



SAFETY DATA SHEET

1. Identification

Product identifier Diesel No. 2 Products

Other means of identification

SDS number 10106

Synonyms APPLICABLE TO ALL GRADES OF DIESEL OIL NO. 2 WITH SULFUR LEVEL 500 PPM OR LESS; INCLUDES BIODIESEL BLENDS (< OR = 5%) * HEATING OIL * GOLD® DIESEL PRODUCTS * LOW SULFUR DISTILLATE BLEND STOCK * RAILROAD FUEL

Recommended use Motor fuel.

Recommended restrictions Other uses are not recommended unless an assessment is completed, prior to commencement of that use, which demonstrates that the use will be controlled.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer/Supplier Flint Hills Resources Corpus Christi, LLC
P.O. Box 2608
Corpus Christi, TX
78403
United States

Supplier Flint Hills Resources, LP
4111 E. 37th St. North
Wichita, KS
67220-3203
United States

Telephone Numbers - 24 hour Emergency Assistance

Chemtrec (US) 800-424-9300 (CCN: 8586)

Flint Hills Resources, Corpus Christi, LLC 361-242-8596

Telephone numbers

General Assistance

8-4:45 (M-F, CST) 361-241-4811

Customer Service

8-4:45 (M-F, CST) 316-828-7988

SDS Assistance E-mail msdsrequest@fhr.com

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 3
Health hazards	Acute toxicity, inhalation	Category 4
	Skin corrosion/irritation	Category 2
	Carcinogenicity	Category 1B
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Specific target organ toxicity, repeated exposure (dermal)	Category 2 (blood, thymus and liver)
	Aspiration hazard	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2

Hazardous to the aquatic environment,
long-term hazard

Category 2

OSHA defined hazards

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. May cause drowsiness or dizziness. May cause cancer. May cause damage to organs (blood, thymus and liver) through prolonged or repeated exposure by skin contact. 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/vapors. 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.

Response

If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If exposed or concerned: Get medical advice/attention. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. In case of fire: Use appropriate media to extinguish. Collect spillage.

Storage

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

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)

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.

Supplemental information

None.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Distillates (petroleum), hydrodesulfurized middle	64742-80-9	≤ 100
Fuels, diesel, no. 2	68476-34-6	≤ 100
Kerosine, (petroleum), hydrosulfurized	64742-81-0	≤ 100

Components

Chemical name	CAS number	%
Kerosine (Petroleum)	8008-20-6	≤ 25
Distillates (petroleum), hydrodesulfurised light catalytic cracked	68333-25-5	≤ 20
Biodiesel	Mixture	≤ 7
Xylene	1330-20-7	≤ 1
1,2,4-Trimethylbenzene	95-63-6	0.1 - 1
Biphenyl	92-52-4	< 0.8
Naphthalene	91-20-3	<= 0.3
Benzene	71-43-2	< 0.1

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a poison center or doctor/physician if you feel unwell.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Eye contact	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.
Ingestion	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.
Most important symptoms/effects, acute and delayed	Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Diarrhea. Direct contact with eyes may cause temporary irritation. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	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.
General information	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. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Alcohol resistant foam. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	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 breathe mist/vapors. 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.
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Methods and materials for containment and cleaning up

Use water spray to reduce vapors or divert vapor cloud drift. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. The product is immiscible with water and will spread on the water surface. Prevent product from entering drains.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. 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. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. 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. 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. Do not breathe mist/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated contact with skin. Avoid prolonged exposure. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. 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 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

U.S. - OSHA Components

Components	Type	Value
Benzene (CAS 71-43-2)	TWA	1 ppm

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) Components

Components	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)

Components	Type	Value
Distillates (petroleum), hydrodesulfurized middle (CAS 64742-80-9)	PEL	400 mg/m ³

Components	Type	Value	Form
Naphthalene (CAS 91-20-3)	PEL	50 mg/m ³	
Biphenyl (CAS 92-52-4)	PEL	10 ppm 1 mg/m ³	
Xylene (CAS 1330-20-7)	PEL	0.2 ppm 435 mg/m ³	
Distillates (petroleum), hydrodesulfurized light catalytic cracked (CAS 68333-25-5)	PEL	100 ppm 5 mg/m ³	Mist.

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

Components	Type	Value
Benzene (CAS 71-43-2)	Ceiling	25 ppm
	TWA	10 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Fuels, diesel, no. 2 (CAS 68476-34-6)	TWA	100 mg/m ³	Inhalable fraction and vapor.
Kerosine, (petroleum), hydrosulfurized (CAS 64742-81-0)	TWA	200 mg/m ³	Non-aerosol.

