

Marine

Safety Data Sheet

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



SECTION 1: IDENTIFICATION OF PRODUCT/COMPANY/SUPPLIER

1.1 Product identifiers

Product name: Marine

1.2 Relevant identified uses of the product and restrictions on use

Recommended uses: Diesel Fuel Additive
Restrictions on use: For Industrial and Professional Use

1.3 Details of the supplier of the safety data sheet

Company name: Opti-Lube Inc.
Address: 1646 W Business Park Drive, Suite B
City/State/Zip: Orem, UT 84058, USA
Website: www.opti-lube.com
Phone number: 801-491-3717

1.4 Emergency response number

Hazmat Line: +1 656 208 0809

SECTION 2: HAZARDS IDENTIFICATION

2.1 GHS Hazard classification/statements according to [29 CFR 1910.1200](#) (OSHA):

Flammable Liquids, Category 3: H226 – Flammable liquid and vapor
Aspiration Hazard, Category 1: H304 – May be fatal if swallowed and enters airways
Acute Dermal Toxicity, Category 4: H312 – Harmful if contact with skin
Skin Irritation, Category 2: H315 – Causes skin irritation
Skin Sensitization, Category 1: H317 – May cause an allergic skin reaction
Eye Irritation, Category 2A: H319 – Causes serious eye irritation
Carcinogenicity, Category 2: H351 – Suspected of causing cancer
Reproductive Toxicity, Category 2: H361 – Suspected of damaging the unborn child
Aquatic Chronic, Category 2: H411 – Toxic to aquatic life with long-lasting effects

2.2 GHS Label Elements according to [29 CFR 1910.1200](#) (OSHA):

Pictogram:



Signal word: Danger!

2.3 GHS Precautionary Statements according to [29 CFR 1910.1200](#) (OSHA):

P203: Obtain, read, and follow all safety instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources.

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- P233:** Keep container tightly closed.
- P240:** Ground and bond container and receiving equipment.
- P241:** Use explosion proof electrical, ventilating, lighting equipment.
- P242:** Use only non-sparking tools.
- P243:** Take precautionary measures against static discharge.
- P261:** Avoid breathing dust/fume/gas/mist/vapors/spray.
- P264:** Wash hands/skin thoroughly after handling.
- P270:** Do not eat, drink or smoke when using the product.
- P272:** Contaminated work clothing should not be allowed out of the workplace.
- P273:** Avoid release to the environment.
- P280:** Wear protective gloves/protective clothing/eye protection/face protection.
- P301+P310:** IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.
- P304+P340:** IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P302+P352:** IF ON SKIN: Wash with plenty of soap and water.
- P303+P361+P353:** IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P332+P313:** If skin irritation occurs: Get medical advice/attention.
- P305+P351+P338:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
- P337+P313:** If eye irritation persists: Get medical advice/attention.
- P308+P313:** IF exposed or concerned: Get medical advice/attention.
- P370+P378:** In case of fire: Use water fog, foam, dry chemical powder, and CO₂ for extinction.
- P403+P235:** Store in a well-ventilated place. Keep cool.
- P405:** Store locked up.
- P501:** Dispose of contents/container to an approved waste disposal plant.

2.4 Other Hazards

None known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable.

3.2 Mixtures

Chemical Name	CAS Number	Concentration
2-Ethylhexyl Nitrate	27247-96-7	10.5-28%
Solvent Naphtha, Heavy Aromatic	64742-94-5	4.9-9.1%
1,2,4-Trimethylbenzene	95-63-6	3.5-9.1%
Soy methyl ester	67784-80-9	5%
2-Butoxyethanol	111-76-2	2.5-5%
Solvent Naphtha, Light Aromatic	64742-95-6	0.7-3.5%
Xylene	1330-20-7	0.35-3.5%
tert-Butylbenzene	98-06-6	1.0-2.5%
1,3,5-Trimethylbenzene	108-67-8	0.07-1%
Cymenes	25155-15-1	0.07-1%
Cumene	98-82-8	0.35-1%

