



Diesel Fuel Conditioner

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Diesel Fuel Conditioner
Product code : 3325

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use : Fuels

1.3. Details of the supplier of the safety data sheet

Bardahl Manufacturing Corporation
1400 NW 52nd Street
Seattle, WA 98107
T 206-783-4851 - F 206-784-3219
jackie.leung@bardahl.com - www.bardahl.com

1.4. Emergency telephone number

Emergency number : 800-424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Flammable liquids, Category 4	Combustible liquid
Skin corrosion/irritation, Category 2	Causes skin irritation
Germ cell mutagenicity, Category 1B	May cause genetic defects
Carcinogenicity, Category 1B	May cause cancer
Specific target organ toxicity — Repeated exposure, Category 2	May cause damage to organs through prolonged or repeated exposure
Aspiration hazard, Category 1	May be fatal if swallowed and enters airways
Hazardous to the aquatic environment — Chronic Hazard, Category 2	Toxic to aquatic life with long lasting effects

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

Combustible liquid
May be fatal if swallowed and enters airways
Causes skin irritation
May cause genetic defects
May cause cancer
May cause damage to organs through prolonged or repeated exposure
Toxic to aquatic life with long lasting effects

Precautionary statements (GHS-US) :

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Keep away from open flames, sparks. - No smoking
Do not breathe mist, vapours
Wash hands thoroughly after handling
Avoid release to the environment
Wear eye protection, protective gloves
If swallowed: Immediately call a POISON CENTER
If on skin: Wash with plenty of water
If exposed or concerned: Get medical advice/attention
Get medical advice/attention if you feel unwell
Specific treatment (see supplemental first aid instruction on this label)
Do NOT induce vomiting
If skin irritation occurs: Get medical advice/attention

Diesel Fuel Conditioner

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Take off contaminated clothing and wash it before reuse
In case of fire: Use alcohol resistant foam, BC-powder, carbon dioxide (CO₂) to extinguish
Collect spillage
Store in a well-ventilated place. Keep cool
Store locked up
Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Petroleum distillate	(CAS No) 68476-34-6	50 - 80	Flam. Liq. 4, H227 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Carc. 2, H351 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
2-ethylhexyl nitrate	(CAS No) 27247-96-7	10 - 20	Acute Tox. 4 (Inhalation), H332 Aquatic Chronic 2, H411
hydrocarbons, C10-13, n-alkanes, isoalkanes, cyclics, < 2% aromatics	(CAS No) 64742-48-9	1 - 5	Muta. 1B, H340 Carc. 1B, H350 Asp. Tox. 1, H304
2-Ethylhexanol	(CAS No) 104-76-7	1 - 5	Flam. Liq. 4, H227 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 STOT SE 3, H335 Aquatic Acute 3, H402
Mineral Oil	(CAS No) 64742-54-7	0.1 - 1	Carc. 1B, H350

Full text of hazard classes and H-statements : see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact : Rinse eyes with water as a precaution.
First-aid measures after ingestion : Do not induce vomiting. Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/injuries after skin contact : Irritation.
Symptoms/injuries after ingestion : Risk of lung oedema.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Combustible liquid.
Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

Diesel Fuel Conditioner

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : No open flames, no sparks, and no smoking. Only qualified personnel equipped with suitable protective equipment may intervene. Do not breathe mist, vapours.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Do not breathe mist, vapours. Avoid contact with skin and eyes.

Hygiene measures : Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool. Store locked up.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

hydrocarbons, C10-13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-48-9)

ACGIH	ACGIH TWA (mg/m ³)	1200 mg/m ³
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ACGIH	ACGIH TWA (ppm)	184 ppm
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Not applicable

Mineral Oil (64742-54-7)

ACGIH	ACGIH TWA (mg/m ³)	5 mg/m ³
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Not applicable

Petroleum distillate (68476-34-6)

Not applicable

2-Ethylhexanol (104-76-7)

Not applicable

2-ethylhexyl nitrate (27247-96-7)

Not applicable

Diesel Fuel Conditioner

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

8.2. Exposure controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Hand protection	: Protective gloves.
Eye protection	: Safety glasses.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: Wear respiratory protection.
Environmental exposure controls	: Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: amber
Odour	: characteristic
Odour threshold	: No data available
pH	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 62.2 °C PMCC typical
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0.852 g/cm ³ typical
Solubility	: No data available
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: 3.8 cSt @ 40 C typical
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Oxidizing agent.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Diesel Fuel Conditioner

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

hydrocarbons, C10-13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-48-9)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 5000 mg/kg
LC50 inhalation rat (mg/l)	> 4.9 g/m ³ (4 hr)

Petroleum distillate (68476-34-6)	
LD50 oral rat	> 5000 mg/kg (Rat)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	> 5 mg/l/4h (Rat)
ATE US (gases)	4500.000 ppmv/4h
ATE US (vapours)	11.000 mg/l/4h
ATE US (dust,mist)	1.500 mg/l/4h

2-Ethylhexanol (104-76-7)	
LD50 oral rat	3290 mg/kg bodyweight (Rat; Equivalent or similar to OECD 401; Experimental value)
LD50 dermal rat	> 3000 mg/kg bodyweight (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)
LD50 dermal rabbit	> 2600 mg/kg bodyweight (Rabbit; Experimental value; Equivalent or similar to OECD 402)
ATE US (oral)	3290.000 mg/kg bodyweight
ATE US (gases)	4500.000 ppmv/4h
ATE US (vapours)	11.000 mg/l/4h
ATE US (dust,mist)	1.500 mg/l/4h