Components	Type	Value	Form
Benzene (CAS 71-43-2)	STEL	2.5 ppm	
	TWA	0.5 ppm	
Naphthalene (CAS 91-20-3)	TWA	10 ppm	
Biphenyl (CAS 92-52-4)	TWA	0.2 ppm	
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	25 ppm	
Xylene (CAS 1330-20-7)	STEL	150 ppm	
	TWA	100 ppm	
Kerosine (Petroleum) (CAS 8008-20-6)	TWA	200 mg/m ³	Non-aerosol.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Distillates (petroleum), hydrodesulfurized middle (CAS 64742-80-9)	TWA	400 mg/m ³
		100 ppm
Kerosine, (petroleum), hydrosulfurized (CAS 64742-81-0)	TWA	100 mg/m ³

Components	Type	Value	Form
Benzene (CAS 71-43-2)	STEL	1 ppm	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Naphthalene (CAS 91-20-3)	TWA	0.1 ppm	
	STEL	75 mg/m3 15 ppm	
Biphenyl (CAS 92-52-4)	TWA	50 mg/m3 10 ppm	
	TWA	1 mg/m3 0.2 ppm	
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	125 mg/m3	
Xylene (CAS 1330-20-7)	STEL	25 ppm 655 mg/m3 150 ppm	
	TWA	435 mg/m3 100 ppm	
Distillates (petroleum), hydrodesulfurised light catalytic cracked (CAS 68333-25-5)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
Kerosine (Petroleum) (CAS 8008-20-6)	TWA	100 mg/m3	

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Benzene (CAS 71-43-2)	25 µg/g	S-Phenylmercapturic acid	Creatinine in urine	*
Naphthalene (CAS 91-20-3)	2.5 µg/l	1-Hydroxypyrene, with hydrolysis (1-HP)	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

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

US ACGIH Threshold Limit Values: Skin designation

Benzene (CAS 71-43-2)	Can be absorbed through the skin.
Fuels, diesel, no. 2 (CAS 68476-34-6)	Can be absorbed through the skin.
Kerosine (Petroleum) (CAS 8008-20-6)	Can be absorbed through the skin.
Kerosine, (petroleum), hydrosulfurized (CAS 64742-81-0)	Can be absorbed through the skin.
Naphthalene (CAS 91-20-3)	Can be absorbed through the skin.

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation 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. Provide eyewash station and safety shower.

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.

Skin protection	
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	Observe any medical surveillance requirements. When using do not 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	Yellow to green. (For tax purposes, this fuel may contain red dye.)
Odor	Kerosene-like.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	> 320 °F (> 160 °C) ASTM D86
Flash point	> 125.0 °F (> 51.7 °C) Pensky-Martens Closed Cup ASTM D93
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	0.6 %
Flammability limit - upper (%)	7.5 %
Vapor pressure	2.6 mmHg at 122 °F (50 °C)
Vapor density	> 1 (air=1)
Relative density	0.84 - 0.89 at 60/60 °F (15.6/15.6 °C)
Solubility(ies)	
Solubility (water)	Insoluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	494 °F (256.67 °C)
Decomposition temperature	Not available.
Viscosity	1.7 - 4.1 cSt at 104 °F (40 °C)
Other information	
Chemical family	Hydrocarbon Mixture
Electrostatic properties	
Conductivity	≤ 50 pS/m
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Pour point	-20 - 20 °F (-28.89 - -6.67 °C)

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 drowsiness and dizziness. Headache. Nausea, vomiting.
Skin contact May cause damage to organs through prolonged or repeated exposure by 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. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Diarrhea. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways. Harmful if inhaled.

Components	Species	Test Results
Distillates (petroleum), hydrosulfurized middle (CAS 64742-80-9)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
<i>Mist</i>		
LC50	Rat	4.6 mg/l
Oral		
LD50	Rat	> 5000 mg/kg
Fuels, diesel, no. 2 (CAS 68476-34-6)		
Acute		
Inhalation		
LC50	Rat	4.1 mg/l, 4 hours
Kerosine, (petroleum), hydrosulfurized (CAS 64742-81-0)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
LC50	Rat	5280 mg/m ³
Oral		
LD50	Rat	> 5000 mg/kg
Components	Species	Test Results
Benzene (CAS 71-43-2)		
Acute		
Inhalation		
LC50	Rat	10000 mg/l, 7 Hours
Oral		
LD50	Rat	3306 mg/kg
Naphthalene (CAS 91-20-3)		
Acute		
Dermal		
LD50	Rabbit	> 2 g/kg
Oral		
LD50	Rat	490 mg/kg