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Solvent naphtha, heavy aromatic	64742-94-5	0.1-1%
2-Ethylhexanol	104-76-7	0.1-1%
Naphthalene	91-20-3	0.1-1%
1,2,3,5-Tetramethylbenzene	527-53-7	0.1-1%
1,4-Diethylbenzene	105-05-5	0.1-1%
2,6-Di-tert-butylphenol	128-39-2	0.07-0.7%
Long-chain alkenyl amido alkyl ammonio acetate	25054-76-6	0.05-0.5%
1,2,3,4-Tetramethylbenzene	488-23-3	0.05-0.5%
1,2,3-Trimethylbenzene	526-73-8	0.05-0.5%
Methyl-n-propylbenzene	1074-43-7	0.05-0.5%
1H-Indene, 2-3-dihydro	496-11-7	0.05-0.5%

*The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret. There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measures

General: Take off 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. Wash contaminated clothing before reuse.

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.

If Swallowed: Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach contents do not enter the lungs.

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.

Skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention if irritation develops and persists.

4.2 Most important symptoms and effects, both acute and delayed

Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness or dizziness, headache, nausea, and vomiting. Direct contact with eye may cause temporary irritation.

4.3 Indication of any 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 under observation. Symptoms may be delayed.

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SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable methods: Water fog, foam, and carbon dioxide (CO₂). Dry chemical powder, carbon dioxide, sand, or earth can be used for small fires.

Unsuitable methods: Do not use water jet as an extinguisher as this may spread the fire.

5.2 Specific hazards arising from the substance/mixture

Vapors may form explosive mixtures with air. Vapors may travel considerable distances 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 the potential for static discharge, use proper grounding and bonding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased in the presence of small quantities of water and other contaminants. Material may float and ignite on the surface of water. During fire, gases hazardous to health may be formed.

5.3 Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. In case of fire and/or explosion, do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 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 mists or 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 truck 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 this SDS.

6.2 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.

6.3 Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. This product is miscible in water. Prevent product from entering drains.

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Large Spill: Stop the flow of material if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like sand or vermiculite to soak up the material and place in a suitable container for later disposal. Following product recovery, flush area with water.

Small Spill: Absorb with earth, sand, or other non-combustible material and transfer to containers for safe disposal. Wipe up with absorbent material. Clean surface thoroughly to remove residual contamination.

Never return spills to their original container for reuse. Put material in a suitable, covered, and labeled containers. For waste disposal, see Section 13 of this SDS.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety instructions have been read and understood. Do not handle, store, or open near open flames, sources of heat, or sources of ignition. Protect material from direct sunlight. When using, do not smoke. Use explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including combustible dusts 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, and vacuum truck operations. Take precautionary measures against static discharges. All equipment used when handling this product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing mists or vapors. Should be handled in closed systems if possible. Wear appropriate protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

7.2 Conditions for safe storage, including any compatibilities

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

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Exposure Controls

Occupational exposure limit values:

Chemical Name	Source	Value
Solvent Naphtha, Heavy Aromatic Naphthalene	ACGIH	TWA: 200 mg/m ³
	OSHA	TWA: 10 ppm (50 mg/m ³)
	ACGIH	TWA: 10 ppm (52 mg/m ³)
	NIOSH	TWA: 10 ppm (50 mg/m ³)

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1,2,4-Trimethylbenzene	OSHA ACGIH NIOSH	TWA: 25 ppm (125 mg/m ³) TWA: 10 ppm (52 mg/m ³) TWA: 25 ppm (125 mg/m ³)
1,3,5-Trimethylbenzene	OSHA ACGIH NIOSH	TWA: 25 ppm (125 mg/m ³) TWA: 10 ppm (123 mg/m ³) TWA: 25 ppm (125 mg/m ³)
Xylene	OSHA ACGIH NIOSH	TWA: 100 ppm (435 mg/m ³) TWA: 20 ppm TWA: 100 ppm (435 mg/m ³)
Cumene	OSHA ACGIH NIOSH	TWA: 50 ppm (245 mg/m ³) TWA: 5 ppm TWA: 50 ppm (245 mg/m ³)

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.

