

SAFETY DATA SHEET

SECTION 1) CHEMICAL PRODUCT AND MANUFACTURER'S IDENTIFICATION

Product ID: 496950

Product Name: ZenaLube Moly

Revision Date: Mar 03, 2020 **Date Printed:** Mar 04, 2020

Version: 2.0 **Supersedes Date:** Aug 12, 2019

Manufacturer's Name: Zenex International

Address: 1 Zenex Circle Cleveland, OH, US, 44146

Emergency Phone: 1-800-535-5053

Information Phone Number: (440)-232-4155

Fax:

Product/Recommended Uses: High Temp Dry Moly Lubricant

This product is not and cannot be distributed in commerce (as defined in TSCA section 3(5)) or processed (as defined in TSCA section 3(13)) for consumer paint or coating removal.

SECTION 2) HAZARDS IDENTIFICATION

Classification

Aerosols - Category 1

Gases Under Pressure - Liquefied Gas

Acute Toxicity Oral - Category 4

Eye Irritation - Category 2A

Skin Irritation - Category 2

Carcinogenicity - Category 1B

Germ Cell Mutagenicity - Category 1B

Reproductive Toxicity - Category 2

Specific Target Organ Toxicity - Repeated Exposure - Category 2

Specific Target Organ Toxicity -Single Exposure (Narcotic Effects) - Category 3

Pictograms



Signal Word

Danger

Hazardous Statements - Physical

H222 - Extremely flammable aerosol.

H280 - Contains gas under pressure; may explode if heated.

Hazardous Statements - Health

H302 - Harmful if swallowed.

H319 - Causes serious eye irritation.

- H315 - Causes skin irritation.
- H350 - May cause cancer.
- H340 - May cause genetic defects.
- H361 - Suspected of damaging fertility or the unborn child.
- H373 - May cause damage to organs through prolonged or repeated exposure.
- H336 - May cause drowsiness or dizziness.

Precautionary Statements - General

- P101 - If medical advice is needed, have product container or label at hand.
- P102 - Keep out of reach of children.
- P103 - Read label before use.

Precautionary Statements - Prevention

- P264 - Wash hands thoroughly after handling.
- P270 - Do not eat, drink or smoke when using this product.
- P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P211 - Do not spray on an open flame or other ignition source.
- P251 - Do not pierce or burn, even after use.
- P201 - Obtain special instructions before use.
- P202 - Do not handle until all safety precautions have been read and understood.
- P280 - Wear protective gloves, protective clothing, eye protection and face protection.
- P260 - Do not breathe mist, vapors or spray.
- P271 - Use only outdoors or in a well-ventilated area.

Precautionary Statements - Response

- P314 - Get medical attention if you feel unwell.
- P308 + P313 - IF exposed or concerned: Get medical attention.
- P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
- P330 - Rinse mouth.
- 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 attention.
- P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
- P332 + P313 - If skin irritation occurs: Get medical attention.
- P362 + P364 - Take off contaminated clothing and wash it before reuse.
- P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P312 - Call a POISON CENTER or doctor if you feel unwell.

Precautionary Statements - Storage

- P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.
- P403 + P405 - Store in a well-ventilated place. Store locked up.

Precautionary Statements - Disposal

- P501 - Dispose of contents and container in accordance with local, regional, national and international regulations.

SECTION 3) COMPOSITION, INFORMATION ON INGREDIENTS

CAS	Chemical Name	% By Weight
0000075-09-2	METHYLENE CHLORIDE	41% - 68%
0068476-86-8	Petroleum gases, liquefied, sweetened	17% - 29%
0000067-63-0	ISOPROPYL ALCOHOL	4% - 9%
0000108-88-3	TOLUENE	2% - 4%
0064742-95-6	AROMATIC HYDROCARBON MIXTURE >C9	0.0% - 0.7%

SECTION 4) FIRST-AID MEASURES

Inhalation

Remove source of exposure or move person to fresh air and keep comfortable for breathing.

If exposed/feel unwell/concerned: Get medical attention.

Eliminate all ignition sources if safe to do so.

Eye Contact

Remove source of exposure or move person to fresh air. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for a duration of 15-20 minutes. Take care not to rinse contaminated water into the unaffected eye or onto the face. If eye irritation persists: Get medical advice/attention.

Skin Contact

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash with plenty of lukewarm, gently flowing water for a duration of 15-20 minutes. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

IF exposed or concerned: Get medical advice/attention.

Ingestion

Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. If vomiting occurs naturally, lie on your side, in the recovery position.

Most Important Symptoms/Effects, Acute and Delayed

No data available.

Indication of Immediate Medical Attention and Special Treatment Needed

No data available.