Components	Species	Test Results
Biphenyl (CAS 92-52-4)		
Acute		
Dermal		
LD50	Rabbit	2500 mg/kg
Oral		
LD50	Rat	3280 mg/kg
1,2,4-Trimethylbenzene (CAS 95-63-6)		
Acute		
Oral		
LD50	Rat	2720 - 3960 mg/kg
Xylene (CAS 1330-20-7)		
Acute		
Oral		
LD50	Rat	3523 mg/kg
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary 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	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Carcinogenicity	May cause cancer.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Benzene (CAS 71-43-2)	1 Carcinogenic to humans.	
Distillates (petroleum), hydrodesulfurised light catalytic cracked (CAS 68333-25-5)	1 Carcinogenic to humans.	
Distillates (petroleum), hydrodesulfurized middle (CAS 64742-80-9)	1 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.	
NTP Report on Carcinogens		
Benzene (CAS 71-43-2)	Known To Be Human Carcinogen.	
Distillates (petroleum), hydrodesulfurised light catalytic cracked (CAS 68333-25-5)	Known To Be Human Carcinogen.	
Distillates (petroleum), hydrodesulfurized middle (CAS 64742-80-9)	Known To Be Human Carcinogen.	
Naphthalene (CAS 91-20-3)	Known To Be Human Carcinogen. Reasonably Anticipated to be a Human Carcinogen.	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)		
Benzene (CAS 71-43-2)	Cancer	
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.	
Specific target organ toxicity - single exposure	May cause drowsiness and dizziness.	
Specific target organ toxicity - repeated exposure	May cause damage to organs (blood, thymus and liver) through prolonged or repeated exposure by skin contact.	
Aspiration hazard	May be fatal if swallowed and enters airways.	
Chronic effects	Prolonged inhalation may be harmful. May cause damage to organs through prolonged or repeated exposure. Prolonged exposure may cause chronic effects.	
12. Ecological information		
Ecotoxicity	Toxic to aquatic life with long lasting effects.	

Components	Species	Test Results
Fuels, diesel, no. 2 (CAS 68476-34-6)		
Aquatic		
<i>Acute</i>		
Crustacea	EL50	Daphnia magna 68 mg/l, 48 hours
Fish	LL50	Oncorhynchus mykiss 65 mg/l, 96 hours
Components	Species	Test Results
Benzene (CAS 71-43-2)		
Aquatic		
Crustacea	EC50	Water flea (Daphnia magna) 8.76 - 15.6 mg/l, 48 Hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss) 5 mg/l, 96 Hours
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
Biphenyl (CAS 92-52-4)		
Aquatic		
Crustacea	EC50	Water flea (Daphnia pulex) 1.6 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas) 1.17 - 1.81 mg/l, 96 hours
1,2,4-Trimethylbenzene (CAS 95-63-6)		
Aquatic		
<i>Acute</i>		
Fish	LC50	Fathead minnow (Pimephales promelas) 7.72 mg/l, 96 hours
Xylene (CAS 1330-20-7)		
Aquatic		
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss) 2.6 mg/l, 96 hours

Persistence and degradability	No data is available on the degradability of any ingredients in the mixture.
Bioaccumulative potential	Has the potential to bioaccumulate.
Mobility in soil	May partition into air, soil and water.
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. Incinerate the material under controlled conditions in an approved incinerator. Do not incinerate sealed containers. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. If discarded, this product is considered a RCRA ignitable waste, D001. 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 D018: Waste Benzene 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
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	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number	UN1202
UN proper shipping name	Diesel Fuel
Transport hazard class(es)	
Class	Combustible Liquid
Subsidiary risk	-
Label(s)	Combustible Liquid
Packing group	III
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	144, B1, IB3, T2, TP1
Packaging exceptions	150
Packaging non bulk	203
Packaging bulk	242

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not classified for MARPOL. Please contact the Transportation Compliance CSO if transportation mode is a ship or vessel to determine the need for a MARPOL classification.

General information This description may not cover shipping in all cases, please consult 49 CFR 100-185 for specific shipping information or Transport Compliance Specialist (CSO).

In accordance with DOT Regulations, if the flash point is $\leq 60^{\circ}\text{C}$ ($\leq 140^{\circ}\text{F}$) then the hazard class and label(s) should be changed to Class 3 and Flammable, respectively.

In accordance with DOT Regulations, non-bulk shipments of this material with a hazard class of Combustible Liquid are not subject to DOT hazardous material regulations.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

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

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Benzene (CAS 71-43-2)	Listed.
Biphenyl (CAS 92-52-4)	Listed.
Naphthalene (CAS 91-20-3)	Listed.
Xylene (CAS 1330-20-7)	Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

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

Toxic Substances Control Act (TSCA) All components of the mixture on the TSCA 8(b) inventory are designated "active".

