

☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆ GHS CLASSIFICATION ☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆

Hazard class	Hazard Category	Hazard Statement
Combustible Liquid	Category 4	H227
Aspiration hazard	Category 1	H304
Carcinogenicity	Category 2	H350
Acute toxicity, inhalation	Category 4	H332
Specific target organ toxicity (Blood, Liver, Thymus, repeated exposure)	Category 2	H373
Skin, corrosion/irritation	Category 2	H315
Chronic hazards to the aquatic environment	Category 2	H411

☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆ LABEL ELEMENTS ☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆

Pictogram:



Signal Word: Danger

Physical Hazard Statements:

H227 Combustible liquid; will ignite on surface at temperatures above auto-ignition temp.

Health Hazard Statements:

H304 May be fatal if swallowed and enters airways.

H350 May cause cancer.

H332 Harmful if inhaled.

H373 May cause damage to organs through prolonged or repeated exposure.

H315 Causes skin irritation.

Environmental Hazard Statements:

H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements:

Prevention: P280: Wear protective gloves/protective clothing/eye protection/face protection
P260 Do not breathe dust/fume/ gas/ mist/vapors/ spray.

Response: P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P331 Do NOT induce vomiting.

Disposal: P501 Dispose of contents/containers to an approved waste management company or reclaimer.

Unclassified hazards: Vapors in the headspace of tanks and containers may ignite and explode at temperatures exceeding auto-ignition temperature where vapor concentrations are within the flammability range. Electrostatic charges may be generated during pumping. Electrostatic discharge may cause fire.

Section 3 - Composition / Information on Ingredients

Ingredient Name	CAS Number	%wt.
Diesel Fuel, A distillate oil having a minimum viscosity of 32.6 SUS at 37.7.degree.C (100.degree.F) to a maximum of 40.1 SUS at 37.7.degree.C (100.degree.F)	68476-34-6	100
Naphthalene	91-20-3	0-1.0
Xylenes	1330-20-7	<0.2
Cyclohexane	110-82-7	0-0.1
Ethylbenzene	100-41-4	0-0.1
1,2,4 Trimethylbenzene	95-63-6	0-0.1
Naphthalene	91-20-3	0-1.0
Cumene	98-82-8	0-0.1

Section 4 - First Aid Measures

Eye Contact: Flush with water for at least 20 minutes. Seek medical attention.

Skin Contact: Remove any contaminated clothing and wash with soap and water at least 20 minutes. Launder or dry-clean clothing before reuse.

Inhalation: Move to fresh air. If breathing is irregular or has stopped, start resuscitation, and then administer oxygen if available. Seek medical attention.

Ingestion: Do not induce vomiting. Vomiting may cause aspiration into lungs. If spontaneous vomiting is about to occur, place victim's head below knees. Seek medical attention.

After first aid, get appropriate in-plant, paramedic, or community medical support.

Section Ref. (4)

Section 5 - Fire-Fighting Measures

Flash Point: >140°F

Flash Point Method: PM

Autoignition Temperature: 500 F

LEL: 0.9

UEL: 7.0

Emergency Response Guide: Guide No. 128

Flammability Classification: Combustible liquid

Extinguishing Media: Extinguish with dry chemical, CO₂, foam and water fog. Solid streams of water may be ineffective. Cool affected containers and vessels with flooding quantities of water. Apply water from as great a distance as possible. Keep run off water out of sewers and water sources. Minimize breathing of gases, vapor, fumes, or decomposition products. Use self-contained breathing apparatus for enclosed or confined spaces or as otherwise needed.

Unusual Fire or Explosion Hazards: Do not store near strong oxidants or open flame.

Hazardous Combustion Products: Under fire conditions – May form toxic materials; carbon dioxide and monoxide, oxides of sulfur and H₂S, and other decomposition products, in the case of incomplete combustion.

Fire-Fighting Instructions: Extinguish with dry chemical, CO₂, foam and water fog. Solid streams of water may be ineffective. Cool affected containers and vessels with flooding quantities of water. Apply water from as great a distance as possible. Keep run off water out of sewers and water sources. Minimize breathing of gases, vapor, fumes, or decomposition products.

Special Fire-Fighting Procedures: Use self-contained breathing apparatus for enclosed or confined spaces or as otherwise needed. Cool exposed containers and vessels with water.

Section Ref. (4, 9, 10)

NFPA rating ®	
H	1
F	2
R	0

Section 6 - Accidental Release Measures

“FOR CHEMICAL EMERGENCY” Spill, Leak, Fire, Exposure or Accident

CALL CHEMTREC – Day or Night 800-424-9300

Spill /Leak Procedures: Shut off sources of ignition. Shut off leak, if possible without risk. Take up with sand or other non-combustible, absorbent material.

