Inventory	M-XYLENE	108-38-3
Inventory - European EINECS Inventory	NAPHTHALENE	91-20-3
Inventory - European EINECS Inventory	NO. 2 FUEL OIL	68476-30-2
Inventory - European EINECS Inventory	O-XYLENE	95-47-6
Inventory - European EINECS Inventory	P-XYLENE	106-42-3
Inventory - European EINECS Inventory	TOLUENE	108-88-3
Inventory - Japan - (ENCS)	BENZENE	71-43-2
Inventory - Japan - (ENCS)	CUMENE	98-82-8
Inventory - Japan - (ENCS)	ETHYLBENZENE	100-41-4
Inventory - Japan - (ENCS)	HEXANE	110-54-3
Inventory - Japan - (ENCS)	M-XYLENE	108-38-3
Inventory - Japan - (ENCS)	NAPHTHALENE	91-20-3
Inventory - Japan - (ENCS)	O-XYLENE	95-47-6
Inventory - Japan - (ENCS)	P-XYLENE	106-42-3
Inventory - Japan - (ENCS)	TOLUENE	108-88-3
Inventory - Korea - Existing and Evaluated	BENZENE	71-43-2
Inventory - Korea - Existing and Evaluated	CUMENE	98-82-8
Inventory - Korea - Existing and Evaluated	ETHYLBENZENE	100-41-4
Inventory - Korea - Existing and Evaluated	HEXANE	110-54-3
Inventory - Korea - Existing and Evaluated	M-XYLENE	108-38-3
Inventory - Korea - Existing and Evaluated	NAPHTHALENE	91-20-3
Inventory - Korea - Existing and Evaluated	NO. 2 FUEL OIL	68476-30-2
Inventory - Korea - Existing and Evaluated	O-XYLENE	95-47-6
Inventory - Korea - Existing and Evaluated	P-XYLENE	106-42-3
Inventory - Korea - Existing and Evaluated	TOLUENE	108-88-3
Inventory - Philippines Inventory (PICCS)	BENZENE	71-43-2
Inventory - Philippines Inventory (PICCS)	CUMENE	98-82-8
Inventory - Philippines Inventory (PICCS)	ETHYLBENZENE	100-41-4
Inventory - Philippines Inventory (PICCS)	HEXANE	110-54-3
Inventory - Philippines Inventory (PICCS)	M-XYLENE	108-38-3
Inventory - Philippines Inventory (PICCS)	NAPHTHALENE	91-20-3
Inventory - Philippines Inventory (PICCS)	NO. 2 FUEL OIL	68476-30-2
Inventory - Philippines Inventory (PICCS)	O-XYLENE	95-47-6
Inventory - Philippines Inventory (PICCS)	P-XYLENE	106-42-3
Inventory - Philippines Inventory (PICCS)	TOLUENE	108-88-3
Inventory - TSCA - Sect. 8(b) Inventory	BENZENE	71-43-2
Inventory - TSCA - Sect. 8(b) Inventory	CUMENE	98-82-8
Inventory - TSCA - Sect. 8(b) Inventory	ETHYLBENZENE	100-41-4
Inventory - TSCA - Sect. 8(b) Inventory	HEXANE	110-54-3
Inventory - TSCA - Sect. 8(b) Inventory	M-XYLENE	108-38-3
Inventory - TSCA - Sect. 8(b) Inventory	NAPHTHALENE	91-20-3
Inventory - TSCA - Sect. 8(b) Inventory	NO. 2 FUEL OIL	68476-30-2
Inventory - TSCA - Sect. 8(b) Inventory	O-XYLENE	95-47-6
Inventory - TSCA - Sect. 8(b) Inventory	P-XYLENE	106-42-3
Inventory - TSCA - Sect. 8(b) Inventory	TOLUENE	108-88-3
Massachusetts - Right To Know List	BENZENE	71-43-2
Massachusetts - Right To Know List	CUMENE	98-82-8
Massachusetts - Right To Know List	ETHYLBENZENE	100-41-4
Massachusetts - Right To Know List	HEXANE	110-54-3
Massachusetts - Right To Know List	M-XYLENE	108-38-3
Massachusetts - Right To Know List	NAPHTHALENE	91-20-3
Massachusetts - Right To Know List	O-XYLENE	95-47-6
Massachusetts - Right To Know List	P-XYLENE	106-42-3
Massachusetts - Right To Know List	TOLUENE	108-88-3
New Jersey - Department of Health RTK List	BENZENE	71-43-2
New Jersey - Department of Health RTK List	CUMENE	98-82-8



New Jersey - Department of Health RTK List	ETHYLBENZENE	100-41-4
New Jersey - Department of Health RTK List	HEXANE	110-54-3
New Jersey - Department of Health RTK List	M-XYLENE	108-38-3
New Jersey - Department of Health RTK List	NAPHTHALENE	91-20-3
New Jersey - Department of Health RTK List	O-XYLENE	95-47-6
New Jersey - Department of Health RTK List	P-XYLENE	106-42-3
New Jersey - Department of Health RTK List	TOLUENE	108-88-3
New Jersey - Env Hazardous Substances List	BENZENE	71-43-2
New Jersey - Env Hazardous Substances List	CUMENE	98-82-8
New Jersey - Env Hazardous Substances List	ETHYLBENZENE	100-41-4
New Jersey - Env Hazardous Substances List	HEXANE	110-54-3
New Jersey - Env Hazardous Substances List	M-XYLENE	108-38-3
New Jersey - Env Hazardous Substances List	NAPHTHALENE	91-20-3
New Jersey - Env Hazardous Substances List	O-XYLENE	95-47-6
New Jersey - Env Hazardous Substances List	P-XYLENE	106-42-3
New Jersey - Env Hazardous Substances List	TOLUENE	108-88-3
New Jersey - Env Hazardous Substances List	BENZENE	71-43-2
New Jersey - Env Hazardous Substances List	CUMENE	98-82-8
New Jersey - Special Hazardous Substances	ETHYLBENZENE	100-41-4
New Jersey - Special Hazardous Substances	HEXANE	110-54-3
New Jersey - Special Hazardous Substances	M-XYLENE	108-38-3
New Jersey - Special Hazardous Substances	NAPHTHALENE	91-20-3
New Jersey - Special Hazardous Substances	O-XYLENE	95-47-6
New Jersey - Special Hazardous Substances	P-XYLENE	106-42-3
New Jersey - Special Hazardous Substances	TOLUENE	108-88-3
NTP - Report on Carcinogens - Known Carcinogens	BENZENE	71-43-2
NTP - Report on Carcinogens - Suspect Carcinogens	NAPHTHALENE	91-20-3
OSHA - Final PELs - Ceiling Limits	BENZENE	71-43-2
OSHA - Final PELs - Ceiling Limits	TOLUENE	108-88-3
OSHA - Final PELs - Short Term Exposure Limits	BENZENE	71-43-2
OSHA - Final PELs - Skin Notations	CUMENE	98-82-8
OSHA - Final PELs - Time Weighted Averages	BENZENE	71-43-2
OSHA - Final PELs - Time Weighted Averages	CUMENE	98-82-8
OSHA - Final PELs - Time Weighted Averages	ETHYLBENZENE	100-41-4
OSHA - Final PELs - Time Weighted Averages	HEXANE	110-54-3
OSHA - Final PELs - Time Weighted Averages	NAPHTHALENE	91-20-3
OSHA - Final PELs - Time Weighted Averages	TOLUENE	108-88-3
Pennsylvania - RTK (Right to Know) List	BENZENE	71-43-2
Pennsylvania - RTK (Right to Know) List	CUMENE	98-82-8
Pennsylvania - RTK (Right to Know) List	ETHYLBENZENE	100-41-4
Pennsylvania - RTK (Right to Know) List	HEXANE	110-54-3
Pennsylvania - RTK (Right to Know) List	M-XYLENE	108-38-3
Pennsylvania - RTK (Right to Know) List	NAPHTHALENE	91-20-3
Pennsylvania - RTK (Right to Know) List	O-XYLENE	95-47-6
Pennsylvania - RTK (Right to Know) List	P-XYLENE	106-42-3
Pennsylvania - RTK (Right to Know) List	TOLUENE	108-88-3
Pennsylvania - RTK - Special Hazardous Substances	BENZENE	71-43-2
TSCA - Sect. 12(b) - Export Notification	NAPHTHALENE	91-20-3
TSCA - Sect. 12(b) - Export Notification	P-XYLENE	106-42-3
TSCA - Section 4 - Chemical Test Rules	NAPHTHALENE	91-20-3
TSCA - Section 4 - Chemical Test Rules	P-XYLENE	106-42-3

### Title III Classifications Sections 311,312:

- Acute: **YES**
- Chronic: **YES**
- Fire: **YES**
- Reactivity: **NO**
- Sudden Release of Pressure: **NO**

## **16. OTHER INFORMATION**

Follow all MSDS/label precautions even after container is emptied because it may retain product residue. Keep out of reach of children. Email Address: For MSDS requests/information please contact [sunocomsds@sunocoinc.com](mailto:sunocomsds@sunocoinc.com). For use as a motor fuel only. Do not use as a solvent due to its flammable and potentially toxic properties.

## 1. Identification

**Product identifier**                    **87 RFG 10% ETH**  
**Other means of identification**    None.  
**Recommended use**                    Motor fuel.  
**Recommended restrictions**        None known.

### Manufacturer/Importer/Supplier/Distributor information

#### Manufacturer

**Company name**                    Philadelphia Energy Solutions  
**Address**                                3144 W. Passyunk Ave  
     Philadelphia, Pennsylvania, 19145  
**E-mail**                                 msds@PES-Companies.com  
**Emergency phone number**  
**24 Hours**                              (215) 339-5400  
**Information**  
**Product Safety Information**    (215) 339-2000

## 2. Hazard(s) identification

<b>Physical hazards</b>	Flammable liquids	Category 2
<b>Health hazards</b>	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Germ cell mutagenicity	Category 1B
	Carcinogenicity	Category 1B
	Reproductive toxicity	Category 2
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Aspiration hazard	Category 1
<b>Environmental hazards</b>	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 2
<b>OSHA defined hazards</b>	Not classified.	