8.2 Personal Protective Equipment



Hand protection: Wear appropriate chemical resistant gloves.

Eye/Face protection: Wear safety glasses with side shields (or goggles) and a face shield.

Skin and body protection: Wear suitable protective clothing. Use of an impervious apron is recommended. Wear appropriate thermal protective clothing when necessary.

Respiratory protection: Chemical respirator with organic vapor cartridge and full facepiece. A NIOSH approved air purifying respirator with organic vapor cartridge may be used, but protection is limited. Use a positive pressure supplied air respirator if there is any potential for uncontrolled release.

Hygiene measures: 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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance:	Clear Liquid
Color:	Light Amber to Amber
Odor:	Aromatic Hydrocarbon
Odor Threshold:	Not determined
pH	Not determined
Melting Point:	Not determined
Boiling Point:	>200 °C (392 °F)
Flash Point:	141 °F (60.5 °C)

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Auto-ignition Temperature:	Not determined
Upper/Lower Explosive Limits:	Not determined
Vapor Pressure:	Not determined
Evaporation Rate:	Not determined
Flammability (Solid, Gas):	Not determined
Specific Gravity:	0.897 at 60 °F
Relative Density:	7.48 lbs/gal
Solubility in Water:	Not determined
Partition Coefficient (n-octanol / water):	Not determined
Decomposition Temperature:	Not determined
Viscosity	3.43 cSt @40 °C (calculated)

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

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

10.2 Chemical stability

Material is stable under normal conditions.

10.3 Possibility of Hazardous Reactions

No dangerous reactions known under conditions of normal use.

10.4 Conditions to avoid

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

10.5 Incompatible materials

Avoid contact with strong oxidizing agents, such as nitric and sulfuric acids, halogens, hydrogen peroxide and chlorinating agents. Incompatible with (strong) acids and (strong) bases. May burn or react violently with fluorine / oxygen mixtures with 50- 100% fluorine. Decomposes with heat. Avoid direct sunlight.

10.6 Hazardous decomposition products

In the case of fire, a complex mixture of airborne solids, liquids and gases, including carbon monoxide, carbon dioxide, smoke and other organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation. Thermal decomposition products may include C, CO, CO₂, H₂O, organic vapors.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity: Harmful in contact with skin

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/irritation: Causes serious eye irritation.

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Respiratory/Skin sensitization: May cause an allergic skin reaction.

Germ cell mutagenicity: No data is available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity: Suspected of causing cancer.

Reproductive toxicity: Suspected of damaging the unborn child.

Specific target organ toxicity - single exposure: Not classified based on available information.

Specific target organ toxicity - repeated exposure: Not classified based on available information.

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

SECTION 12: ECOLOGICAL INFORMATION

12.1 Ecotoxicity

Very toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment. The product hasn't been tested. The statement derived from the properties of the individual components.

Chemical Name	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
2,6-Di-tert-butylphenol	1.40 - Pimephales promelas	0.45 - Daphnia magna	1.20 (96 hr) - Pseudokirchneriella subcapitata
Solvent Naphtha, Heavy Aromatic	2.50 - Oncorhynchus mykiss	1.10 - Daphnia magna	1.30 (72 hr) - Pseudokirchneriella subcapitata
Naphthalene	1.60 - Oncorhynchus mykiss	1.96 - Daphnia magna	0.40 (72 hr) - Skeletonema costatum
Solvent Naphtha, Light Aromatic	9.20 - Oncorhynchus mykiss	3.20 - Daphnia magna	2.90 (72 hr) - Selenastrum capricornutum
1,3,5-Trimethylbenzene	12.52 - Carassius auratus	6.00 - Daphnia magna	25.00 (48 hr) - Scenedesmus quadricauda
Cumene	2.70 - Oncorhynchus mykiss	4.00 - Daphnia magna	2.60 (72 hr) - Selenastrum capricornutum
2-Ethylhexanol	17.10 - Leuciscus idus melanotus	39.00 - Daphnia magna	16.60 (72 hr) - Scenedesmus quadricauda
2-Ethylhexyl nitrate	1.88 - Dania rerio	0.83 - Daphnia magna	1000.00 (72 hr) - Pseudokirchneriella subcapitata

12.2 Persistence and Degradability

Expected to be inherently biodegradable.