Small Spills: Take up with an absorbent material and place in containers, seal tightly for proper disposal.

Large Spills: Isolate the hazard area and restrict entry to unnecessary personnel. Shut off source of leak only if it can be done so safely or dike and contain the spill. Keep run off out of sewers and water sources. Wear appropriate respirator and protective clothing. If possible remove product with vacuum trucks. Soak up residue with sand or other suitable material, place in containers for proper disposal. Local, state and federal disposal regulations must be followed.

Regulatory Requirements: Report any spills that could reach any surface waters to the U.S. Coast Guard National Response Center (800) 424-8802.

Section Ref. (4)

Section 7 - Handling and Storage

Handling Precautions: Do not handle or store near heat, sparks, or flame.

Storage Requirements: Do not store near strong oxidants or open flames. Avoid water contamination.

Advice on protection against fire and explosion: Hydrocarbon liquids including this product can act as a non-conductive flammable liquid (or static accumulators), and may form ignitable vapor-air mixtures in storage tanks or

other containers. Precautions to prevent static-initiated fire or explosion during transfer, storage or handling, include but are not limited to these examples:

- (1) Ground and bond containers during product transfers. Grounding and bonding may not be adequate protection to prevent ignition or explosion of hydrocarbon liquids and vapors that are static accumulators.
- (2) Special slow load procedures for "switch loading" must be followed to avoid the static ignition hazard that can exist when higher flash point material (such as fuel oil or diesel) is loaded into tanks previously containing low flash point products (such as gasoline or naphtha).
- (3) Storage tank level floats must be effectively bonded. For more information on precautions to prevent static-initiated fire or explosion, see NFPA 77, Recommended Practice on Static Electricity (2007), and API recommended Practice 2003, Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents (2008).

Section 8 - Exposure Controls / Personal Protection

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH IDLH
	TWA	STEL	TWA	STEL	TWA	STEL	
Diesel Fuel			100 mg/m ³				
Polynuclear aromatics	0.2 g/m ³		0.2 mg/m ³		0.1 mg/m ³		
Naphthalene	10 ppm		10 ppm	15 ppm	10 ppm	15 ppm	250 ppm
Ethyl benzene	100 ppm		100 ppm	125 ppm	100 ppm	125 ppm	800 ppm
Xylenes	100 ppm		100 ppm	150 ppm	100 ppm	150 ppm	900 ppm
Toluene	200 ppm	300 ppm	20 ppm		100 ppm	150 ppm	500 ppm
1,2,4 Trimethylbenzene	N. D.		25 ppm		25 ppm		N. D.
Cumene	50 ppm		50 ppm		50 ppm		900 ppm
Cyclohexane	300 ppm		100 ppm		300 ppm		1300 ppm

Engineering Controls

Ventilation: General mechanical with local exhaust; sufficient to maintain exposure levels below recommended TLV.

Protective Clothing/Equipment

Gloves: Use chemical resistant gloves resistant to distillate to avoid prolonged or repeated skin contact.

Goggles: Chemical-type goggles or face shield.

Respiratory: Self-contained, positive-pressure breathing apparatus when used in confined or enclosed space or when exposure limits are exceeded. Organic vapor respirators can be used with good ventilation when organic vapors are less than 1000 ppm or ten (10) times permissible exposure limit, which ever is less.

Section Ref. (3)

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance and Odor: Yellow-Green color with distinct hydrocarbon odor

Odor Threshold: No Data

Vapor Pressure: 0.19 psi @ 100°F

Vapor Density (Air=1): 4+

Formula Weight: No Data

Density: No Data

Specific Gravity (H₂O=1, at 4 °C): 0.83 –0.86

pH: No Data

Water Solubility: Negligible

Other Solubilities: No Data

Boiling Point: 320°F - 680°F

Viscosity: 2.6 cst @ 40°C

Refractive Index: No Data

Surface Tension: No Data

% Volatile: <2

Evaporation Rate: 0.02 (Butyl Acetate = 1)

Section 10 - Stability and Reactivity

Stability: Material is stable.

Polymerization: Will not occur.

Chemical Incompatibilities: Do not store near strong oxidants.

Conditions to Avoid: Do not store near open flames.

Hazardous Decomposition Products: Under fire conditions – May form toxic materials; carbon dioxide and monoxide, oxides of sulfur and nitrogen, H₂S, and other decomposition products, in the case of incomplete combustion.