#### Label elements



**Signal word**                            Danger

**Hazard statement**                Highly flammable liquid and vapor. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. May cause genetic defects. May cause cancer. Suspected of damaging fertility or the unborn child. Toxic to aquatic life with long lasting effects.

**Precautionary statement**

**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/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 mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

<b>Response</b>	If swallowed: Immediately call a poison center/doctor. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. Specific treatment (see this label). Do NOT induce vomiting. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish. Collect spillage.
<b>Storage</b>	Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

### 3. Composition/information on ingredients

#### Substances

Chemical name	Common name and synonyms	CAS number	%
Light Petroleum Distillate		8006-61-9	99.9

#### Constituents

Chemical name	CAS number	%
Toluene	108-88-3	0 - 30
Xylene	1330-20-7	0 - 25
Ethanol	64-17-5	10
Cyclohexane	110-82-7	0 - 9
n-Hexane	110-54-3	0 - 5
Ethylbenzene	100-41-4	0 - 5
Naphthalene	91-20-3	0 - 5
1,2,4-Trimethylbenzene	95-63-6	0 - 5
Benzene	71-43-2	0.1 - 1.3
Cumene	98-82-8	0 - 1

**Composition comments** Occupational Exposure Limits for constituents are listed in Section 8.

### 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately.
<b>Most important symptoms/effects, acute and delayed</b>	Convulsions. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

### 5. Fire-fighting measures

**Suitable extinguishing media** Water fog. Foam. Carbon dioxide (CO2). Dry chemical powder.

<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	Highly flammable liquid and vapor.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water.  Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent product from entering drains. Following product recovery, flush area with water.  Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
<b>Environmental precautions</b>	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases. Use appropriate containment to avoid environmental contamination.

## 7. Handling and storage

### Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code".

### Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Constituents	Type	Value
Benzene (CAS 71-43-2)	STEL	5 ppm
	TWA	1 ppm

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Constituents	Type	Value
Cumene (CAS 98-82-8)	PEL	245 mg/m <sup>3</sup>
		50 ppm
Ethanol (CAS 64-17-5)	PEL	1900 mg/m <sup>3</sup>
		1000 ppm
Xylene (CAS 1330-20-7)	PEL	435 mg/m <sup>3</sup>
		100 ppm
n-Hexane (CAS 110-54-3)	PEL	1800 mg/m <sup>3</sup>
		500 ppm
Ethylbenzene (CAS 100-41-4)	PEL	435 mg/m <sup>3</sup>
		100 ppm
Naphthalene (CAS 91-20-3)	PEL	50 mg/m <sup>3</sup>
		10 ppm
Cyclohexane (CAS 110-82-7)	PEL	1050 mg/m <sup>3</sup>
		300 ppm

#### US. OSHA Table Z-2 (29 CFR 1910.1000)

Constituents	Type	Value
Benzene (CAS 71-43-2)	Ceiling	25 ppm
	TWA	10 ppm
Toluene (CAS 108-88-3)	Ceiling	300 ppm
	TWA	200 ppm

**US. ACGIH Threshold Limit Values**

Constituents	Type	Value
Cumene (CAS 98-82-8)	TWA	50 ppm
Benzene (CAS 71-43-2)	STEL	2.5 ppm
	TWA	0.5 ppm
Ethanol (CAS 64-17-5)	STEL	1000 ppm
Xylene (CAS 1330-20-7)	STEL	150 ppm
	TWA	100 ppm
Toluene (CAS 108-88-3)	TWA	20 ppm
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	25 ppm
n-Hexane (CAS 110-54-3)	TWA	50 ppm
Ethylbenzene (CAS 100-41-4)	TWA	20 ppm
Naphthalene (CAS 91-20-3)	TWA	10 ppm
Cyclohexane (CAS 110-82-7)	TWA	100 ppm

**US. NIOSH: Pocket Guide to Chemical Hazards**

Constituents	Type	Value
Cumene (CAS 98-82-8)	TWA	245 mg/m3
		50 ppm
Benzene (CAS 71-43-2)	STEL	1 ppm
	TWA	0.1 ppm
Ethanol (CAS 64-17-5)	TWA	1900 mg/m3
		1000 ppm
Xylene (CAS 1330-20-7)	STEL	655 mg/m3
		150 ppm
	TWA	435 mg/m3
		100 ppm
Toluene (CAS 108-88-3)	STEL	560 mg/m3
		150 ppm
	TWA	375 mg/m3
		100 ppm
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	125 mg/m3
		25 ppm
n-Hexane (CAS 110-54-3)	TWA	180 mg/m3
		50 ppm
Ethylbenzene (CAS 100-41-4)	STEL	545 mg/m3
		125 ppm
	TWA	435 mg/m3
		100 ppm
Naphthalene (CAS 91-20-3)	STEL	75 mg/m3
		15 ppm
	TWA	50 mg/m3
		10 ppm
Cyclohexane (CAS 110-82-7)	TWA	1050 mg/m3
		300 ppm

**Biological limit values****ACGIH Biological Exposure Indices**

Constituents	Value	Determinant	Specimen	Sampling Time
Benzene (CAS 71-43-2)	25 µg/g	S-Phenylmercapturic acid	Creatinine in urine	*
Xylene (CAS 1330-20-7)	1.5 g/g	Methylhippuric acids	Creatinine in urine	*
Toluene (CAS 108-88-3)	0.3 mg/g	o-Cresol, with hydrolysis	Creatinine in urine	*

## ACGIH Biological Exposure Indices

Constituents	Value	Determinant	Specimen	Sampling Time
n-Hexane (CAS 110-54-3)	0.03 mg/l	Toluene	Urine	*
	0.02 mg/l	Toluene	Blood	*
	0.4 mg/l	2,5-Hexanedio n, without hydrolysis	Urine	*
Ethylbenzene (CAS 100-41-4)	0.15 g/g	Sum of mandelic acid and phenylglyoxylic acid	Creatinine in urine	*

\* - For sampling details, please see the source document.

### Exposure guidelines

#### US - California OELs: Skin designation

Benzene (CAS 71-43-2)	Can be absorbed through the skin.
Cumene (CAS 98-82-8)	Can be absorbed through the skin.
n-Hexane (CAS 110-54-3)	Can be absorbed through the skin.
Toluene (CAS 108-88-3)	Can be absorbed through the skin.

#### US - Minnesota Haz Subs: Skin designation applies

Cumene (CAS 98-82-8)	Skin designation applies.
Toluene (CAS 108-88-3)	Skin designation applies.

#### US - Tennessee OELs: Skin designation

Cumene (CAS 98-82-8)	Can be absorbed through the skin.
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#### US ACGIH Threshold Limit Values: Skin designation

Benzene (CAS 71-43-2)	Can be absorbed through the skin.
Naphthalene (CAS 91-20-3)	Can be absorbed through the skin.
n-Hexane (CAS 110-54-3)	Can be absorbed through the skin.

#### US. NIOSH: Pocket Guide to Chemical Hazards

Cumene (CAS 98-82-8)	Can be absorbed through the skin.
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#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Cumene (CAS 98-82-8)	Can be absorbed through the skin.
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#### Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

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

**Eye/face protection** Wear safety glasses with side shields (or goggles).

#### Skin protection

**Hand protection** Wear appropriate chemical resistant gloves.

**Other** Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

**Respiratory protection** Chemical respirator with organic vapor cartridge and full facepiece.

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

#### General hygiene considerations

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

**Physical state** Liquid.

**Form** Liquid.

**Color** Clear.

**Odor** Gasoline.

**Odor threshold** 15 ppm

**pH** Not available.



<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	100 - 430 °F (37.78 - 221.11 °C)
<b>Flash point</b>	-40.0 °F (-40.0 °C)
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.

#### Upper/lower flammability or explosive limits

<b>Flammability limit - lower (%)</b>	1.5
<b>Flammability limit - upper (%)</b>	7.6
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	325 - 525 mm Hg @ 20 °C
<b>Relative density</b>	0.74
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Nil to 15%
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	> 536 °F (> 280 °C)
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Percent volatile</b>	100

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents. Alkaline materials. Halogens. Halogenated compounds.
<b>Hazardous decomposition products</b>	Carbon oxides.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	May cause drowsiness and dizziness. Headache. Nausea, vomiting.
<b>Skin contact</b>	Causes skin irritation.
<b>Eye contact</b>	Causes serious eye irritation.
<b>Ingestion</b>	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

**Symptoms related to the physical, chemical and toxicological characteristics** Convulsions. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

### Information on toxicological effects

**Acute toxicity** May be fatal if swallowed and enters airways. Narcotic effects.

**Toxicological data**

<b>Constituents</b>	<b>Species</b>	<b>Test Results</b>
Cumene (CAS 98-82-8)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 3160 mg/kg, 24 Hours
<i>Inhalation</i>		
LC50	Rat	8000 ppm, 4 Hours
<i>Oral</i>		
LD50	Rat	2910 mg/kg
Benzene (CAS 71-43-2)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	930 mg/kg
Ethanol (CAS 64-17-5)		
<b>Acute</b>		
<i>Inhalation</i>		
LC50	Rat	30000 mg/m <sup>3</sup>
Xylene (CAS 1330-20-7)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	12126 mg/kg, 24 Hours
<i>Inhalation</i>		
LC50	Rat	6350 ppm, 4 Hours
<i>Oral</i>		
LD50	Rat	3523 mg/kg
Toluene (CAS 108-88-3)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	14.1 ml/kg
<i>Inhalation</i>		
LC50	Rat	49000 mg/m <sup>3</sup> , 4 Hours
<i>Oral</i>		
LD50	Rat	636 mg/kg
1,2,4-Trimethylbenzene (CAS 95-63-6)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 3160 mg/kg
<i>Inhalation</i>		
LC50	Rat	18000 mg/m <sup>3</sup> , 4 hours
Ethylbenzene (CAS 100-41-4)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	15400 mg/kg
<i>Inhalation</i>		
LC50	Rat	17.4 mg/m <sup>3</sup> , 4 Hours
<i>Oral</i>		
LD50	Rat	35000 - 47000 mg/kg
Naphthalene (CAS 91-20-3)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 2 g/kg

Constituents	Species	Test Results
Oral LD50	Rat	490 mg/kg
Cyclohexane (CAS 110-82-7)		
<b>Acute</b>		
Oral LD50	Rat	12705 mg/kg

\* Estimates for product may be based on additional component data not shown.