12.3 Bioaccumulative potential

Potential bioaccumulation.

12.4 Mobility in soil

The product is insoluble in water.

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12.5 Other adverse effects

The product contains volatile organic compounds which have a photochemical ozone creation potential.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Waste Disposal: 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. Waste codes should be assigned in discussion between the user, the producer, and the waste disposal company. Dispose of in accordance with all Local, State, and Federal regulations.

Contaminated Packaging: Empty containers or liners may retain some product residues. Since emptied containers may retain product residues, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14: TRANSPORT INFORMATION

14.1 Transport information

UN Number: UN 1993

UN Proper Shipping Name: Flammable Liquid, N.O.S.

Transport Hazard Class: Class 3

Packing Group: III

Marine Pollutant: Environmental Hazardous Substance

*This material is not regulated for US DOT transportation in quantities less than 119 gallons per 49 CFR 173:150 (f)(1). Does not apply to transportation by vessel or aircraft.

*Per 49 CFR 171.4(c)(1) - Except when all or part of the transportation is by vessel, the requirements of this subchapter specific to marine pollutants does not apply to non-bulk packaging (<119 gallons) by motor car, rail, or aircraft.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health, and environment regulations/legislation specific for substance or mixture

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

Toxic Substance Control Act (TSCA) Inventory: All substances in this product are either listed or are exempt from listing on the TSCA Inventory.

Comprehensive Response Compensation and Liability Act (CERCLA):

Naphthalene (CAS 91-20-3)

Xylene (CAS 1330-20-7)

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Cumene (CAS 98-82-8)

SARA 302/304 Emergency Planning & Notification: Not regulated.

SARA 311/312 Hazard: See Section 2 of this SDS for GHS hazards associated with this product.

SARA 313 (TRI Reporting):

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

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

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

Clean Water Act (CWA) 311:

Xylene (CAS 1330-20-7)
Naphthalene (CAS 91-20-3)

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65):

This product can expose you to chemicals including Naphthalene and Cumene, which are known to the State of California to cause cancer. This product will expose you to chemicals known to the State of California to cause birth defects or reproductive harm. For more information go to ([Proposition 65 List of Chemicals](#)).

SECTION 16: OTHER INFORMATION

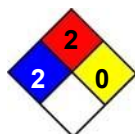
16.1 General information

Revision Date: 6-Mar-2026

Previous Revision: 16-June-2020

Version number: 2.0

National Fire Protection Association (NFPA) Rating:



16.2 Full Text of Abbreviations

CAS – Chemical Abstract Service
GHS – Globally Harmonized System
CFR – Code of Federal Regulations
OSHA – Occupational Safety and Health Administration
NIOSH – The National Institute for Occupational Safety and Health
ACGIH – American Conference of Governmental Industrial Hygienists
TWA – Time Weighted Average
LC50 – Lethal Concentration 50
EC50 – Effective Concentration 50

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ErC50 – Reduction in Growth Rate

UN – United Nations

DOT – Department of Transportation

TRI – Toxic Release Inventory

SARA – Superfunds Amendments and Reauthorization Act

SDS – Safety Data Sheet

16.3 Disclaimer

The information on this SDS is based on data which is considered to be accurate. Opti-Lube Inc., however, makes no guarantees or warranty, either expressed or implied of the accuracy or completeness of this information. The conditions or methods of handling, storage, use and disposal of the products are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of this product. This SDS was prepared and is to be used for this product. If the product is used as a component in another product, this SDS information may not be applicable.