Section Ref. (10)

Section 11- Toxicological Information

Toxicity by ingestion: Grade 1; LD50 = 5–15 g/kg

Skin-Rabbit, adult 500 mg Moderate irritation effects

National Technical Information Service. (Springfield, VA 22161) (Formerly U.S. Clearinghouse for Scientific and Technical Information) NTIS** AD-A172-198

Oral-Rat LD50: 9 g/kg

“Toxicology of Petroleum Hydrocarbons, Proceedings of the Symposium, 1st, 1982” MacFarland, H.N., et al., eds., Washington, DC, American Petroleum Institute, 1983 MLA2 1,1,83

Skin-Mouse TDLo: 243 g/kg/97W-I: Carcinogenic effects

Fundamental and Applied Toxicology. (Academic Press, Inc., 1 E. First St., Duluth, MN 55802) V.1- 1981-FAATDF 9, 297, 87

Diesel Exhaust:

Inhalation-Rat TCLo: 4900 mg/m³/8H/2Y-C: Carcinogenic effects

Developments in Toxicology and Environmental Science. (Elsevier, Scientific Publishing Co., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1977-DTESD7 13, 349, 86

Inhalation-Rat TC: 7 mg/m³/7H/2Y-I: Carcinogenic effects

Fundamental and Applied Toxicology. (Academic Press, Inc., 1 E. First St., Duluth, MN 55802) V.1- 1981-FAATDF 9, 208, 87

Inhalation-Rat TCLo: 2200 mg/m³/16H/2Y-I: Neoplastic effects

Developments in Toxicology and Environmental Science. (Elsevier, Scientific Publishing Co., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1977-DTESD7 13, 471, 86

Inhalation-Rat TC: 8300 mg/kg/6H/86W-I: Equivocal tumorigenic agent

American Industrial Hygiene Association Journal. (AIHA, 475 Wolf Ledges Pkwy., Akron, OH 44311) V.19- 1958-AIHAAP 42, 382, 81

Inhalation-Rat TC: 8300 mg/m³/6H/86W-I: Equivocal tumorigenic agent

American Industrial Hygiene Association Journal. (AIHA, 475 Wolf Ledges Pkwy., Akron, OH 44311) V.19- 1958-AIHAAP 42, 382, 81

Inhalation-Rat TC: 7 mg/m³/7H/2Y-I: Equivocal tumorigenic agent

Annals of the American Conference of Governmental Industrial Hygienists. (American Conference of Governmental Industrial Hygienists, Inc., 6500 Glenway Ave., Bldg. D-5, Cincinnati, OH, 54211) V.1- 1981-ACGHD2 13,3,85

Section Ref. (5, 10)

Section 12 - Ecological Information

Ecotoxicity:

Dangerous to aquatic life in high concentrations.

Fouling to shoreline.

May be dangerous if it enters water intakes.

Notify local health and wildlife officials.

Notify operators of nearby water intakes

Aquatic toxicity: 204 mg/l/24 hr/juvenile American shad/TLM/salt water.

Waterfowl toxicity: more than 20 ml/kg/LD50/mallards

Section Ref. (10)

Section 13 - Disposal Considerations

Disposal: Local, state and federal disposal regulations must be followed.

Container Cleaning and Disposal: "Empty" Container Warning: "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.

Section 14 - Transport Information

DOT Transportation Data (49 CFR 172.101):

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description information.

Transportation Information for Bulk Shipments

DOT Shipping Name: Diesel Fuel

DOT Hazard Class: 3

DOT ID No.: UN 1202

DOT Packing Group: III

Hazard Label: Flammable Liquid

Section 15 - Regulatory Information

CERCLA Reportable Quantity (RQ) (40 CFR 302.4):

Compound	CAS Number	RQ
Toluene	108-88-3	1000
Xylenes (mixed isomers)	1330-20-7	100
Cyclohexane	110-82-7	1000
Ethylbenzene	100-41-4	1000
1,2,4 Trimethylbenzene	95-63-6	NA
Naphthalene	91-20-3	100
Cumene	98-82-8	5000

SARA 311/312 Codes (40 CFR 370 / 29 CFR 1910.1200):

Fire	Yes
Pressure	No
Reactivity	No
Immediate (acute)	Yes
Delayed (chronic)	Yes

SARA Toxic Chemical (40 CFR 372) Section 313:

Compound	CAS Number	Concentration %
Toluene	108-88-3	0-0.1
Xylenes (mixed isomers)	1330-20-7	0-0.2
Cyclohexane	110-82-7	0-0.1
Ethylbenzene	100-41-4	0-0.1
1,2,4 Trimethylbenzene	95-63-6	0-0.1
Naphthalene	91-20-3	0-1.0
Cumene	98-82-8	0-0.1

SARA EHS (Extremely Hazardous Substance) (40 CFR 355): None

TSCA (40 CFR 710): All components of this product are listed on the TSCA Inventory.