**Skin corrosion/irritation** Causes skin irritation.

**Serious eye damage/eye irritation** Causes serious eye irritation.

**Respiratory or skin sensitization**

**Respiratory sensitization** Not a respiratory sensitizer.

**Skin sensitization** This product is not expected to cause skin sensitization.

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

**Carcinogenicity** May cause cancer.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Benzene (CAS 71-43-2)	1 Carcinogenic to humans.
Cumene (CAS 98-82-8)	2B Possibly carcinogenic to humans.
Ethylbenzene (CAS 100-41-4)	2B Possibly carcinogenic to humans.
Light Petroleum Distillate (CAS 8006-61-9)	2B Possibly carcinogenic to humans.
Naphthalene (CAS 91-20-3)	2B Possibly carcinogenic to humans.
Toluene (CAS 108-88-3)	3 Not classifiable as to carcinogenicity to humans.
Xylene (CAS 1330-20-7)	3 Not classifiable as to carcinogenicity to humans.

**NTP Report on Carcinogens**

Benzene (CAS 71-43-2)	Known To Be Human Carcinogen.
Naphthalene (CAS 91-20-3)	Reasonably Anticipated to be a Human Carcinogen.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Benzene (CAS 71-43-2)	Cancer
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**Reproductive toxicity** Suspected of damaging fertility or the unborn child.

**Specific target organ toxicity - single exposure** May cause drowsiness and dizziness.

**Specific target organ toxicity - repeated exposure** Not classified.

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

**Chronic effects** Prolonged exposure may cause chronic effects.

**12. Ecological information**

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

Constituents	Species	Test Results
Cumene (CAS 98-82-8)		
<b>Aquatic</b>		
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss) 2.7 mg/l, 96 hours
Toluene (CAS 108-88-3)		
<b>Aquatic</b>		
Crustacea	EC50	Water flea (Daphnia magna) 5.46 - 9.83 mg/l, 48 hours
Fish	LC50	Pink salmon (Oncorhynchus gorbuscha) 6.86 - 8.48 mg/l, 96 hours
1,2,4-Trimethylbenzene (CAS 95-63-6)		
<b>Aquatic</b>		
Fish	LC50	Fathead minnow (Pimephales promelas) 7.19 - 8.28 mg/l, 96 hours

Constituents	Species		Test Results
Ethylbenzene (CAS 100-41-4)			
<b>Aquatic</b>			
Crustacea	EC50	Daphnia	1.81 mg/l, 48 hours
Fish	LC50	Bluegill (Lepomis macrochirus)	32 - 88 mg/l, 96 hours
		Fathead minnow (Pimephales promelas)	12.1 mg/l, 96 hours
Naphthalene (CAS 91-20-3)			
<b>Aquatic</b>			
Crustacea	EC50	Water flea (Daphnia magna)	1.09 - 3.4 mg/l, 48 hours
Fish	LC50	Pink salmon (Oncorhynchus gorbuscha)	0.95 - 1.62 mg/l, 96 hours
Cyclohexane (CAS 110-82-7)			
<b>Aquatic</b>			
Fish	LC50	Fathead minnow (Pimephales promelas)	3.961 - 5.181 mg/l, 96 hours

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential**

**Mobility in soil** Expected to be slightly to moderately mobile in soil.

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

#### US RCRA Hazardous Waste U List: Reference

Benzene (CAS 71-43-2)	U019
Cumene (CAS 98-82-8)	U055
Cyclohexane (CAS 110-82-7)	U056
Naphthalene (CAS 91-20-3)	U165
Toluene (CAS 108-88-3)	U220
Xylene (CAS 1330-20-7)	U239

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

### 14. Transport information

#### DOT

<b>UN number</b>	UN3475
<b>UN proper shipping name</b>	Ethanol and gasoline mixture
<b>Transport hazard class(es)</b>	
<b>Class</b>	3
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	3
<b>Packing group</b>	II
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	Yes
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Special provisions</b>	144, 177, IB2, T4, TP1
<b>Packaging exceptions</b>	150
<b>Packaging non bulk</b>	202
<b>Packaging bulk</b>	242

**IATA**

**UN number** UN3475  
**UN proper shipping name** Ethanol and petrol mixture  
**Transport hazard class(es)**  
**Class** 3  
**Subsidiary risk** -  
**Label(s)** 3  
**Packing group** II  
**Environmental hazards** Yes  
**ERG Code** 3L  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**IMDG**

**UN number** UN3475  
**UN proper shipping name** ETHANOL AND GASOLINE MIXTURE  
**Transport hazard class(es)**  
**Class** 3  
**Subsidiary risk** -  
**Label(s)** 3  
**Packing group** II  
**Environmental hazards**  
**Marine pollutant** Yes  
**EmS** F-E, S-E  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not available.

**15. Regulatory information**

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
 All components are on the U.S. EPA TSCA Inventory List.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Benzene (CAS 71-43-2)	Cancer
	Central nervous system
	Blood
	Aspiration
	Skin
	Eye
	respiratory tract irritation
	Flammability

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Benzene (CAS 71-43-2)	LISTED
Cumene (CAS 98-82-8)	LISTED
Cyclohexane (CAS 110-82-7)	LISTED
Ethanol (CAS 64-17-5)	LISTED
Ethylbenzene (CAS 100-41-4)	LISTED
Light Petroleum Distillate (CAS 8006-61-9)	LISTED
Naphthalene (CAS 91-20-3)	LISTED
n-Hexane (CAS 110-54-3)	LISTED
Toluene (CAS 108-88-3)	LISTED
Xylene (CAS 1330-20-7)	LISTED

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

<b>Hazard categories</b>	Immediate Hazard - Yes
	Delayed Hazard - Yes
	Fire Hazard - Yes
	Pressure Hazard - No
	Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** Yes**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
Toluene	108-88-3	0 - 30
Xylene	1330-20-7	0 - 25
Cyclohexane	110-82-7	0 - 9
Ethylbenzene	100-41-4	0 - 5
n-Hexane	110-54-3	0 - 5
Naphthalene	91-20-3	0 - 5
1,2,4-Trimethylbenzene	95-63-6	0 - 5
Benzene	71-43-2	0.1 - 1.3
Cumene	98-82-8	0 - 1

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Benzene (CAS 71-43-2)  
 Cumene (CAS 98-82-8)  
 Ethylbenzene (CAS 100-41-4)  
 Naphthalene (CAS 91-20-3)  
 n-Hexane (CAS 110-54-3)  
 Toluene (CAS 108-88-3)  
 Xylene (CAS 1330-20-7)

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number**

Toluene (CAS 108-88-3) 6594

**Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**

Toluene (CAS 108-88-3) 35 %WV

**DEA Exempt Chemical Mixtures Code Number**

Toluene (CAS 108-88-3) 594

**US state regulations****US. Massachusetts RTK - Substance List**

1,2,4-Trimethylbenzene (CAS 95-63-6)  
 Benzene (CAS 71-43-2)  
 Cumene (CAS 98-82-8)  
 Cyclohexane (CAS 110-82-7)  
 Ethanol (CAS 64-17-5)  
 Ethylbenzene (CAS 100-41-4)  
 Light Petroleum Distillate (CAS 8006-61-9)  
 Naphthalene (CAS 91-20-3)  
 n-Hexane (CAS 110-54-3)  
 Toluene (CAS 108-88-3)  
 Xylene (CAS 1330-20-7)

**US. New Jersey Worker and Community Right-to-Know Act**

1,2,4-Trimethylbenzene (CAS 95-63-6)  
 Benzene (CAS 71-43-2)  
 Cumene (CAS 98-82-8)  
 Cyclohexane (CAS 110-82-7)  
 Ethanol (CAS 64-17-5)  
 Ethylbenzene (CAS 100-41-4)  
 Light Petroleum Distillate (CAS 8006-61-9)  
 Naphthalene (CAS 91-20-3)  
 n-Hexane (CAS 110-54-3)  
 Toluene (CAS 108-88-3)  
 Xylene (CAS 1330-20-7)

## US. Pennsylvania Worker and Community Right-to-Know Law

1,2,4-Trimethylbenzene (CAS 95-63-6)  
Benzene (CAS 71-43-2)  
Cumene (CAS 98-82-8)  
Cyclohexane (CAS 110-82-7)  
Ethanol (CAS 64-17-5)  
Ethylbenzene (CAS 100-41-4)  
Naphthalene (CAS 91-20-3)  
n-Hexane (CAS 110-54-3)  
Toluene (CAS 108-88-3)  
Xylene (CAS 1330-20-7)

## US. Rhode Island RTK

1,2,4-Trimethylbenzene (CAS 95-63-6)  
Benzene (CAS 71-43-2)  
Cumene (CAS 98-82-8)  
Cyclohexane (CAS 110-82-7)  
Ethylbenzene (CAS 100-41-4)  
Naphthalene (CAS 91-20-3)  
n-Hexane (CAS 110-54-3)  
Toluene (CAS 108-88-3)  
Xylene (CAS 1330-20-7)

## US. California Proposition 65

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

### US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Benzene (CAS 71-43-2)  
Cumene (CAS 98-82-8)  
Ethylbenzene (CAS 100-41-4)  
Naphthalene (CAS 91-20-3)  
Toluene (CAS 108-88-3)

## International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information, including date of preparation or last revision

Issue date	17-June-2015
Revision date	-
Version #	01
HMIS® ratings	Health: 2* Flammability: 3 Physical hazard: 0

**NFPA ratings****Disclaimer**

Philadelphia Energy Solutions cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.