2-ethylhexyl nitrate (27247-96-7)	
LD50 oral rat	> 9640 mg/kg (Rat)
LD50 dermal rabbit	> 4820 mg/kg (Rabbit)
ATE US (gases)	4500.000 ppmv/4h
ATE US (vapours)	11.000 mg/l/4h
ATE US (dust,mist)	1.500 mg/l/4h

Skin corrosion/irritation : Causes skin irritation.
 Serious eye damage/irritation : Not classified
 Respiratory or skin sensitisation : Not classified
 Germ cell mutagenicity : May cause genetic defects.
 Carcinogenicity : May cause cancer.

Reproductive toxicity : Not classified
 Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : May cause damage to organs through prolonged or repeated exposure.

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

Symptoms/injuries after skin contact : Irritation.
 Symptoms/injuries after ingestion : Risk of lung oedema.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life with long lasting effects.

hydrocarbons, C10-13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-48-9)	
LC50 fish 2	> 100 mg/l (LC50)
EC50 Daphnia 2	> 100 mg/l (EC50)
Threshold limit algae 2	> 100 mg/l (EC50)

Diesel Fuel Conditioner

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

2-Ethylhexanol (104-76-7)	
EC50 Daphnia 1	39 mg/l (EC50; EU Method C.2; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
LC50 fish 2	17.1 mg/l (LC50; EU Method C.1; 96 h; Leuciscus idus; Flow-through system; Fresh water; Experimental value)
2-ethylhexyl nitrate (27247-96-7)	
Threshold limit algae 1	3.22 mg/l (EC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value)

12.2. Persistence and degradability

hydrocarbons, C10-13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-48-9)	
Persistence and degradability	Readily biodegradable in water. Biodegradability in soil: no data available. Adsorbs into the soil. Low potential for mobility in soil. Photooxidation in the air.
Petroleum distillate (68476-34-6)	
Persistence and degradability	Inherently biodegradable. No (test)data on mobility of the components available.
2-Ethylhexanol (104-76-7)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.
2-ethylhexyl nitrate (27247-96-7)	
Persistence and degradability	Not readily biodegradable in water.

12.3. Bioaccumulative potential

hydrocarbons, C10-13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-48-9)	
Bioaccumulative potential	Bioaccumable.
Petroleum distillate (68476-34-6)	
Log Pow	3.9 - 6
2-Ethylhexanol (104-76-7)	
BCF other aquatic organisms 1	25.33 (BCF; BCFWIN)
Log Pow	2.9 (Experimental value; OECD 117: Partition Coefficient (n-octanol/water), HPLC method; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
2-ethylhexyl nitrate (27247-96-7)	
Log Pow	5.24 (Test data; OECD 117: Partition Coefficient (n-octanol/water), HPLC method)
Bioaccumulative potential	High potential for bioaccumulation (Log Kow > 5).

12.4. Mobility in soil

hydrocarbons, C10-13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-48-9)	
Surface tension	0.026 N/m (20 °C)
Petroleum distillate (68476-34-6)	
Surface tension	0.025 N/m
2-Ethylhexanol (104-76-7)	
Surface tension	0.000047 N/m (20 °C; 0.81 g/l)
Log Koc	Koc,PCKOCWIN v1.66; 26.01; Calculated value
2-ethylhexyl nitrate (27247-96-7)	
Log Koc	Koc,OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC); 3.75; Experimental value

12.5. Other adverse effects

Effect on the global warming : No known effects from this product.
GWPmix comment : No known effects from this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Diesel Fuel Conditioner

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not applicable

TDG

Not applicable

Transport by sea

UN-No. (IMDG) : 3082
Proper Shipping Name (IMDG) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Class (IMDG) : 9 - Miscellaneous dangerous substances and articles
Packing group (IMDG) : III - substances presenting low danger
Limited quantities (IMDG) : 5 L
Marine pollutant : Yes (IMDG only)



Air transport

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Diesel Fuel Conditioner

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

hydrocarbons, C10-13, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-48-9)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Mineral Oil (64742-54-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Petroleum distillate (68476-34-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

2-Ethylhexanol (104-76-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

2-ethylhexyl nitrate (27247-96-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

No additional information available

Diesel Fuel Conditioner

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 16: Other information

Revision date : 03/17/2017

Full text of H-statements:

H227	Combustible liquid
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H340	May cause genetic defects
H350	May cause cancer
H351	Suspected of causing cancer
H373	May cause damage to organs through prolonged or repeated exposure
H402	Harmful to aquatic life
H411	Toxic to aquatic life with long lasting effects

NFPA health hazard

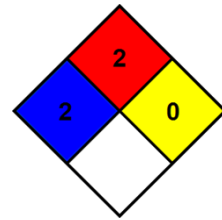
: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA fire hazard

: 2 - Must be moderately heated or exposed to relatively high temperature before ignition can occur.

NFPA reactivity

: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health

: 2 Moderate Hazard - Temporary or minor injury may occur

Flammability

: 2 Moderate Hazard - Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100 F but below 200 F. (Classes II & IIIA)

Physical

: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal protection

: B

B - Safety glasses, Gloves

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product