

Material Safety Data Sheet: DIESEL-MATE CLEAR

Supersedes Date 10/04/2006

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1. PRODUCT AND COMPANY IDENTIFICATION

Product Name DIESEL-MATE CLEAR
Recommended Use fuel additive
Information on Manufacturer
 CERTIFIED LABS, DIV. OF NCH CORP.
 BOX 152170
 IRVING, TEXAS 75015

Product Code 0634
Chemical Nature Organic solvent
Emergency Telephone Number
 CHEMTREC® 800-424-9300

2. HAZARDS IDENTIFICATION

Emergency Overview

WARNING
 Combustible liquid and vapor
 Causes skin irritation
 May cause allergic skin reaction
 Causes eye irritation
 May be harmful if inhaled
 Harmful if swallowed

Color Amber

Physical State Liquid

Odor Solvent

Potential Health Effects

Principle Route of Exposure

Skin contact, Eye contact, Inhalation.

Primary Routes of Entry

Inhalation, Skin Absorption.

Acute Effects

Eyes

Causes eye irritation.

Skin

Causes skin irritation. May cause allergic skin reaction. May be absorbed through the skin in harmful amounts.

Inhalation

May cause central nervous system depression. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Ingestion

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration hazard if swallowed - can enter lungs and cause damage. May be fatal if swallowed and enters airways.

Chronic Toxicity

May cause skin sensitization in some individuals, Liver and kidney injuries may occur, Prolonged or repeated inhalation may cause damage to the lungs, Contains a known or suspected carcinogen.

Target Organ Effects

Liver, Kidney, Blood, Central nervous system, Peripheral Nervous System (PNS), Cardiovascular system, Respiratory system, Bone Marrow, Ears, Heart.

Aggravated Medical Conditions

Respiratory disorders, Skin disorders, Liver disorders, Kidney disorders, Neurological disorders, Blood disorders, Heart disease.

Potential Environmental Effects

See Section 12 for additional Ecological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No
Ethyl benzene	100-41-4
2-Ethyl hexanol	104-76-7
1,3,5- Trimethylbenzene	108-67-8
Xylenes (o-, m-, p- isomers)	1330-20-7
2-Ethylhexyl nitrate	27247-96-7
Petroleum distillates, hydrotreated light	64742-47-8
Naphtha (petroleum), hydrotreated heavy	64742-48-9
Naphtha (petroleum), heavy aromatic	64742-94-5
Petroleum naphtha, light aromatic	64742-95-6
Naphthalene	91-20-3
1,2,4- Trimethylbenzene	95-63-6
Cumene	98-82-8

4. FIRST AID MEASURES

General Advice

Avoid contact with skin, eyes and clothing. Avoid breathing vapors, mist, or gas.

Eye Contact

Rinse thoroughly with plenty of water, also under the eyelids. Get medical attention if irritation develops and persists.

Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention if irritation develops and persists. Wash contaminated clothing before re-use.

Inhalation

If inhaled, remove to fresh air. Get medical attention if symptoms occur.

Ingestion

Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately. Never give anything by mouth to an unconscious person.

Notes to Physician

May cause sensitization of susceptible persons. Aspiration hazard if swallowed - can enter lungs and cause damage.

5. FIRE-FIGHTING MEASURES

Flash Point 149°F/65°C **Method** Seta closed cup
Autoignition Temperature No information available.
Flammability Limits in Air % Solvent mixture. **Upper** 7.0 **Lower** 0.7

Suitable Extinguishing Media

Foam. Alcohol-resistant foam. Carbon dioxide (CO₂). Dry chemical. Water spray. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Specific hazards arising from the chemical

Solvent vapors are heavier than air and may spread along floors. Vapors may ignite and explode. Material can create slippery conditions.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA **Health** 2 **Flammability** 2 **Instability** 0
HMIS **Health** 2 **Flammability** 2 **Instability** 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Use personal protective equipment. Remove all sources of ignition. Ensure adequate ventilation. Prevent further leakage or spillage if safe to do so. Material can create slippery conditions.
Environmental Precautions Do not flush into surface water or sanitary sewer system.
Methods for Containment Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
Methods for Cleaning Up Pick up and transfer to properly labeled containers.
Neutralizing Agent Not applicable.