## 1. Identification

**Product identifier** ULSD #2 15 MOTOR VEHICLE  
**Other means of identification** None.  
**Recommended use** Diesel fuel.  
**Recommended restrictions** None known.

### Manufacturer/Importer/Supplier/Distributor information

#### Manufacturer

**Company name** Philadelphia Energy Solutions  
**Address** 3144 W. Passyunk Ave  
 Philadelphia, Pennsylvania, 19145  
**E-mail** msds@PES-Companies.com  
**Emergency phone number**  
**24 Hours Information** (215) 339-5400  
**Product Safety Information** (215) 339-2000

## 2. Hazard(s) identification

<b>Physical hazards</b>	Flammable liquids	Category 3
<b>Health hazards</b>	Acute toxicity, inhalation	Category 4
	Skin corrosion/irritation	Category 2
	Carcinogenicity	Category 2
	Specific target organ toxicity, repeated exposure	Category 2 (blood, liver, thymus)
	Aspiration hazard	Category 1
<b>Environmental hazards</b>	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 2
<b>OSHA defined hazards</b>	Not classified.	

#### Label elements



**Signal word** Danger  
**Hazard statement** Flammable liquid and vapor. May be fatal if swallowed and enters airways. Causes skin irritation. Harmful if inhaled. Suspected of causing cancer. May cause damage to organs (blood, liver, thymus) through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects.

#### Precautionary statement

**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/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

<b>Response</b>	If swallowed: Immediately call a poison center/doctor. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. If exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. Do NOT induce vomiting. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish. Collect spillage.
<b>Storage</b>	Store in a well-ventilated place. Keep cool. Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	Static Accumulating Liquid. Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment.

### 3. Composition/information on ingredients

#### Substances

Chemical name	Common name and synonyms	CAS number	%
Fuels, diesel, no. 2		68476-34-6	100

#### Constituents

Chemical name	CAS number	%
1,2,4-Trimethylbenzene	95-63-6	0 - 2
Naphthalene	91-20-3	0 - 2
Cumene	98-82-8	0 - 1
Ethylbenzene	100-41-4	0 - 1
Xylene	1330-20-7	0 - 1

**Composition comments** Occupational Exposure Limits for constituents are listed in Section 8.

### 4. First-aid measures

<b>Inhalation</b>	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
<b>Most important symptoms/effects, acute and delayed</b>	Aspiration may cause pulmonary edema and pneumonitis. Direct contact with eyes may cause temporary irritation. Skin irritation.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical**

Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.

**Special protective equipment and precautions for firefighters**

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Fire fighting equipment/instructions**

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

**Specific methods**

Use standard firefighting procedures and consider the hazards of other involved materials.

**General fire hazards**

Flammable liquid and vapor.

**6. Accidental release measures**

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

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**Methods and materials for containment and cleaning up**

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. The product is immiscible with water and will spread on the water surface. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

**Environmental precautions**

Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

**7. Handling and storage**

**Precautions for safe handling**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code".

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

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

**8. Exposure controls/personal protection****Occupational exposure limits****US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Constituents	Type	Value
Cumene (CAS 98-82-8)	PEL	245 mg/m3 50 ppm
Ethylbenzene (CAS 100-41-4)	PEL	435 mg/m3 100 ppm
Xylene (CAS 1330-20-7)	PEL	435 mg/m3 100 ppm
Naphthalene (CAS 91-20-3)	PEL	50 mg/m3 10 ppm

**US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Fuels, diesel, no. 2 (CAS 68476-34-6)	TWA	100 mg/m3	Inhalable fraction and vapor.
Constituents	Type	Value	
Cumene (CAS 98-82-8)	TWA	50 ppm	
Ethylbenzene (CAS 100-41-4)	TWA	20 ppm	
Xylene (CAS 1330-20-7)	STEL	150 ppm	
	TWA	100 ppm	
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	25 ppm	
Naphthalene (CAS 91-20-3)	TWA	10 ppm	

**US. NIOSH: Pocket Guide to Chemical Hazards**

Constituents	Type	Value
Cumene (CAS 98-82-8)	TWA	245 mg/m3 50 ppm
Ethylbenzene (CAS 100-41-4)	STEL	545 mg/m3 125 ppm
	TWA	435 mg/m3 100 ppm
Xylene (CAS 1330-20-7)	STEL	655 mg/m3 150 ppm
	TWA	435 mg/m3 100 ppm
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	125 mg/m3 25 ppm
Naphthalene (CAS 91-20-3)	STEL	75 mg/m3 15 ppm
	TWA	50 mg/m3 10 ppm

## Biological limit values

### ACGIH Biological Exposure Indices

Constituents	Value	Determinant	Specimen	Sampling Time
Ethylbenzene (CAS 100-41-4)	0.15 g/g	Sum of mandelic acid and phenylglyoxylic acid	Creatinine in urine	*
Xylene (CAS 1330-20-7)	1.5 g/g	Methylhippuric acids	Creatinine in urine	*

\* - For sampling details, please see the source document.

### Exposure guidelines

#### US - California OELs: Skin designation

Cumene (CAS 98-82-8)

Can be absorbed through the skin.

#### US - Minnesota Haz Subs: Skin designation applies

Cumene (CAS 98-82-8)

Skin designation applies.

#### US - Tennessee OELs: Skin designation

Cumene (CAS 98-82-8)

Can be absorbed through the skin.

#### US ACGIH Threshold Limit Values: Skin designation

Fuels, diesel, no. 2 (CAS 68476-34-6)

Can be absorbed through the skin.

Naphthalene (CAS 91-20-3)

Can be absorbed through the skin.

#### US. NIOSH: Pocket Guide to Chemical Hazards

Cumene (CAS 98-82-8)

Can be absorbed through the skin.

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Cumene (CAS 98-82-8)

Can be absorbed through the skin.

### Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

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

#### Eye/face protection

Chemical respirator with organic vapor cartridge and full facepiece.

#### Skin protection

##### Hand protection

Wear appropriate chemical resistant gloves.

##### Other

Wear suitable protective clothing. Use of an impervious apron is recommended.

#### Respiratory protection

Chemical respirator with organic vapor cartridge and full facepiece.

#### Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

### General hygiene considerations

When using do not smoke. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

#### Physical state

Liquid.

#### Form

Liquid.

#### Color

Light amber.

#### Odor

Kerosene-like.

#### Odor threshold

Not available.

#### pH

Not available.

#### Melting point/freezing point

Not available.

#### Initial boiling point and boiling range

Not available.

#### Flash point

125.0 - 150.0 °F (51.7 - 65.6 °C) Pensky-Martens Closed Cup

#### Evaporation rate

Not available.

#### Flammability (solid, gas)

Not available.

### Upper/lower flammability or explosive limits

Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.

Vapor pressure	1.6 mm Hg
Vapor density	Not available.
Relative density	0.87
Solubility(ies)	
Solubility (water)	Insoluble in water.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	500 °F (260 °C)
Decomposition temperature	Not available.
Viscosity	1.9 cSt

## 10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

Inhalation	Harmful if inhaled. May cause damage to organs through prolonged or repeated exposure by inhalation.
Skin contact	Causes skin irritation.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics	Aspiration may cause pulmonary edema and pneumonitis. Direct contact with eyes may cause temporary irritation. Skin irritation.
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### Information on toxicological effects

Acute toxicity	May be fatal if swallowed and enters airways. Harmful if inhaled. Causes skin irritation.
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Components	Species	Test Results
Fuels, diesel, no. 2 (CAS 68476-34-6)		
<b>Acute</b>		
<i>Inhalation</i>		
LC50	Rat	4.1 mg/l, 4 hours
Constituents	Species	Test Results
Cumene (CAS 98-82-8)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 3160 mg/kg, 24 Hours

Constituents	Species	Test Results
<i>Inhalation</i> LC50	Rat	8000 ppm, 4 Hours
<i>Oral</i> LD50	Rat	2910 mg/kg
Ethylbenzene (CAS 100-41-4)		
<b>Acute</b>		
<i>Dermal</i> LD50	Rabbit	15400 mg/kg
<i>Inhalation</i> LC50	Rat	17.4 mg/m <sup>3</sup> , 4 Hours
<i>Oral</i> LD50	Rat	35000 - 47000 mg/kg
Xylene (CAS 1330-20-7)		
<b>Acute</b>		
<i>Dermal</i> LD50	Rabbit	12126 mg/kg, 24 Hours
<i>Inhalation</i> LC50	Rat	6350 ppm, 4 Hours
<i>Oral</i> LD50	Rat	3523 mg/kg
1,2,4-Trimethylbenzene (CAS 95-63-6)		
<b>Acute</b>		
<i>Dermal</i> LD50	Rabbit	> 3160 mg/kg
<i>Inhalation</i> LC50	Rat	18000 mg/m <sup>3</sup> , 4 hours
Naphthalene (CAS 91-20-3)		
<b>Acute</b>		
<i>Dermal</i> LD50	Rabbit	> 2 g/kg
<i>Oral</i> LD50	Rat	490 mg/kg
<b>Skin corrosion/irritation</b>	Causes skin irritation.	
<b>Serious eye damage/eye irritation</b>	Direct contact with eyes may cause temporary irritation.	
<b>Respiratory or skin sensitization</b>		
<b>Respiratory sensitization</b>	Not a respiratory sensitizer.	
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.	
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
<b>Carcinogenicity</b>	Suspected of causing cancer.	
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>		
Cumene (CAS 98-82-8)	2B Possibly carcinogenic to humans.	
Ethylbenzene (CAS 100-41-4)	2B Possibly carcinogenic to humans.	
Fuels, diesel, no. 2 (CAS 68476-34-6)	3 Not classifiable as to carcinogenicity to humans.	
Naphthalene (CAS 91-20-3)	2B Possibly carcinogenic to humans.	
Xylene (CAS 1330-20-7)	3 Not classifiable as to carcinogenicity to humans.	
<b>NTP Report on Carcinogens</b>		
Naphthalene (CAS 91-20-3)	Reasonably Anticipated to be a Human Carcinogen.	
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>		
Not listed.		
<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.	