SECTION 5) FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Dry chemical, foam, carbon dioxide. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam. Sand or earth may be used for small fires only. Do not direct a solid stream of water or foam into hot, burning pools. This may result in frothing and increased fire intensity.

Unsuitable Extinguishing Media

No data available.

Specific Hazards in Case of Fire

Contents under pressure. Keep away from ignition sources and open flames. Exposure of containers to extreme heat and flames can cause them to rupture often with violent force. Product is highly flammable and forms explosive mixtures with air, oxygen, and all oxidizing agents. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back.

During a fire, irritating and highly toxic gases may be generated during combustion or decomposition. High temperatures can cause sealed containers to rupture due to a build up of internal pressures. Cool with water.

Empty Containers retain product residue which may exhibit hazards of material; therefore do not pressurize, cut, glaze, weld or use for any other purposes.

Container could potentially burst or be punctured upon mechanical impact, releasing flammable vapors.

Fire-Fighting Procedures

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Water may be ineffective but can be used to cool containers exposed to heat or flame. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid.

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Special Protective Actions

Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6) ACCIDENTAL RELEASE MEASURES

Emergency Procedure

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch or walk through spilled material. Isolate hazard area and keep unnecessary people away. Remove all possible sources of ignition in the surrounding area. Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.

If spilled material is cleaned up using a regulated solvent, the resulting waste mixture may be regulated.

Recommended Equipment

Wear liquid tight chemical protective clothing in combination with positive pressure self-contained breathing apparatus (SCBA).

Personal Precautions

Avoid breathing vapor. Avoid contact with skin, eye or clothing. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Environmental Precautions

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

Methods and Materials for Containment and Cleaning up

Absorb liquids in vermiculite, dry sand, earth, or similar inert material and deposit in sealed containers for disposal.

SECTION 7) HANDLING AND STORAGE

General

Wash hands after use.

Do not get in eyes, on skin or on clothing.

Do not breathe vapors or mists.

Use good personal hygiene practices.

Eating, drinking and smoking in work areas is prohibited.

Remove contaminated clothing and protective equipment before entering eating areas.

Eyewash stations and showers should be available in areas where this material is used and stored.

Ventilation Requirements

Use only with adequate ventilation to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source.

Storage Room Requirements

Do not cut, drill, grind, weld, or perform similar operations on or near containers. Do not pressurize containers to empty them.

Store at temperatures below 120°F.

SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection

Wear eye protection with side shields or goggles. Wear indirect-vent, impact and splash resistant goggles when working with liquids. If additional protection is needed for entire face, use in combination with a face shield.

Skin Protection

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber is recommended to avoid skin sensitization. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Launder soiled clothes or properly disposed of contaminated material, which cannot be decontaminated.

Respiratory Protection

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed. Check with respiratory protective equipment suppliers.

Appropriate Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Chemical Name	OSHA TWA (mg/m3)	OSHA TWA (ppm)	OSHA STEL (mg/m3)	OSHA Carcinogen	OSHA Skin designation	OSHA Tables (Z1, Z2, Z3)	ACGIH TWA (mg/m3)	ACGIH TWA (ppm)
AROMATIC HYDROCARBON MIXTURE >C9	2000	500				1	[(L)[N159](L)[N800]]; [5 (I)[N159]5 (I)[N800]];	(L)[N159](L)[N800]
BENZENE		1 (a) / 25ceiling		1		1		0.5

ISOPROPYL ALCOHOL							200
METHYLENE CHLORIDE		25 (a)		1		1,2	50
Petroleum gases, liquefied, sweetened	2000	500				1	
TOLUENE	0.2	200 (a)/ 300 ceiling				1,2	20
XYLENE	435	100				1	100

Chemical Name	NIOSH STEL (ppm)	ACGIH STEL (mg/m3)	ACGIH STEL (ppm)	ACGIH Carcinogen	ACGIH TLV Basis	ACGIH Notations	NIOSH TWA (mg/m3)	NIOSH TWA (ppm)
AROMATIC HYDROCARBON MIXTURE >C9				[A2[N159]A2 [N800]]; [A4 [N159]A4 [N800]];	URT irr [N159]URT irr [N800]	[A2[N159]A2 [N800]]; [A4 [N159]A4 [N800]];		
BENZENE	1c		2.5	A1	Leukemia	Skin; A1; BEI		0.1c
ISOPROPYL ALCOHOL	500		400	A4	Eye & URT irr; CNS impair	A4; BEI	980	400
METHYLENE CHLORIDE				A3	COHb-emia; CNS impair	A3; BEI		b
Petroleum gases, liquefied, sweetened								
TOLUENE	150			A4	Visual impair; female repro; pregnancy loss	A4; BEI	375	100
XYLENE	150		150	A4	URT & eye irr; CNS impair	A4; BEI	435	100