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

Classified hazard categories Flammable (gases, aerosols, liquids, or solids)
Acute toxicity (any route of exposure)
Skin corrosion or irritation
Carcinogenicity
Specific target organ toxicity (single or repeated exposure)
Aspiration hazard
Hazard not otherwise classified (HNOC)

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
1,2,4-Trimethylbenzene	95-63-6	0.1 - 1
Benzene	71-43-2	< 0.1
Naphthalene	91-20-3	<= 0.3
Xylene	1330-20-7	≤ 1

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

Benzene (CAS 71-43-2)
 Biphenyl (CAS 92-52-4)
 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.**FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace**

Biphenyl (CAS 92-52-4) Low priority

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

1,2,4-Trimethylbenzene (CAS 95-63-6)
 Benzene (CAS 71-43-2)
 Biphenyl (CAS 92-52-4)
 Distillates (petroleum), hydrodesulfurised light catalytic cracked (CAS 68333-25-5)
 Distillates (petroleum), hydrodesulfurized middle (CAS 64742-80-9)
 Kerosine (Petroleum) (CAS 8008-20-6)
 Kerosine, (petroleum), hydrosulfurized (CAS 64742-81-0)
 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)
 Benzene (CAS 71-43-2)
 Biphenyl (CAS 92-52-4)
 Distillates (petroleum), hydrodesulfurized middle (CAS 64742-80-9)
 Fuels, diesel, no. 2 (CAS 68476-34-6)
 Kerosine (Petroleum) (CAS 8008-20-6)
 Kerosine, (petroleum), hydrosulfurized (CAS 64742-81-0)
 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)
 Benzene (CAS 71-43-2)
 Biphenyl (CAS 92-52-4)
 Distillates (petroleum), hydrodesulfurised light catalytic cracked (CAS 68333-25-5)
 Distillates (petroleum), hydrodesulfurized middle (CAS 64742-80-9)
 Fuels, diesel, no. 2 (CAS 68476-34-6)
 Kerosine (Petroleum) (CAS 8008-20-6)
 Kerosine, (petroleum), hydrosulfurized (CAS 64742-81-0)
 Naphthalene (CAS 91-20-3)
 Xylene (CAS 1330-20-7)

US. Rhode Island RTK

1,2,4-Trimethylbenzene (CAS 95-63-6)
 Benzene (CAS 71-43-2)
 Biphenyl (CAS 92-52-4)
 Distillates (petroleum), hydrodesulfurised light catalytic cracked (CAS 68333-25-5)
 Distillates (petroleum), hydrodesulfurized middle (CAS 64742-80-9)
 Kerosine (Petroleum) (CAS 8008-20-6)
 Kerosine, (petroleum), hydrosulfurized (CAS 64742-81-0)
 Naphthalene (CAS 91-20-3)
 Xylene (CAS 1330-20-7)

California Proposition 65

WARNING: This product can expose you to chemicals including Benzene, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California Proposition 65 - CRT: Listed date/Carcinogenic substance

Benzene (CAS 71-43-2) Listed: February 27, 1987
Naphthalene (CAS 91-20-3) Listed: April 19, 2002

California Proposition 65 - CRT: Listed date/Developmental toxin

Benzene (CAS 71-43-2) Listed: December 26, 1997

California Proposition 65 - CRT: Listed date/Male reproductive toxin

Benzene (CAS 71-43-2) Listed: December 26, 1997

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

1,2,4-Trimethylbenzene (CAS 95-63-6)
Benzene (CAS 71-43-2)
Biphenyl (CAS 92-52-4)
Distillates (petroleum), hydrodesulfurised light catalytic cracked (CAS 68333-25-5)
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Naphthalene (CAS 91-20-3)
Xylene (CAS 1330-20-7)

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
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	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 21-January-2020
Revision date -
Version # 01
HMIS® ratings Health: 3*
Flammability: 2
Physical hazard: 0

NFPA ratings

Disclaimer

NOTICE: The information contained in this document is based on data considered to be accurate as of the preparation date of this Safety Data Sheet (SDS) and was prepared pursuant to applicable Government regulation(s). This SDS may not be used as a commercial specification sheet of manufacturer or seller, and no warranty or representation, expressed or implied, is made as to the accuracy or comprehensiveness of the above data and safety information, nor is any authorization given or implied to practice any patented invention without a license. Additional information may be needed to evaluate other uses of the product, including use of the product in combination with any materials or in any processes other than those specifically referenced. Information provided about any hazards that may be associated with the product is not meant to suggest that use of the product in a given application will necessarily result in any exposure or risk to workers or the general public. Purchasers and users of the product are responsible for determining that this product is suitable for the intended use and application. No responsibility can be assumed by vendor for any damage or injury resulting from failure to adhere to recommended uses, or from any hazards inherent to the product. Purchasers and users assume all risk of use, storage and handling of the product in compliance with applicable federal, state and local laws and regulations. Purchasers and users of the product should explicitly advise their employees, agents, contractors and customers who will use the product of this SDS.