<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	May cause damage to organs (blood, liver, thymus) through prolonged or repeated exposure.
<b>Aspiration hazard</b>	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.
<b>Chronic effects</b>	May cause damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful.

## 12. Ecological information

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

Components	Species	Test Results
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Fuels, diesel, no. 2 (CAS 68476-34-6)

### Aquatic

#### Acute

Crustacea	EL50	Daphnia magna	68 mg/l, 48 hours
Fish	LL50	Oncorhynchus mykiss	65 mg/l, 96 hours

### Constituents

### Species

### Test Results

Cumene (CAS 98-82-8)

### Aquatic

Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	2.7 mg/l, 96 hours
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Ethylbenzene (CAS 100-41-4)

### Aquatic

Crustacea	EC50	Daphnia	1.81 mg/l, 48 hours
Fish	LC50	Bluegill (Lepomis macrochirus)	32 - 88 mg/l, 96 hours
		Fathead minnow (Pimephales promelas)	12.1 mg/l, 96 hours

1,2,4-Trimethylbenzene (CAS 95-63-6)

### Aquatic

Fish	LC50	Fathead minnow (Pimephales promelas)	7.19 - 8.28 mg/l, 96 hours
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Naphthalene (CAS 91-20-3)

### Aquatic

Crustacea	EC50	Water flea (Daphnia magna)	1.09 - 3.4 mg/l, 48 hours
Fish	LC50	Pink salmon (Oncorhynchus gorbuscha)	0.95 - 1.62 mg/l, 96 hours

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential**

**Mobility in soil** Expected to be mobile in soil.

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

### US RCRA Hazardous Waste U List: Reference

Cumene (CAS 98-82-8)	U055
Naphthalene (CAS 91-20-3)	U165
Xylene (CAS 1330-20-7)	U239

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).



**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transport information

### DOT

<b>UN number</b>	UN1202
<b>UN proper shipping name</b>	Gas oil
<b>Transport hazard class(es)</b>	
<b>Class</b>	3
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	3
<b>Packing group</b>	III
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	Yes
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Special provisions</b>	144, B1, IB3, T2, TP1
<b>Packaging exceptions</b>	150
<b>Packaging non bulk</b>	203
<b>Packaging bulk</b>	242

### IATA

<b>UN number</b>	UN1202
<b>UN proper shipping name</b>	Gas oil
<b>Transport hazard class(es)</b>	
<b>Class</b>	3
<b>Subsidiary risk</b>	-
<b>Packing group</b>	III
<b>Environmental hazards</b>	No.
<b>ERG Code</b>	3L
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

### IMDG

<b>UN number</b>	UN1202
<b>UN proper shipping name</b>	Gas oil
<b>Transport hazard class(es)</b>	
<b>Class</b>	3
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	3
<b>Packing group</b>	III
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	Yes
<b>EmS</b>	Not available.
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not established.

**General information** DOT Regulated Marine Pollutant. IMDG Regulated Marine Pollutant.

## 15. Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
All components are on the U.S. EPA TSCA Inventory List.

### **TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

### **OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

### **CERCLA Hazardous Substance List (40 CFR 302.4)**

Cumene (CAS 98-82-8)	LISTED
Ethylbenzene (CAS 100-41-4)	LISTED
Naphthalene (CAS 91-20-3)	LISTED
Xylene (CAS 1330-20-7)	LISTED

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - Yes  
 Delayed Hazard - Yes  
 Fire Hazard - Yes  
 Pressure Hazard - No  
 Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** Yes

**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
Xylene	1330-20-7	0 - 1
Ethylbenzene	100-41-4	0 - 1
Cumene	98-82-8	0 - 1
Naphthalene	91-20-3	0 - 2
1,2,4-Trimethylbenzene	95-63-6	0 - 2

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Cumene (CAS 98-82-8)  
 Ethylbenzene (CAS 100-41-4)  
 Naphthalene (CAS 91-20-3)  
 Xylene (CAS 1330-20-7)

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**US state regulations****US. Massachusetts RTK - Substance List**

1,2,4-Trimethylbenzene (CAS 95-63-6)  
 Cumene (CAS 98-82-8)  
 Ethylbenzene (CAS 100-41-4)  
 Naphthalene (CAS 91-20-3)  
 Xylene (CAS 1330-20-7)

**US. New Jersey Worker and Community Right-to-Know Act**

1,2,4-Trimethylbenzene (CAS 95-63-6)  
 Cumene (CAS 98-82-8)  
 Ethylbenzene (CAS 100-41-4)  
 Fuels, diesel, no. 2 (CAS 68476-34-6)  
 Naphthalene (CAS 91-20-3)  
 Xylene (CAS 1330-20-7)

**US. Pennsylvania Worker and Community Right-to-Know Law**

1,2,4-Trimethylbenzene (CAS 95-63-6)  
 Cumene (CAS 98-82-8)  
 Ethylbenzene (CAS 100-41-4)  
 Fuels, diesel, no. 2 (CAS 68476-34-6)  
 Naphthalene (CAS 91-20-3)  
 Xylene (CAS 1330-20-7)

**US. Rhode Island RTK**

1,2,4-Trimethylbenzene (CAS 95-63-6)  
 Cumene (CAS 98-82-8)  
 Ethylbenzene (CAS 100-41-4)  
 Naphthalene (CAS 91-20-3)  
 Xylene (CAS 1330-20-7)

**US. California Proposition 65**

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

**US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**

Cumene (CAS 98-82-8)  
 Ethylbenzene (CAS 100-41-4)

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

<b>Issue date</b>	10-June-2015
<b>Revision date</b>	-
<b>Version #</b>	01
<b>HMIS® ratings</b>	Health: 2* Flammability: 2 Physical hazard: 0

**NFPA ratings****Disclaimer**

Philadelphia Energy Solutions cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.



## MATERIAL SAFETY DATA SHEET

### 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

**Product Name:** ULSD #1 15MV-SP\*

**Manufacturer Information:**

Philadelphia Energy Solutions  
1735 Market Street LL

Philadelphia, Pennsylvania, 19103-7583

**Product Use:**

Diesel fuel

**Emergency Phone Numbers:**

Chemtrec (800) 424-9300 24 Hours

### 2. HAZARDS IDENTIFICATION

• **EMERGENCY OVERVIEW**

Danger! Combustible liquid and vapor. Vapors may cause flash fire or explosion. Static accumulator. May form an ignitable vapor/air mixture. High vapor concentrations may cause drowsiness. May cause skin irritation. Harmful or fatal if swallowed. Pulmonary aspiration hazard. While ingesting or vomiting, may enter lungs and produce damage. Contains material or materials that may cause cancer based on animal data.

**Hazards Ratings:**

*Key: 0 = least, 1 = slight, 2 = moderate, 3 = high, 4 = extreme*

	<u>Health</u>	<u>Fire</u>	<u>Reactivity</u>	<u>PPI</u>
NFPA	2	2	0	
HMIS	2	2	0	x

• **POTENTIAL HEALTH EFFECTS**

▪ **INHALATION**

High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis and loss of consciousness and even death). High vapor concentrations are irritating to the eyes, nose, throat, and lungs. Intentional misuse (sniffing) can cause damage to the brain, liver and kidneys and may cause sudden death.

▪ **SKIN**

Practically non-toxic if absorbed through the skin. Moderately irritating to the skin. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash). Contains a material that has caused skin tumors in laboratory animals.

▪ **EYES**

Mildly irritating to the eyes. Contact with the eye may cause redness, burning, tearing and/or blurred vision.

▪ **INGESTION**

Harmful or fatal if swallowed. Pulmonary aspiration hazard. While ingesting or vomiting, may enter lungs and produce damage.

▪ **PRE-EXISTING MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE**

The following diseases or disorders may be aggravated by exposure to this product: skin, eye, nervous system, respiratory system, lung (asthma-like conditions),

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

<b>Component</b>	<b>CAS No.</b>	<b>Amount (Vol%)</b>
HYDRODESULFURIZED KEROSENE	64742-81-0	99.7 - 100
NAPHTHALENE	91-20-3	0 - 2
XYLENE	1330-20-7	0 - 0.9
TOLUENE	108-88-3	0 - 0.3
ETHYL BENZENE	100-41-4	0 - 0.2
DIETHYLENE GLYCOL MONOETHYL ETHER	111-90-0	0 - 0.12
N-HEXANE	110-54-3	0 - 0.1
CUMENE	98-82-8	0 - 0.07

**EXPOSURE GUIDELINES (SEE SECTION 15 FOR ADDITIONAL EXPOSURE LIMITS)**

	<b>CAS No.</b>	<b>Governing Body</b>	<b>Exposure Limits</b>		
Limit for the product		ACGIH	TWA	100	ppm
CUMENE	98-82-8	ACGIH	TWA	50	ppm
CUMENE	98-82-8	OSHA	TWA	50	ppm
ETHYL BENZENE	100-41-4	ACGIH	TWA	20	ppm
ETHYL BENZENE	100-41-4	OSHA	TWA	100	ppm
N-HEXANE	110-54-3	ACGIH	TWA	50	ppm
N-HEXANE	110-54-3	OSHA	TWA	500	ppm
NAPHTHALENE	91-20-3	ACGIH	STEL	15	ppm
NAPHTHALENE	91-20-3	ACGIH	TWA	10	ppm
NAPHTHALENE	91-20-3	OSHA	TWA	10	ppm
TOLUENE	108-88-3	NIOSH	STEL	150	ppm
TOLUENE	108-88-3	ACGIH	TWA	20	ppm
TOLUENE	108-88-3	OSHA	TWA	200	ppm
XYLENE	1330-20-7	ACGIH	STEL	150	ppm
XYLENE	1330-20-7	ACGIH	TWA	100	ppm
XYLENE	1330-20-7	OSHA	TWA	100	ppm
HYDRODESULFURIZED KEROSENE	64742-81-0	ACGIH	TWA	200	mg/m3
HYDRODESULFURIZED KEROSENE	64742-81-0	ACGIH	TLV	30	ppm

**4. FIRST AID MEASURES**

• **INHALATION**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen and continue to monitor. Get immediate medical attention.