7. HANDLING AND STORAGE

Handling Avoid contact with skin, eyes and clothing. Avoid breathing vapors, mist or gas.
Storage Keep away from open flames, hot surfaces and sources of ignition. Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place.
Storage Temperature **Minimum** -10°F/-23°C **Maximum** 100°F/38°C
Storage Conditions **Indoor** X **Outdoor** X **Heated** **Refrigerated**

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH
Ethyl benzene	125 ppm STEL : 100 ppm TWA	100 ppm TWA; 435 mg/m ³ TWA	800 ppm IDLH (10% LEL) : 100 ppm TWA; 435 mg/m ³ TWA 125 ppm STEL; 545 mg/m ³ STEL
2-Ethyl hexanol	No data available	No data available	No data available
1,3,5- Trimethylbenzene	TWA: 25 ppm	No data available	: 25 ppm TWA; 125 mg/m ³ TWA
Xylenes (o-, m-, p- isomers)	150 ppm STEL : 100 ppm TWA	100 ppm TWA; 435 mg/m ³ TWA	No data available
2-Ethylhexyl nitrate	1 ppm (vendor data)	No data available	No data available
Petroleum distillates, hydrotreated light	5 mg/m ³ as oil mist	10 mg/m ³ as oil mist	No data available
Naphtha (petroleum), hydrotreated heavy	No data available	No data available	No data available
Naphtha (petroleum), heavy aromatic	No data available	No data available	No data available
Petroleum naphtha, light aromatic	No data available	No data available	No data available
Naphthalene	Skin : 15 ppm STEL : 10 ppm TWA	10 ppm TWA; 50 mg/m ³ TWA	250 ppm IDLH : 10 ppm TWA; 50 mg/m ³ TWA 15 ppm STEL; 75 mg/m ³ STEL
1,2,4- Trimethylbenzene	TWA: 25 ppm	No data available	: 25 ppm TWA; 125 mg/m ³ TWA
Cumene	: 50 ppm TWA	: 50 ppm TWA; 245 mg/m ³ TWA Skin	: 900 ppm IDLH (10% LEL) : 50 ppm TWA; 245 mg/m ³ TWA

Engineering Measures Ensure adequate ventilation, especially in confined areas.
Personal Protective Equipment
Eye/Face Protection Safety glasses with side-shields.
Skin Protection Wear suitable protective clothing, Impervious gloves.
Respiratory Protection In case of inadequate ventilation wear respiratory protection. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
General Hygiene Considerations Ensure that eyewash stations and safety showers are close to the workstation location. Wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State Liquid **Viscosity** Non viscous
Color Amber **Odor** Solvent
Appearance Slightly Cloudy **pH** Not applicable
Specific Gravity 0.91 **Evaporation Rate** 0.21 (Butyl acetate=1)
Percent Volatile (Volume) > 95 **VOC Content (%)** 94.1
VOC Content (g/L) 856.3 **Vapor Pressure** 2.1 mmHg @ 70 °F
Vapor Density 5.9 (Air = 1.0) **Solubility** Negligible

Boiling Point/Range 320°F/160°C

10. STABILITY AND REACTIVITY

Chemical Stability	Stable. Hazardous polymerization does not occur.
Conditions to Avoid	Heat, flames, and sparks
Incompatible Products	Strong oxidizing agents, Reducing agents.
Hazardous Decomposition Products	Carbon oxides, Nitrogen oxides (NOx), Aldehydes.
Possibility of Hazardous Reactions	None under normal processing.

11. TOXICOLOGICAL INFORMATION

Product Information No information available.

Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
Ethyl benzene	3500 mg/kg (Rat)	15354 mg/kg (Rabbit)	17.2 mg/L (Rat) 4 h	no data available	no data available
2-Ethyl hexanol	1516-2774 mg/kg (Rat)	no data available	no data available	no data available	no data available
1,3,5- Trimethylbenzene	5000 mg/kg (Rat) 8970 mg/kg (Rat)	no data available	24 g/m ³ (Rat) 4 h	no data available	no data available
Xylenes (o-, m-, p- isomers)	4300 mg/kg (Rat)	1700 mg/kg (Rabbit)	5000 ppm (Rat) 4 h 47635 mg/L (Rat) 4 h	no data available	no data available
2-Ethylhexyl nitrate	2000 mg/kg (Rat)	4820 mg/kg (Rabbit)	14 mg/L (Rat) 4 h 4.6 mg/L (Rat) 1 h	no data available	no data available
Petroleum distillates, hydrotreated light	5000 mg/kg (Rat)	2000 mg/kg (Rabbit)	5.2 mg/L (Rat) 4 h	no data available	no data available
Naphtha (petroleum), hydrotreated heavy	5000 mg/kg (Rat)	3160 mg/kg (Rabbit)	no data available	no data available	no data available
Naphtha (petroleum), heavy aromatic	5000 mg/kg (Rat)	2000 mg/kg (Rabbit)	590 mg/m ³ (Rat) 4 h	no data available	no data available
Petroleum naphtha, light aromatic	8400 mg/kg (Rat)	2000 mg/kg (Rabbit)	5.2 mg/L (Rat) 4 h 3400 ppm (Rat) 4 h	no data available	no data available
Naphthalene	490 mg/kg (Rat)	2500 mg/kg (Rat) 20 g/kg (Rabbit)	340 mg/m ³ (Rat) 1 h	no data available	no data available
1,2,4- Trimethylbenzene	8970 mg/kg (Rat) 3400 mg/kg (Rat)	3160 mg/kg (Rabbit)	18 g/m ³ (Rat) 4 h	no data available	no data available
Cumene	1400 mg/kg (Rat)	3160 mg/kg (Rabbit)	39000 mg/m ³ (Rat) 4 h	no data available	no data available