Chemical Name	NIOSH STEL (mg/m3)	OSHA STEL (ppm)	NIOSH Carcinogen
AROMATIC HYDROCARBON MIXTURE >C9			
BENZENE		50(a)/ 10minutes.	1
ISOPROPYL ALCOHOL	1225		
METHYLENE CHLORIDE		125 /15 minutes	1
Petroleum gases, liquefied, sweetened			
TOLUENE	560	500ppm /10 minutes (a)	
XYLENE	655		

(C) - Ceiling limit, A1 - Confirmed Human Carcinogen, A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans, A4 - Not Classifiable as a Human Carcinogen, BEI - Substances for which there is a Biological Exposure Index or Indices, CNS - Central nervous system, COHb-emia - Carboxyhemoglobinemia, impair - Impairment, irr - Irritation, repro - reproductive, URT - Upper respiratory tract

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Density 7.55 lb/gal
Density VOC 2.59 lb/gal

% VOC 34.3%

Appearance	Liquid
Odor Threshold	N.A.
Odor Description	N.A.
pH	N.A.
Water Solubility	N.A.
Flammability	Flash point below 73°F/23°C
Vapor Pressure	N.A.
Flash Point	N.A.
Viscosity	N.A.
Lower Explosion Level	N.A.
Upper Explosion Level	N.A.
Vapor Density	N.A.
Melting Point	N.A.
Freezing Point	N.A.
Low Boiling Point	N.A.
High Boiling Point	N.A.
Decomposition Pt	N.A.
Auto Ignition Temp	N.A.
Evaporation Rate	Slower than ether

SECTION 10) STABILITY AND REACTIVITY

Stability

The product is stable under normal storage conditions.

Conditions to Avoid

Avoid heat, sparks, flame, high temperature and contact with incompatible materials.

Dropping containers may cause bursting.

Incompatible Materials

Avoid strong oxidizers, reducers, acids, and alkalis.

Hazardous Reactions/Polymerization

None known.

Hazardous Decomposition Products

No data available.

SECTION 11) TOXICOLOGICAL INFORMATION

Likely Route of Exposure

Inhalation, ingestion, skin absorption.

Skin Corrosion/Irritation

Causes skin irritation.

Serious Eye Damage/Irritation

Causes serious eye irritation.

Carcinogenicity

May cause cancer.

Germ Cell Mutagenicity

May cause genetic defects.

Reproductive Toxicity

Suspected of damaging fertility or the unborn child.

Respiratory/Skin Sensitization

No data available.

Specific Target Organ Toxicity - Single Exposure

May cause drowsiness or dizziness.

Specific Target Organ Toxicity - Repeated Exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration Hazard

No data available.

Acute Toxicity

Harmful if swallowed.

Acute Exposure

0000075-09-2 METHYLENE CHLORIDE

The substance is irritating to the eyes, skin and respiratory tract. It can cause effects on the CNS, blood, liver, heart and lungs. Exposure could cause carbon monoxide poisoning resulting in impaired functions. Exposure at high concentrations could cause lowering of consciousness and death. Methylene Chloride is a potent irritant of mucous membranes. If swallowed, the substance may cause vomiting and could result in aspiration pneumonitis.

Potential Health Effects - Miscellaneous

0000067-63-0 ISOPROPYL ALCOHOL

The following medical conditions may be aggravated by exposure: dermatitis, respiratory disease. Developmental toxicity was seen in rat's offspring at doses that were maternally toxic. Contact will cause moderate to severe redness and swelling, itching, tingling sensation, painful burning. May cause injury to the cornea of the eyes. Prolonged or repeated exposure may cause damage to any of the following organs/systems: liver. Ingestion studies on laboratory animals showed that very high oral doses caused increased liver and kidney weights.

0000075-09-2 METHYLENE CHLORIDE

Is an IARC, NTP or OSHA Carcinogen. There is limited evidence that this substance causes spontaneous abortions. Contact can severely irritate and burn the skin and eyes with possible eye damage. Skin contact may cause inflammation and burns. Inhalation of high concentrations can have narcotic effects; Carbon monoxide produced as a metabolite in the body.

0000108-88-3 TOLUENE

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system, kidneys, liver, respiratory system, skin. Can be absorbed through the skin in harmful amounts. Recurrent overexposure may result in liver and kidney injury. High airborne levels have produced irregular heart beats in animals and occasional palpitations in humans. Rats exposed to very high airborne levels have exhibited high frequency hearing deficits. The significance of this to man is unknown. WARNING: This chemical is known to the State of California to cause birth defects or other reproductive harm.

0064742-95-6 AROMATIC HYDROCARBON MIXTURE >C9

The following medical conditions may be aggravated by exposure: skin disorders. Laboratory studies with rats have shown that petroleum distillates can cause kidney damage and kidney or liver tumors. These effects were not seen in similar studies with guinea pigs, dogs, or monkeys. Several studies evaluating petroleum workers have not shown a significant increase of kidney damage or an increase in kidney or liver tumors.