• **SKIN**

Wash with soap and water for 20 minutes. Get medical attention if irritation develops or persists. Wash clothing before reuse.

• **EYES**

Flush eye with water for 20 minutes. Get medical attention.

• **INGESTION**

Do not induce vomiting! Do not give liquids! Get medical attention immediately.

## **5. FIRE FIGHTING MEASURES**

- **EXTINGUISHING MEDIA**

Regular foam; Dry chemical; Carbon dioxide; Water may be ineffective.

- **FIRE FIGHTING INSTRUCTIONS**

Use water spray to cool fire exposed tanks and containers. Wear structural fire fighting gear. The use of fresh air equipment such as Self Contained Breathing Apparatus (SCBA) or Supplied Air Respirators should be worn for fire fighting if exposure or potential exposure to products of combustion is expected.

- **FLAMMABLE PROPERTIES**

Combustible liquid and vapor. STATIC ACCUMULATOR. This liquid may form an ignitable vapor-air mixture in closed tanks or containers.

	Typical	Minimum	Maximum	Text Result	Units	Method
Flash Point				125 min	F	PMCC
Autoignition Temperature				410 est	F	N/A
Lower Explosion Limit				No data	%	N/A
Upper Explosion Limit				No data	%	N/A

## **6. ACCIDENTAL RELEASE MEASURES**

Prevent ignition, stop leak and ventilate the area. Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Use appropriate personal protective equipment as stated in Section 8 of this MSDS. Advise the Environmental Protection Agency (EPA) and appropriate state agencies, if required. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Vacuum or sweep up material and place in a disposal container.

## **7. HANDLING AND STORAGE**

- **HANDLING**

Follow all MSDS/label precautions even after container is emptied because it may retain product residue. Use only in a well-ventilated area. STATIC ACCUMULATOR. This liquid may form an ignitable vapor-air mixture in closed tanks or containers. This liquid may accumulate static electricity even when transferred into properly grounded containers. Bonding and grounding may be insufficient to remove static electricity. Static electricity accumulation may be significantly increased by the presence of small quantities of water. Always bond receiving container to the fill pipe before and during loading, following NFPA-77 and/or API RP 2003 requirements. Automatic gauging devices and other floats in vessels or tanks which contain static accumulating liquids should be electrically bonded to the shell. Bonding and grounding alone may be inadequate to eliminate fire and explosion hazards associated with electrostatic charges. In addition to bonding and grounding, efforts to mitigate the hazards of an electrostatic discharge may include, but are not limited to, ventilation, inerting and/or reduction of transfer velocities. Always keep the nozzle in contact with the container throughout the loading process. Do not fill any portable containers in or on a vehicle. Special precautions, such as reduced loading rates and increased monitoring, must be observed during "switch loading" operations (i.e. loading this material in tanks or shipping compartments that previously contained middle distillates or similar products). Non-equilibrium conditions may increase the risks associated with static electricity such as tank and container filling, tank cleaning, sampling, gauging, loading, filtering, mixing, agitation, etc. Dissipation of electrostatic charges may be improved with the use of conductivity additives when used with other mitigating efforts, including bonding and grounding. Avoid breathing (dust, vapor, mist, gas). Avoid prolonged or repeated contact with skin. Avoid contact with eyes. Wash thoroughly after handling. Never siphon by mouth. "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, properly bunged, and promptly returned to a drum reconditioned, or properly disposed of.

- **STORAGE**

Keep away from heat, sparks, and flame. Keep container closed when not in use. Store in a cool place in original container and protect from sunlight. Outside or detached storage is preferred. NFPA class II storage. Flash point is greater than 100 degrees F and less than 140 degrees F.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Consult With a Health and Safety Professional for Specific Selections

- **ENGINEERING CONTROLS**

Use with adequate ventilation. Mechanical ventilation recommended. Good general ventilation should be sufficient to control airborne levels.

- **PERSONAL PROTECTION**

- **EYE PROTECTION**

Splash proof chemical goggles are recommended to protect against the splash of product.

- **GLOVES or HAND PROTECTION**

The glove(s) listed below may provide protection against permeation. Gloves of other chemically resistant materials may not provide adequate protection. Protective gloves are recommended to protect against contact with product. Polyvinyl chloride (PVC); Neoprene; Nitrile; Polyvinyl alcohol; Viton; Polyethylene;

- **RESPIRATORY PROTECTION**

Concentration in air determines the level of respiratory protection needed. Use only NIOSH certified respiratory equipment. Half-mask air purifying respirator with organic vapor cartridges is acceptable for exposures to ten (10) times the exposure limit. Full-face air purifying respirator with organic vapor cartridges is acceptable for exposures to fifty (50) times the exposure limit. Exposure should not exceed the cartridge limit of 1000 ppm. Protection by air purifying respirators is limited. Use a positive pressure-demand full-face supplied air respirator or SCBA for exposures greater than fifty (50) times the exposure limit. If exposure is above the IDLH (Immediately Dangerous to Life and Health) or there is the possibility of an uncontrolled release, or exposure levels are unknown, then use a positive pressure-demand full-face supplied air respirator with escape bottle or SCBA. Wear a NIOSH-approved (or equivalent) full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

- **OTHER**

Where splashing is possible, full chemically resistant protective clothing and boots are required. The following materials are acceptable for use as protective clothing: Polyvinyl alcohol (PVA); Polyvinyl chloride (PVC); Neoprene; Nitrile; Viton; Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Remove contaminated clothing and wash before reuse. For non-fire emergencies, positive pressure SCBA and structural firefighter's protective clothing will provide only limited protection.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical Property	Typical	Units	Text Result	Reference
Appearance		other	colorless fluid	
Boiling Point		F		
Bulk Density		lb/gal	No data	
Liquid Conductivity		ft <sup>2</sup>		
Melting Point		F	No data	
Molecular Weight		g/mole	No data	
Octanol/Water Coefficient		other	No data	
pH		other	No data	
Specific Gravity	0.81	other		
Solubility In Water		wt %	Nil	
Odor		other	Kerosene-like	
Odor Threshold		other	No data	
Vapor Pressure		mmHg	20 C	
Viscosity (F)		other	No data	
Viscosity (C)	8	CsT	-20 C	
% Volatile	100	wt %		

## **10. STABILITY AND REACTIVITY**

- **STABILITY**

Stable

- **CONDITIONS TO AVOID**

Avoid heat, sparks and open flame.

- **INCOMPATIBILITY**

The following materials are incompatible with this product: Strong oxidizers such as chlorine, peroxides, chromates, nitric acid, perchlorates, concentrated oxygen, sodium hypochlorite, calcium hypochlorite and permanganates.

Chlorine; Concentrated oxygen; Sodium hypochlorite; Calcium hypochlorite;

- **HAZARDOUS DECOMPOSITION PRODUCTS**

Combustion may produce carbon monoxide, carbon dioxide and other asphyxiants.

- **HAZARDOUS POLYMERIZATION**

Will not polymerize.

## **11. TOXICOLOGY INFORMATION**

### **Single Exposure Health Effects**

**Oral:**

LD50 (g/kg): No data

**Dermal:**

LD50 (mg/kg): No data

**Inhalation:**

LC50 (mg/l): No data

LC50 (mg/m<sup>3</sup>): No data

LC50 (ppm): No data

### **Component Toxicity Information**

Cumene may be harmful or fatal if swallowed. Pulmonary aspiration hazard. After ingestion, may enter lungs and cause damage. May cause respiratory irritation, fluid in the lungs and lung damage. May be irritating to the skin and eyes. May cause nervous system effects, including drowsiness, dizziness, coma and even death. Overexposure has caused kidney, nose, and liver damage in laboratory animals. Following inhalation exposure, an increased tumor incidence has been observed in experimental animals. The significance of this finding to human health is presently unknown. Overexposure to naphthalene, a minor component of this product, may cause skin, eye and respiratory tract irritation, anemia, loss of vision, nervous system effects and kidney and thymus damage. Also, exposure to naphthalene has produced "respiratory tract" tumors in laboratory animals.

### **Additional Toxicology Information**

Dermal exposure to middle distillates have caused skin irritation and skin cancer in laboratory animals when repeatedly applied and left in place between applications. Studies to further evaluate the carcinogenic potential of middle distillates are currently underway.

## **12. ECOLOGICAL INFORMATION**

No data available



### 13. DISPOSAL CONSIDERATIONS

Follow federal, state and local regulations. This material is a RCRA hazardous waste. Do not flush material to drain or storm sewer. Contract to authorized disposal service.