State Regulations: The following chemicals are specifically listed by individual states, for details on each states regulatory requirements you should contact the appropriate agency in that state.

Compound	CAS Number	States
Toluene	108-88-3	CA, CA65, MA, NJ, TX, FL, IL, PA
Xylenes (mixed isomers)	1330-20-7	CA, MA, NY, NJ, TX, FL, IL, PA
Cyclohexane	110-82-7	CA, MA, NJ, TX, FL, IL, PA
Ethylbenzene	100-41-4	CA, MA, NJ, TX, FL, IL, PA
1,2,4 Trimethylbenzene	95-63-6	MA, TX, FL, PA
Naphthalene	91-20-3	CA, MA, NJ, TX, FL, IL, PA
Cumene	98-82-8	CA, MA, NJ, TX, FL, IL, PA

CA – CALIFORNIA STATE SUPERFUND HAZARDOUS SUBSTANCE
 CA65 – CALIFORNIA PROPOSITION 65 CARCINOGENS OR REPRODUCTIVE TOXINS
 MA – MASSACHUSETTS SUBSTANCE LIST
 NY – NEW YORK HAZARDOUS SUBSTANCE BULK STORAGE LIST
 NJ – NEW JERSEY RIGHT TO KNOW HAZARDOUS SUBSTANCE
 TX – TEXAS AIR CONTAMINANTS WITH HEALTH EFFECTS SCREENING LEVEL
 FL – FLORIDA TOXIC SUBSTANCE LIST
 IL – TOXIC SUBSTANCE DISCLOSURE TO EMPLOYEES LIST
 PA – PENNSYLVANIA HAZARDOUS SUBSTANCE LIST

Section Ref. (6)

SECTION 16 - Other Information

Prepared By: Lion Oil Control Lab

Revision Notes

06-11-2013- GHS update
 04-04-2011-Moved Sections 2 and 3.

Hazardous Materials Information System (U.S.A.)

HMIS	
H	1
F	2
PH	0
PPE†	
†Sec. 8	

Hazard Ratings

H – Health 4 – Extreme
 F – Fire Hazard 3 – Serious
 PH – Physical Hazard 2 – Moderate
 1 – Slight
 0 – Minimal

* **Chronic Hazard** - Chronic (long-term) health effects may result from repeated over exposure.

National Fire Protection Association

NFPA Label

Chem. name

Health (blue)
 4 – deadly
 3 – extreme danger
 2 – hazardous
 1 – slightly hazardous
 0 – normal material

Fire Hazard (red)
 Flash Point Temp.
 4 – below 73F - v.flam.
 3 – 73 to 100F – flam.
 2 – 101 to 200F- comb.
 1 – over 200F –slightly combustible
 0 – will not burn

Reactivity (yellow)
 4 – may detonate
 3 – shock or heat may detonate
 2 – violent chem. reaction
 1 – unstable if heated
 0 – stable

Specific Hazard
 OXY - oxidizer
 ACID – acid
 ALK – Alkali
 COR – corrosive
 W – use no water
 RAD - radiation haz.

Reference and research:

- (1) The International Chemical Safety Card - <http://www.cdc.gov/niosh/ipcs/icstart.html>
- (2) NIOSH Pocket Guide to Chemical Hazards - <http://www.cdc.gov/niosh/npg/>
- (3) 2007 Guide to Occupational Exposure Values – Compiled by ACGIH
- (4) 2008 Emergency Response Guidebook - <http://hazmat.dot.gov/pubs/erg/unidnum.htm>
- (5) Sax's Dangerous Properties of Industrial Materials, 9th Edition; Edited by Richard J. Lewis, Sr.; Version 1.6; Copyright © 1997 by John Wiley & Sons, Inc.
- (6) Touchstone Environmental, Inc.; Chemcheck Handbook (educational resource)
- (7) Hawley's Condensed Chemical Dictionary, 13th Edition; Edited by Richard J. Lewis, Sr.; Version 1.1 Copyright© 1997 by John Wiley & Sons, Inc.
- (8) Environmental Contaminant Reference Databook; VOLUMES I, II and III; by Jan. C. Prager; Version 2.0; Copyright © 1997 by John Wiley & Sons, Inc.
- (9) Fire Protection Guide to Hazardous Materials, Twelfth Edition; National Fire Protection Association (NFPA 325) Guide to Hazardous Chemical Properties of Flammable Liquids, Gases, and Volatile Solids. 1994 edition.
- (10) Hazardous Materials Handbook; Richard P. Pohanish and Stanley A. Greene, Version 1.3 Copyright© 1997 by Richard P. Pohanish and Stanley A. Greene