Chronic Toxicity

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
Ethyl benzene	no data available	no data available	X	no data available	eyes, CNS, respiratory system, skin
2-Ethyl hexanol	no data available	no data available	no data available	no data available	CNS, lungs, heart, kidney, liver
1,3,5- Trimethylbenzene	no data available	no data available	no data available	no data available	eyes, CNS, respiratory system, skin, blood
Xylenes (o-, m-, p- isomers)	no data available	no data available	X	no data available	heart, blood, lung, CNS, PNS, respiratory system, ears, liver, kidney
2-Ethylhexyl nitrate	no data available	no data available	no data available	no data available	CNS
Petroleum distillates, hydrotreated light	no data available	no data available	no data available	no data available	CNS, cardiovascular system, respiratory system
Naphtha (petroleum), hydrotreated heavy	no data available	no data available	no data available	no data available	no data available
Naphtha (petroleum), heavy aromatic	no data available	no data available	no data available	no data available	CNS
Petroleum naphtha, light aromatic	no data available	no data available	no data available	no data available	CNS
Naphthalene	no data available	X	no data available	no data available	eyes, blood, liver, kidneys, skin, CNS
1,2,4- Trimethylbenzene	no data available	no data available	no data available	no data available	eyes, CNS, respiratory system, skin, blood
Cumene	no data available	no data available	no data available	no data available	eyes, CNS, respiratory system, skin

Carcinogenicity

Component	ACGIH	IARC	NTP	OSHA	Other
Ethyl benzene	A3	Group 2B	not applicable	X	not applicable
2-Ethyl hexanol	not applicable	not applicable	not applicable	not applicable	not applicable
1,3,5- Trimethylbenzene	not applicable	not applicable	not applicable	not applicable	not applicable
Xylenes (o-, m-, p- isomers)	not applicable	not applicable	not applicable	not applicable	not applicable
2-Ethylhexyl nitrate	not applicable	Group 2A	not applicable	X	not applicable
Petroleum distillates, hydrotreated light	not applicable	not applicable	not applicable	not applicable	not applicable
Naphtha (petroleum), hydrotreated heavy	not applicable	not applicable	not applicable	not applicable	not applicable
Naphtha (petroleum), heavy aromatic	not applicable	not applicable	not applicable	not applicable	not applicable
Petroleum naphtha, light aromatic	not applicable	not applicable	not applicable	not applicable	not applicable
Naphthalene	not applicable	Group 2B	Reasonably Anticipated	X	not applicable

1,2,4- Trimethylbenzene	not applicable	not applicable	not applicable	not applicable	not applicable
Cumene	not applicable	not applicable	not applicable	not applicable	not applicable

12. ECOLOGICAL INFORMATION

Product Information

No information available.

