
1. Chemical product and company identification

Product name: Lamina Ball Lube

Manufacturer: Exxon Mobil Corporation
3225 Gallows Road
Fairfax, VA 22037

Supplier: Anchor Lamina America, LLC
3650 South Derenzy Road
Bellaire, Michigan 49615

Contact: Supplier: Anchor Lamina America, LLC Manufacturer: Exxon Mobil Corporation
24-hour Emergency: 231-533-8646 609-737-4411
Product Technical Information: 231-533-8646 800-662-4525
MSDS Information: 231-533-8646 713-613-3661

2. Composition/information in ingredients

No reportable hazardous substance(s).

3. Hazards identification

This material is not considered to be hazardous according to regulatory guidelines (see MSDS Section 15). Under normal conditions of use, this product is not considered hazardous.

POTENTIAL HEALTH EFFECTS: Low odor of toxicity. Excessive exposure may result in eye, skin, or respiratory irritation. High-pressure injection under skin may cause serious damage. For further health/toxicological effects, see Section 11.

NFPA Hazard ID	Health: 0	Flammability: 1	Reactivity: 0
HMIS Hazard ID	Health: 0	Flammability: 1	Reactivity: 0

NOTE: This material should not be used for any other purpose than its intended use as a lubricant without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

4. First aid measures

Inhalation: Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

Skin contact: Immediately wash all contacted areas with soap and water. Remove contaminated clothing and shoes immediately, and discard or launder prior to re-use. Thoroughly clean shoes before re-use. If irritation occurs, consult a physician.

If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

Eye contact: In case of contact, immediately flush eyes with copious amounts of lukewarm water for at least 15 minutes. If irritation occurs, call a physician.

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Ingestion: First aid is normally not required. If conscious, give large quantities of water. Consult a physician immediately. If swallowed, do not induce vomiting, since there is an aspiration hazard. (If vomiting is induced, the product, while coming up the esophagus, can enter into the trachea and lungs, and cause damage.) Never induce vomiting or give anything by mouth to an unconscious person.

5. Fire-Fighting measures

Extinguishing Media: **Appropriate Extinguishing Media:** Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

Do not use a straight stream of water.

Fire Fighting: **Fire Fighting Instructions:** Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment, and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire, exposed surfaces, and protect personnel.

Hazardous Combustion Products: Incomplete combustion products, oxides of carbon, smoke, sulfur oxides, aldehydes.

Flammability Properties: **Flash Point [Method]:** >210 Celsius (410 Fahrenheit) [ASTM D-92]
Flammable Limits (Approximate volume % in air): LEL 0.9 UEL: 7.0
Autoignition Temperature: Not determined.

6. Accidental Release Measures

Notification Procedures: In the event of a spill or accidental release, immediately notify relevant authorities, in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center (NRC) can be reached at 800-424-8802 (toll free).

Spill Management: **Land Spill:** Stop leak if you can do it without risk. Recover by pumping, or with suitable absorbent. If necessary, dispose of adsorbed residues as directed in Section 13.

Water spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, and (in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

Personal Precautions: See Section 8.

Environmental Precautions: **Large Spills:** Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

7. Handling and storage

Handling: Prevent small spills and leakage to avoid slip hazard. Follow good hygiene practices. Avoid breathing vapors. Intentional misuse by deliberately concentrating and inhaling the product can be harmful or fatal. Avoid eye and skin contact. This material is a static accumulator.