### 14. TRANSPORT INFORMATION

<u>Governing Body</u>	<u>Mode</u>	<u>Proper Shipping Name</u>		
IATA	Air	Not Determined		
DOT	Ground	Fuel Oil		

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<u>Governing Body</u>	<u>Mode</u>	<u>Hazard Class</u>	<u>UN/NA No.</u>	<u>Label</u>
IATA	Air	Not Determined		
DOT	Ground	Combustible Liquid	NA1993	

### 15. REGULATORY INFORMATION

This product contains the following EPCRA section 313 chemicals subject to the reporting requirements of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372): Maximum Wt% Naphthalene- CAS Number 91-20-3, 4.2%; %; Ethyl benzene- CAS Number 100-41-4, 0.2%; Xylene CAS-Number 1330-20-7, 1%. Benzene- CAS Number 71-43-2, 0.1%. The remaining Sara 313 components listed in Section 14 of the MSDS are less than the reported de minimis levels. This information must be included in all MSDSs that are copied and distributed for this material.

<u>Regulatory List</u>	<u>Component</u>	<u>CAS No.</u>
ACGIH - Occupational Exposure Limits - Carcinogens	ETHYL BENZENE	100-41-4
ACGIH - Occupational Exposure Limits - Carcinogens	HYDRODESULFURIZED KEROSENE	64742-81-0
ACGIH - Occupational Exposure Limits - Carcinogens	NAPHTHALENE	91-20-3
ACGIH - Occupational Exposure Limits - Carcinogens	TOLUENE	108-88-3
ACGIH - Occupational Exposure Limits - Carcinogens	XYLENE	1330-20-7
ACGIH - Occupational Exposure Limits - TWAs	CUMENE	98-82-8
ACGIH - Occupational Exposure Limits - TWAs	ETHYL BENZENE	100-41-4
ACGIH - Occupational Exposure Limits - TWAs	HYDRODESULFURIZED KEROSENE	64742-81-0
ACGIH - Occupational Exposure Limits - TWAs	N-HEXANE	110-54-3
ACGIH - Occupational Exposure Limits - TWAs	NAPHTHALENE	91-20-3
ACGIH - Occupational Exposure Limits - TWAs	TOLUENE	108-88-3
ACGIH - Occupational Exposure Limits - TWAs	XYLENE	1330-20-7
ACGIH - Short Term Exposure Limits	ETHYL BENZENE	100-41-4
ACGIH - Short Term Exposure Limits	NAPHTHALENE	91-20-3
ACGIH - Short Term Exposure Limits	XYLENE	1330-20-7
ACGIH - Skin Absorption Designation	HYDRODESULFURIZED KEROSENE	64742-81-0
ACGIH - Skin Absorption Designation	N-HEXANE	110-54-3
ACGIH - Skin Absorption Designation	NAPHTHALENE	91-20-3
CAA (Clean Air Act) - HON Rule - Organic HAPs	CUMENE	98-82-8
CAA (Clean Air Act) - HON Rule - Organic HAPs	ETHYL BENZENE	100-41-4
CAA (Clean Air Act) - HON Rule - Organic HAPs	N-HEXANE	110-54-3
CAA (Clean Air Act) - HON Rule - Organic HAPs	NAPHTHALENE	91-20-3
CAA (Clean Air Act) - HON Rule - Organic HAPs	TOLUENE	108-88-3
CAA (Clean Air Act) - HON Rule - Organic HAPs	XYLENE	1330-20-7
CAA (Clean Air Act) - HON Rule - SOCM1 Chemicals	CUMENE	98-82-8
CAA (Clean Air Act) - HON Rule - SOCM1 Chemicals	DIETHYLENE GLYCOL MONOETHYL ETHER	111-90-0
CAA (Clean Air Act) - HON Rule - SOCM1 Chemicals	ETHYL BENZENE	100-41-4
CAA (Clean Air Act) - HON Rule - SOCM1 Chemicals	N-HEXANE	110-54-3
CAA (Clean Air Act) - HON Rule - SOCM1 Chemicals	NAPHTHALENE	91-20-3

CAA (Clean Air Act) - HON Rule - SOCM Chemicals	TOLUENE	108-88-3
CAA (Clean Air Act) - HON Rule - SOCM Chemicals	XYLENE	1330-20-7
CAA (Clean Air Act) - VOCs in SOCM	CUMENE	98-82-8
CAA (Clean Air Act) - VOCs in SOCM	DIETHYLENE GLYCOL	111-90-0
	MONOETHYL ETHER	
CAA (Clean Air Act) - VOCs in SOCM	ETHYL BENZENE	100-41-4
CAA (Clean Air Act) - VOCs in SOCM	TOLUENE	108-88-3
CAA (Clean Air Act) - VOCs in SOCM	XYLENE	1330-20-7
CAA - 1990 Hazardous Air Pollutants	CUMENE	98-82-8
CAA - 1990 Hazardous Air Pollutants	ETHYL BENZENE	100-41-4
CAA - 1990 Hazardous Air Pollutants	N-HEXANE	110-54-3
CAA - 1990 Hazardous Air Pollutants	NAPHTHALENE	91-20-3
CAA - 1990 Hazardous Air Pollutants	TOLUENE	108-88-3
CAA - 1990 Hazardous Air Pollutants	XYLENE	1330-20-7
California - Prop. 65 - Developmental Toxicity	TOLUENE	108-88-3
California - Prop. 65 - Reproductive - Female	TOLUENE	108-88-3
California - Proposition 65 - Carcinogens List	ETHYL BENZENE	100-41-4
California - Proposition 65 - Carcinogens List	NAPHTHALENE	91-20-3
Canada - WHMIS - Ingredient Disclosure	DIETHYLENE GLYCOL	111-90-0
	MONOETHYL ETHER	
Canada - WHMIS - Ingredient Disclosure	ETHYL BENZENE	100-41-4
Canada - WHMIS - Ingredient Disclosure	N-HEXANE	110-54-3
Canada - WHMIS - Ingredient Disclosure	TOLUENE	108-88-3
CERCLA/SARA - Haz Substances and their RQs	CUMENE	98-82-8
CERCLA/SARA - Haz Substances and their RQs	ETHYL BENZENE	100-41-4
CERCLA/SARA - Haz Substances and their RQs	N-HEXANE	110-54-3
CERCLA/SARA - Haz Substances and their RQs	NAPHTHALENE	91-20-3
CERCLA/SARA - Haz Substances and their RQs	TOLUENE	108-88-3
CERCLA/SARA - Haz Substances and their RQs	XYLENE	1330-20-7
CERCLA/SARA - Section 313 - Emission Reporting	CUMENE	98-82-8
CERCLA/SARA - Section 313 - Emission Reporting	ETHYL BENZENE	100-41-4
CERCLA/SARA - Section 313 - Emission Reporting	N-HEXANE	110-54-3
CERCLA/SARA - Section 313 - Emission Reporting	NAPHTHALENE	91-20-3
CERCLA/SARA - Section 313 - Emission Reporting	TOLUENE	108-88-3
CERCLA/SARA - Section 313 - Emission Reporting	XYLENE	1330-20-7
CWA (Clean Water Act) - Hazardous Substances	ETHYL BENZENE	100-41-4
CWA (Clean Water Act) - Hazardous Substances	NAPHTHALENE	91-20-3
CWA (Clean Water Act) - Hazardous Substances	TOLUENE	108-88-3
CWA (Clean Water Act) - Hazardous Substances	XYLENE	1330-20-7
CWA (Clean Water Act) - Priority Pollutants	ETHYL BENZENE	100-41-4
CWA (Clean Water Act) - Priority Pollutants	NAPHTHALENE	91-20-3
CWA (Clean Water Act) - Priority Pollutants	TOLUENE	108-88-3
CWA (Clean Water Act) - Toxic Pollutants	ETHYL BENZENE	100-41-4
CWA (Clean Water Act) - Toxic Pollutants	NAPHTHALENE	91-20-3
CWA (Clean Water Act) - Toxic Pollutants	TOLUENE	108-88-3
DEA - List II Essential Chemicals	TOLUENE	108-88-3
IARC - Group 2B (Possibly carcinogenic to humans)	ETHYL BENZENE	100-41-4
IARC - Group 2B (Possibly carcinogenic to humans)	NAPHTHALENE	91-20-3
IARC - Group 3 (not classifiable)	TOLUENE	108-88-3
IARC - Group 3 (not classifiable)	XYLENE	1330-20-7
Inventory - Australia (AICS)	CUMENE	98-82-8
Inventory - Australia (AICS)	DIETHYLENE GLYCOL	111-90-0
	MONOETHYL ETHER	
Inventory - Australia (AICS)	ETHYL BENZENE	100-41-4
Inventory - Australia (AICS)	HYDRODESULFURIZED	64742-81-0
	KEROSENE	
Inventory - Australia (AICS)	N-HEXANE	110-54-3
Inventory - Australia (AICS)	NAPHTHALENE	91-20-3
Inventory - Australia (AICS)	TOLUENE	108-88-3
Inventory - Australia (AICS)	XYLENE	1330-20-7
Inventory - Canada - Domestic Substances List	CUMENE	98-82-8