Component Information

Component	Toxicity to Algae	Toxicity to Fish	Microtox	Water Flea	log Pow
Ethyl benzene	EC50 1.7 - 7.6 mg/L Pseudokirchneriella subcapitata 96 h EC50 2.6 - 11.3 mg/L Pseudokirchneriella subcapitata 72 h EC50= 4.6 mg/L Pseudokirchneriella subcapitata 72 h EC50> 438 mg/L Pseudokirchneriella subcapitata 96 h	LC50 11.0-18.0 mg/L Oncorhynchus mykiss 96 h LC50 7.55-11 mg/L Pimephales promelas 96 h LC50 9.1-15.6 mg/L Pimephales promelas 96 h LC50= 32 mg/L Lepomis macrochirus 96 h LC50= 4.2 mg/L Oncorhynchus mykiss 96 h LC50= 9.6 mg/L Poecilia reticulata 96 h	EC50 = 9.68 mg/L 30 min EC50 = 96 mg/L 24 h	EC50 1.8 - 2.4 mg/L 48 h	3.118
2-Ethyl hexanol	EC50= 11.5 mg/L Desmodesmus subspicatus 72 h	LC50 10.0-33.0 mg/L Lepomis macrochirus 96 h LC50 27-29.5 mg/L Pimephales promelas 96 h LC50 32-37 mg/L Oncorhynchus mykiss 96 h LC50= 29.7 mg/L Pimephales promelas 96 h LC50> 7.5 mg/L Oncorhynchus mykiss 96 h	no data available	EC50 = 39 mg/L 48 h	3.1
1,3,5- Trimethylbenzene	no data available	LC50= 3.48 mg/L Pimephales promelas 96 h LC50= 7.72 mg/L Pimephales promelas 96 h	no data available	EC50 = 50 mg/L 24 h	N/A
Xylenes (o-, m-, p- isomers)	no data available	LC50 13.1-16.5 mg/L Lepomis macrochirus 96 h LC50 13.5-17.3 mg/L Oncorhynchus mykiss 96 h LC50 2.661-4.093 mg/L Oncorhynchus mykiss 96 h LC50 23.53-29.97 mg/L Pimephales promelas 96 h LC50 30.26-40.75 mg/L Poecilia reticulata 96 h LC50 7.711-9.591 mg/L Lepomis macrochirus 96 h LC50= 13.4 mg/L Pimephales promelas 96 h LC50= 19 mg/L Lepomis macrochirus 96 h LC50= 780 mg/L Cyprinus carpio 96 h LC50> 780 mg/L Cyprinus carpio 96 h	EC50 = 0.0084 mg/L 24 h	LC50 = 0.6 mg/L 48 h EC50 = 3.82 mg/L 48 h	2.77 - 3.15
2-Ethylhexyl nitrate	no data available	LC50= 116 mg/L Salmo gairdneri 48 h	EC50 = 100 mg/L 15 min	no data available	4.14
Petroleum distillates, hydrotreated light	no data available	LC50= 2.2 mg/L Lepomis macrochirus 96 h LC50= 2.4 mg/L Oncorhynchus mykiss 96 h LC50= 45 mg/L Pimephales promelas 96 h	no data available	LC50 = 4720 mg/L 96 h	N/A
Naphtha (petroleum), hydrotreated heavy	no data available	LC50= 2200 mg/L Pimephales promelas 96 h	no data available	LC50 = 2.6 mg/L 96 h	N/A
Naphtha (petroleum), heavy aromatic	EC50= 2.5 mg/L Skeletonema costatum 72 h	LC50= 1740 mg/L Lepomis macrochirus 96 h LC50= 19 mg/L Pimephales promelas 96 h LC50= 2.34 mg/L Oncorhynchus mykiss 96 h LC50= 41 mg/L Pimephales promelas 96 h LC50= 45 mg/L Pimephales promelas 96 h	no data available	EC50 = 0.95 mg/L 48 h	2.9 - 6.1
Petroleum naphtha, light aromatic	no data available	LC50= 9.22 mg/L Oncorhynchus mykiss 96 h	no data available	EC50 = 6.14 mg/L 48 h	N/A
Naphthalene	EC50= 0.4 mg/L Skeletonema costatum 72 h	LC50 0.91-2.82 mg/L Oncorhynchus mykiss 96 h LC50 5.74-6.44 mg/L Pimephales promelas 96 h LC50= 1.6 mg/L Oncorhynchus mykiss 96 h LC50= 1.99 mg/L Pimephales promelas 96 h LC50= 31.0265 mg/L Lepomis macrochirus 96 h	EC50 = 0.93 mg/L 30 min EC50 > 20 mg/L 18 h	EC50 1.09 - 3.4 mg/L 48 h EC50 = 1.96 mg/L 48 h LC50 = 2.16 mg/L 48 h	3.3 at 20 °C
1,2,4- Trimethylbenzene	no data available	LC50 7.19-8.28 mg/L Pimephales promelas 96 h LC50= 7.72 mg/L Pimephales promelas 96 h	no data available	EC50 = 6.14 mg/L 48 h	3.63
Cumene	EC50= 2.6 mg/L Pseudokirchneriella subcapitata 72 h	LC50 6.04-6.61 mg/L Pimephales promelas 96 h LC50= 2.7 mg/L Oncorhynchus mykiss 96 h LC50= 4.8 mg/L Oncorhynchus mykiss 96 h LC50= 5.1 mg/L Poecilia reticulata 96 h	EC50 = 0.89 mg/L 5 min EC50 = 1.10 mg/L 15 min EC50 = 1.48 mg/L 30 min EC50 = 172 mg/L 24 h	EC50 7.9 - 14.1 mg/L 48 h EC50 = 0.6 mg/L 48 h	3.55 at 23 °C

Persistence and Degradability

No information available.