Storage: Do not store in open or unlabeled containers. Keep container tightly closed. Keep container in a cool, well-ventilated area. Empty containers may contain harmful residue or vapors. Do not pressurize, cut, grind, drill, weld, solder, braze, or expose to heat, flame, sparks, or other sources of ignition. Do not attempt to clean and/or reuse container, since residue is difficult to remove. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

8. Exposure controls/personal protection

Exposure Limits/Standards: Exposure limits/standards for materials that can be formed when handling this product: When mists/aerosols can occur, the following are recommended:

For oil mists (mineral oil)

- The Occupational Safety and Health Administration (OSHA), Permissible Exposure Limit (PEL), 8-hour Time Weighted Average (TWA) exposure level is 5 milligrams of analyte per cubic meter of sampled air, on a weight-to-volume basis (mg/m^3).
- The American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV) 8-hour TWA is $5 \text{ mg}/\text{m}^3$, and the ACGIH Short-Term Exposure Limit (STEL) 15-minute TWA exposure level is $10 \text{ mg}/\text{m}^3$. (Sampled by method that does not collect vapor.)
- The National Institute for Occupational Safety and Health (NIOSH) Recommended Exposure Limit (REL): 8-hour TWA is $5 \text{ mg}/\text{m}^3$, and the NIOSH Short-Term Exposure Limit (STEL) 15-minute TWA exposure level is $10 \text{ mg}/\text{m}^3$.

Note: These limits/standards are for guidance only. Follow applicable regulations. Some states or areas may enforce more stringent exposure limits. For quality and reliable results, ensure that employee exposure air monitoring is performed by, or under the guidance of, a Certified Industrial Hygienist (CIH) by the American Board of Industrial Hygiene (ABIH).

Engineering Controls: The level of protection and types of controls necessary will vary depending upon potential exposure conditions. There are no special requirements under ordinary conditions of use, and with adequate ventilation. If mists are generated, use adequate ventilation, local exhaust or enclosures to control to below the exposure limits.

Personal Protection: Personal protective equipment (PPE) selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage. A full PPE Hazard Assessment may be required for your facility. Please refer to OSHA 29CFR1910.132 for guidance. Some states or areas may enforce more stringent requirements.

Respiratory Protection: No special requirements under ordinary conditions of use, and with adequate ventilation.

If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, a NIOSH-approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, for example 29CFR1910.134, if applicable. Some states or areas may enforce more stringent requirements.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive-pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air-purifying filter capacity/rating may be exceeded. Specialized training is required in these situations.

Hand Protection: No protection is ordinarily required under normal conditions of use.

If splashing or liquid contact can occur frequently, wear oil resistant gloves and/or other protective clothing. Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. PPE selection, use, and maintenance must be in accordance with regulatory requirements, for example OSHA 29CFR1910.132, if applicable. Some states or areas may enforce more stringent requirements.

Eye Protection: If contact is likely, safety glasses with side shields are recommended. If splashing is likely, wear chemical splash goggles with indirect air vents and full face shield.

Skin and Body Protection: No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material, and before eating, drinking, smoking, or using the bathroom, and at the end of the working period. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

Environmental Controls:

Please see Sections 6, 7, 12, 13.

9. Physical and Chemical Properties

Typical physical and chemical properties are given below. Consult the Manufacturer in Section 1 for additional data.

General Information

Physical State: Liquid
Color: Orange
Odor: Characteristic
Odor Threshold: Not determined

Important Health, Safety, and Environmental Information:

Relative Density (at 15°C): 0.866
Flash Point [Method]: >210°C [ASTM D-92]
Flammable Limits (Approximate volume % in air): LEL: 0.9 UEL: 7.0
Autoignition Temperature: Not determined
Boiling Point / Range: > 316°C (600°F)
Vapor Density (Air = 1): > 2 at 101kPa
Vapor Pressure: < 0.013 kPa (0.1 mm Hg) at 20°C
Evaporation Rate (n-butyl acetate = 1): Not determined
pH: Not determined.
Log Pow (n-Octanol/Water Partition Coefficient): > 3.5
Solubility in Water: Negligible
Viscosity: 220 cSt (220 mm²/sec) at 40°C | 25.2 cSt (25.2 mm²/sec) at 100°C
Oxidizing Properties: See Sections 3, 15, 16

Other Information:

Freezing Point: Not determined
Melting Point: Not applicable
Pour Point: -33°C (-27°F)

10. Stability and Reactivity

Stability:	Material is stable under normal conditions.
Conditions to avoid:	Excessive heat, and high energy sources of ignition.
Materials to avoid:	Strong oxidizers.
Hazardous Decomposition Products:	Under normal conditions of use, hazardous decomposition products should not be produced.
Hazardous Polymerization:	Will not occur.