Inventory - Canada - Domestic Substances List	DIETHYLENE GLYCOL	111-90-0
	MONOETHYL ETHER	
Inventory - Canada - Domestic Substances List	ETHYL BENZENE	100-41-4
Inventory - Canada - Domestic Substances List	HYDRODESULFURIZED	64742-81-0
	KEROSENE	
Inventory - Canada - Domestic Substances List	N-HEXANE	110-54-3
Inventory - Canada - Domestic Substances List	NAPHTHALENE	91-20-3
Inventory - Canada - Domestic Substances List	TOLUENE	108-88-3
Inventory - Canada - Domestic Substances List	XYLENE	1330-20-7
Inventory - China	CUMENE	98-82-8
Inventory - China	DIETHYLENE GLYCOL	111-90-0
	MONOETHYL ETHER	
Inventory - China	ETHYL BENZENE	100-41-4
Inventory - China	HYDRODESULFURIZED	64742-81-0
	KEROSENE	
Inventory - China	N-HEXANE	110-54-3
Inventory - China	NAPHTHALENE	91-20-3
Inventory - China	TOLUENE	108-88-3
Inventory - China	XYLENE	1330-20-7
Inventory - European EINECS Inventory	CUMENE	98-82-8
Inventory - European EINECS Inventory	DIETHYLENE GLYCOL	111-90-0
	MONOETHYL ETHER	
Inventory - European EINECS Inventory	ETHYL BENZENE	100-41-4
Inventory - European EINECS Inventory	HYDRODESULFURIZED	64742-81-0
	KEROSENE	
Inventory - European EINECS Inventory	N-HEXANE	110-54-3
Inventory - European EINECS Inventory	NAPHTHALENE	91-20-3
Inventory - European EINECS Inventory	TOLUENE	108-88-3
Inventory - European EINECS Inventory	XYLENE	1330-20-7
Inventory - Japan - (ENCS)	CUMENE	98-82-8
Inventory - Japan - (ENCS)	DIETHYLENE GLYCOL	111-90-0
	MONOETHYL ETHER	
Inventory - Japan - (ENCS)	ETHYL BENZENE	100-41-4
Inventory - Japan - (ENCS)	N-HEXANE	110-54-3
Inventory - Japan - (ENCS)	NAPHTHALENE	91-20-3
Inventory - Japan - (ENCS)	TOLUENE	108-88-3
Inventory - Japan - (ENCS)	XYLENE	1330-20-7
Inventory - Korea - Existing and Evaluated	CUMENE	98-82-8
Inventory - Korea - Existing and Evaluated	DIETHYLENE GLYCOL	111-90-0
	MONOETHYL ETHER	
Inventory - Korea - Existing and Evaluated	ETHYL BENZENE	100-41-4
Inventory - Korea - Existing and Evaluated	HYDRODESULFURIZED	64742-81-0
	KEROSENE	
Inventory - Korea - Existing and Evaluated	N-HEXANE	110-54-3
Inventory - Korea - Existing and Evaluated	NAPHTHALENE	91-20-3
Inventory - Korea - Existing and Evaluated	TOLUENE	108-88-3
Inventory - Korea - Existing and Evaluated	XYLENE	1330-20-7
Inventory - New Zealand	CUMENE	98-82-8
Inventory - New Zealand	DIETHYLENE GLYCOL	111-90-0
	MONOETHYL ETHER	
Inventory - New Zealand	ETHYL BENZENE	100-41-4
Inventory - New Zealand	HYDRODESULFURIZED	64742-81-0
	KEROSENE	
Inventory - New Zealand	N-HEXANE	110-54-3
Inventory - New Zealand	NAPHTHALENE	91-20-3
Inventory - New Zealand	TOLUENE	108-88-3
Inventory - New Zealand	XYLENE	1330-20-7
Inventory - Philippines Inventory (PICCS)	CUMENE	98-82-8
Inventory - Philippines Inventory (PICCS)	DIETHYLENE GLYCOL	111-90-0
	MONOETHYL ETHER	
Inventory - Philippines Inventory (PICCS)	ETHYL BENZENE	100-41-4

Inventory - Philippines Inventory (PICCS)	HYDRODESULFURIZED	64742-81-0
Inventory - Philippines Inventory (PICCS)	KEROSENE	
Inventory - Philippines Inventory (PICCS)	N-HEXANE	110-54-3
Inventory - Philippines Inventory (PICCS)	NAPHTHALENE	91-20-3
Inventory - Philippines Inventory (PICCS)	TOLUENE	108-88-3
Inventory - Philippines Inventory (PICCS)	XYLENE	1330-20-7
Inventory - TSCA - Sect. 8(b) Inventory	CUMENE	98-82-8
Inventory - TSCA - Sect. 8(b) Inventory	DIETHYLENE GLYCOL	111-90-0
Inventory - TSCA - Sect. 8(b) Inventory	MONOETHYL ETHER	
Inventory - TSCA - Sect. 8(b) Inventory	ETHYL BENZENE	100-41-4
Inventory - TSCA - Sect. 8(b) Inventory	HYDRODESULFURIZED	64742-81-0
Inventory - TSCA - Sect. 8(b) Inventory	KEROSENE	
Inventory - TSCA - Sect. 8(b) Inventory	N-HEXANE	110-54-3
Inventory - TSCA - Sect. 8(b) Inventory	NAPHTHALENE	91-20-3
Inventory - TSCA - Sect. 8(b) Inventory	TOLUENE	108-88-3
Inventory - TSCA - Sect. 8(b) Inventory	XYLENE	1330-20-7
Massachusetts - Right To Know List	CUMENE	98-82-8
Massachusetts - Right To Know List	ETHYL BENZENE	100-41-4
Massachusetts - Right To Know List	N-HEXANE	110-54-3
Massachusetts - Right To Know List	NAPHTHALENE	91-20-3
Massachusetts - Right To Know List	TOLUENE	108-88-3
Massachusetts - Right To Know List	XYLENE	1330-20-7
New Jersey - Department of Health RTK List	CUMENE	98-82-8
New Jersey - Department of Health RTK List	ETHYL BENZENE	100-41-4
New Jersey - Department of Health RTK List	N-HEXANE	110-54-3
New Jersey - Department of Health RTK List	NAPHTHALENE	91-20-3
New Jersey - Department of Health RTK List	TOLUENE	108-88-3
New Jersey - Department of Health RTK List	XYLENE	1330-20-7
New Jersey - Env Hazardous Substances List	CUMENE	98-82-8
New Jersey - Env Hazardous Substances List	ETHYL BENZENE	100-41-4
New Jersey - Env Hazardous Substances List	N-HEXANE	110-54-3
New Jersey - Env Hazardous Substances List	NAPHTHALENE	91-20-3
New Jersey - Env Hazardous Substances List	TOLUENE	108-88-3
New Jersey - Env Hazardous Substances List	XYLENE	1330-20-7
New Jersey - Env Hazardous Substances List	CUMENE	98-82-8
New Jersey - Env Hazardous Substances List	ETHYL BENZENE	100-41-4
New Jersey - Env Hazardous Substances List	N-HEXANE	110-54-3
New Jersey - Env Hazardous Substances List	NAPHTHALENE	91-20-3
New Jersey - Env Hazardous Substances List	TOLUENE	108-88-3
New Jersey - Env Hazardous Substances List	XYLENE	1330-20-7
New Jersey - Special Hazardous Substances	CUMENE	98-82-8
New Jersey - Special Hazardous Substances	ETHYL BENZENE	100-41-4
New Jersey - Special Hazardous Substances	N-HEXANE	110-54-3
New Jersey - Special Hazardous Substances	NAPHTHALENE	91-20-3
New Jersey - Special Hazardous Substances	TOLUENE	108-88-3
New Jersey - Special Hazardous Substances	XYLENE	1330-20-7
NTP - Report on Carcinogens - Suspect Carcinogens	NAPHTHALENE	91-20-3
OSHA - Final PELs - Ceiling Limits	TOLUENE	108-88-3
OSHA - Final PELs - Skin Notations	CUMENE	98-82-8
OSHA - Final PELs - Time Weighted Averages	CUMENE	98-82-8
OSHA - Final PELs - Time Weighted Averages	ETHYL BENZENE	100-41-4
OSHA - Final PELs - Time Weighted Averages	N-HEXANE	110-54-3
OSHA - Final PELs - Time Weighted Averages	NAPHTHALENE	91-20-3
OSHA - Final PELs - Time Weighted Averages	TOLUENE	108-88-3
OSHA - Final PELs - Time Weighted Averages	XYLENE	1330-20-7
OSHA - Hazard Communication Carcinogens	ETHYL BENZENE	100-41-4
OSHA - Hazard Communication Carcinogens	NAPHTHALENE	91-20-3
Pennsylvania - RTK (Right to Know) List	CUMENE	98-82-8
Pennsylvania - RTK (Right to Know) List	ETHYL BENZENE	100-41-4
Pennsylvania - RTK (Right to Know) List	N-HEXANE	110-54-3
Pennsylvania - RTK (Right to Know) List	NAPHTHALENE	91-20-3
Pennsylvania - RTK (Right to Know) List	TOLUENE	108-88-3
Pennsylvania - RTK (Right to Know) List	XYLENE	1330-20-7
Pennsylvania - RTK - Environmental Hazard List	CUMENE	98-82-8
Pennsylvania - RTK - Environmental Hazard List	ETHYL BENZENE	100-41-4
Pennsylvania - RTK - Environmental Hazard List	NAPHTHALENE	91-20-3
Pennsylvania - RTK - Environmental Hazard List	TOLUENE	108-88-3

Pennsylvania - RTK - Environmental Hazard List	XYLENE	1330-20-7
TSCA - Sect. 12(b) - Export Notification	NAPHTHALENE	91-20-3
TSCA - Section 4 - Chemical Test Rules	NAPHTHALENE	91-20-3
U.S. - DOT - Hazardous Substances and RQs (App A)	CUMENE	98-82-8
U.S. - DOT - Hazardous Substances and RQs (App A)	ETHYL BENZENE	100-41-4
U.S. - DOT - Hazardous Substances and RQs (App A)	N-HEXANE	110-54-3
U.S. - DOT - Hazardous Substances and RQs (App A)	NAPHTHALENE	91-20-3
U.S. - DOT - Hazardous Substances and RQs (App A)	TOLUENE	108-88-3
U.S. - DOT - Hazardous Substances and RQs (App A)	XYLENE	1330-20-7

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**Title III Classifications Sections 311,312:**

- Acute: **YES**
- Chronic: **YES**
- Fire: **YES**
- Reactivity: **NO**
- Sudden Release of Pressure: **NO**

**16. OTHER INFORMATION**

Follow all MSDS/label precautions even after container is emptied because it may retain product residue. Email Address: For MSDS requests/information please contact [sunocomsds@sunocoinc.com](mailto:sunocomsds@sunocoinc.com)