Bioaccumulation

No information available.

Mobility

No information available.

13. DISPOSAL CONSIDERATIONS

Product Disposal

Dispose of in accordance with local regulations.

Container Disposal

Empty containers should be taken for local recycling, recovery, or waste disposal.

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name <119 gals= Not Regulated > 119 gals = Petroleum Distillates, N.O.S.
Hazard Class 3
UN-No UN1268
Packing Group III
Marine Pollutant Description This product contains a chemical which is listed as a marine pollutant according to DOT. UN1268, Petroleum Distillates, N.O.S.,(Naphtha, 2-Ethylhexyl Nitrate),3,III, Marine Pollutant

TDG

Proper shipping name <119gal = Not Regulated >119gals = Petroleum Distillates, N.O.S.
Hazard Class 3
UN-No UN1268
Packing Group III
Marine Pollutant Description This product contains a chemical which is listed as a marine pollutant according to TDG. UN1268, Petroleum Distillates, N.O.S.,(Naphtha, 2-Ethylhexyl Nitrate),3,III,Marine Pollutant

ICAO

UN-No UN3082
Proper Shipping Name Environmentally Hazardous Substance, Liquid, N.O.S.,
Hazard Class 9
Packing Group III
Shipping Description UN3082, Environmentally Hazardous Substance, Liquid, N.O.S.,(2-Ethylhexyl Nitrate),9,III, Marine Pollutant

IATA

UN-No UN3082
Proper Shipping Name Environmentally Hazardous Substance, Liquid, N.O.S.
Hazard Class 9
Packing Group III
ERG Code 171
Shipping Description UN3082, Environmentally Hazardous Substance, Liquid, N.O.S.,(2-Ethylhexyl Nitrate),9,III, Marine Pollutant

IMDG/IMO

Proper Shipping Name Environmentally Hazardous Substance, Liquid, N.O.S.
Hazard Class 9
UN-No UN3082
Packing Group III
Marine Pollutant Description This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO
Shipping Description UN3082, Environmentally Hazardous Substance, Liquid, N.O.S.,(2-Ethylhexyl Nitrate),9,III, Marine Pollutant

15. REGULATORY INFORMATION

Inventories

TSCA Complies
DSL Complies

U.S. Federal Regulations

SARA 313

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

Component	CAS-No	Weight %	SARA 313 - Threshold Values
Ethyl benzene	100-41-4	0.1-1	0.1 % de minimis concentration
Xylenes (o-, m-, p- isomers)	1330-20-7	1-5	1.0 % de minimis concentration
Naphthalene	91-20-3	1-5	0.1 % de minimis concentration
1,2,4- Trimethylbenzene	95-63-6	3-7	1.0 % de minimis concentration
Cumene	98-82-8	1-5	1.0 % de minimis concentration

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Chronic Health Hazard	Fire Hazard	Sudden Release of Pressure Hazard	Reactive Hazard
Yes	Yes	Yes	No	No

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
Ethyl benzene	Not applicable	Not applicable
2-Ethyl hexanol	Not applicable	Not applicable
1,3,5- Trimethylbenzene	Not applicable	Not applicable
Xylenes (o-, m-, p- isomers)	Not applicable	Not applicable
2-Ethylhexyl nitrate	Not applicable	Not applicable
Petroleum distillates, hydrotreated light	Not applicable	Not applicable

Naphtha (petroleum), hydrotreated heavy	Not applicable	Not applicable
Naphtha (petroleum), heavy aromatic	Not applicable	Not applicable
Petroleum naphtha, light aromatic	Not applicable	Not applicable
Naphthalene	Not applicable	Not applicable
1,2,4- Trimethylbenzene	Not applicable	Not applicable
Cumene	Not applicable	Not applicable

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

B3 Combustible liquid, D2A Very toxic materials.



16. OTHER INFORMATION

Prepared By Dan Hollas
 Supercedes Date 10/04/2006
 Issuing Date 08/30/2010
 Reason for Revision No information available.
 Glossary No information available.
 List of References. No information available.

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