11. Toxicological Information

Route of Exposure	Conclusion / Remarks
INHALATION	
<ul style="list-style-type: none"> Toxicity (Rat): LC50 > 5000 mg/m³ 	Minimally toxic. Based on test data for structurally similar materials.
<ul style="list-style-type: none"> Irritation: No end point data. 	Negligible hazard at ambient/normal handling temperatures. Based on assessment of the components.
INGESTION:	
<ul style="list-style-type: none"> Toxicity (Rat): LD50 > 2000 mg/kg 	Minimally toxic. Based on test data for structurally similar materials.
SKIN:	
<ul style="list-style-type: none"> Toxicity (Rabbit): LD50 > 2000 mg/kg 	Minimally toxic. Based on test data for structurally similar materials.
<ul style="list-style-type: none"> Irritation (Rabbit): Data available. 	Negligible irritation to skin at ambient temperatures. Based on test data for structurally similar materials.
EYE:	
<ul style="list-style-type: none"> Irritation (Rabbit): Data available. 	May cause mild, short-lasting discomfort to eyes. Based on test data for structurally similar materials.

Chronic/Other Effects: Contains synthetic base oils: Not expected to cause significant health effects under conditions of normal use, based on laboratory studies with the same or similar materials. Not mutagenic or genotoxic. Not sensitizing in test animals or humans. Consult the Manufacturer in Section 1 for additional data.

12. Ecological Information

The information given is based on data available for the material, the components of the material, and similar materials.

Ecotoxicity:	Material – Not expected to be harmful to aquatic organisms. Material – Not expected to demonstrate chronic toxicity to aquatic organisms.
Mobility:	Base oil component – Low solubility, floats and is expected to migrate from water to land. Expected to partition to sediment and wastewater solids.

13. Disposal Considerations

Disposal recommendations based on material, as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

Disposal Recommendations: Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products. Consult your local or regional authorities.

Regulatory Disposal Information: RCRA Information: The unused product, in the manufacturer's opinion, is not specifically listed by the EPA as hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity or reactivity and is not formulated with contaminants, as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated. Consult your local or regional authorities.

Empty Container Warning: Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safety stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal using a suitably qualified or licensed contractor and in accordance with governmental regulations. **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.**

14. Transport Information

Land (DOT): Not regulated for Land Transport.
Land (TDG): Not regulated for Land Transport.
Sea (IMDG): Not regulated for Sea Transport according to IMDG-Code.
Air (IATA): Not regulated for Air Transport.
Static Accumulator: Yes (50 picosiemens or less)

15. Regulatory Information

OSHA Hazard Communication Standard: When used for its intended purpose, this material is not classified as hazardous, in accordance with OSHA 29 CFR 1910.1200.

National Chemical Inventory Listing: EINECS, DSL, IECSC, TSCA, KECI

Special Cases:

Inventory	Status
PICCS	Restrictions Apply.

EPCRA: This material contains no extremely hazardous substances.

SARA (311/312) Reportable Hazard Categories: None.

SARA (313) Toxic Release Inventory: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

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The following ingredients are Cited on the Lists Below.:

Chemical Name	CAS Number	List Citations
Phenol, 4,4-Methylenebis(2,6-bis(1,1-dimethylethyl)-	118-82-1	5

1 = ACGIH All	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK	22 = NTP SUS
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK	23 = IARC 1
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK	24 = IARC 2A
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK	25 = IARC 2B
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	20 = FL RTK	26 = OSHA CARC
			21 = NTP CARC	27 = OSHA Z

Code key: CARC = Carcinogen; REPRO = Reproductive

16. Other Information

Notice to reader

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied, is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from us.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. Anchor Lamina America, L.L.C. shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this document. Employers have a duty to inform employees and others who may be affected of any hazards described in this document and of any precautions that should be taken.