Chronic Exposure

0000075-09-2 METHYLENE CHLORIDE

Inhalation exposure may result in neurological symptoms, including paraesthesiae, respiratory irritation and gastrointestinal disturbances. Long term exposure causes damage to the CNS and to the liver. Repeated or prolonged contact with skin may cause dermatitis.

0000108-88-3 TOLUENE

TERATOGENIC EFFECTS:Toluene has been Classified as POSSIBLE for humans.

Miscellaneous Health Effects

0000075-09-2 METHYLENE CHLORIDE

Exposure could cause carbon monoxide poisoning. This may result in impaired functions. Exposure at high concentrations could cause lowering of consciousness and death. The effects may be delayed.

0000067-63-0 ISOPROPYL ALCOHOL

LC50 (rat): 17000 ppm (4-hour exposure); cited as 12000 ppm (8-hour exposure) (18)

LD50 (oral, male rat): 4710 mg/kg (cited as 6.0 mL/kg) (19)

LD50 (oral, mouse): 3600 mg/kg (20, unconfirmed)

LD50 (dermal, rabbit): 12870 mg/kg (cited as 16.4 mL/kg) (14)

000075-09-2 METHYLENE CHLORIDE

LC50 (guinea pig): 11600 ppm (6-hour exposure) (7)

LC50 (rat): 57000 ppm (15-minute exposure) (8)

LC50 (mouse): 16186 ppm (8-hour exposure) (9)

LD50 (oral, rat): 2100 to 3000 mg/kg (1)

0000108-88-3 TOLUENE

LC50 (rat): 8800 ppm (4-hour exposure) (2)

LC50 (rat): 6000 ppm (6-hour exposure) (3)

LD50 (oral, rat): 2600 to 7500 mg/kg (3,5,11,17)

LD50 (oral, neonatal rat): less than 870 mg/kg (3)

LD50 (dermal, rabbit): 12,225 mg/kg (reported as 14.1 ml/kg) (1)

SECTION 12) ECOLOGICAL INFORMATION

Toxicity

No data available.

Persistence and Degradability

No data available.

Bio-Accumulative Potential

No data available.

Mobility in Soil

No data available.

Other Adverse Effects

No data available.

SECTION 13) DISPOSAL CONSIDERATIONS

Waste Disposal

Under RCRA, it is the responsibility of the user of the product, to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state, and local laws.

Empty containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

SECTION 14) TRANSPORT INFORMATION

	IATA Information	IMDG Information	U.S. DOT Information
UN number:	UN1950	UN1950	UN1950
Proper shipping name:	Aerosols, flammable	Aerosols	Aerosols
Hazard class:	2.1	2.1	2.1
Packaging group:	NA	NA	NA
Hazardous substance (RQ):		No Data Available	No Data Available
Marine Pollutant:		No Data Available	No Data Available
Note / Special Provision:	(LTD QTY)	(LTD QTY)	(LTD QTY)
Toxic-Inhalation Hazard:		No Data Available	No Data Available

SECTION 15) REGULATORY INFORMATION

CAS	Chemical Name	% By Weight	Regulation List
0000075-09-2	METHYLENE CHLORIDE	41% - 68%	SARA313, CERCLA, HAPS, SARA312, TSCA, RCRA, ACGIH, California Proposition 65 Cancer, OSHA
0068476-86-8	Petroleum gases, liquefied, sweetened	17% - 29%	SARA312, TSCA, OSHA
0000067-63-0	ISOPROPYL ALCOHOL	4% - 9%	SARA313, SARA312, VOC, TSCA, ACGIH, OSHA
0000108-88-3	TOLUENE	2% - 4%	SARA313, CERCLA, HAPS, SARA312, VOC, TSCA, RCRA, ACGIH, California Proposition 65 Developmental, OSHA
0064742-95-6	AROMATIC HYDROCARBON MIXTURE >C9	0.0% - 0.7%	SARA312, VOC, TSCA, ACGIH, OSHA
0001330-20-7	XYLENE	Trace	SARA313, CERCLA, HAPS, SARA312, VOC, TSCA, RCRA, ACGIH, OSHA,
0000071-43-2	BENZENE	Trace	SARA313, CERCLA, HAPS, SARA312, VOC, TSCA, RCRA, ACGIH, California Proposition 65 Cancer - Developmental - Toxicity Male, OSHA

This product is not and cannot be distributed in commerce (as defined in TSCA section 3(5)) or processed (as defined in TSCA section 3(13)) for consumer paint or coating removal.

SECTION 16) OTHER INFORMATION

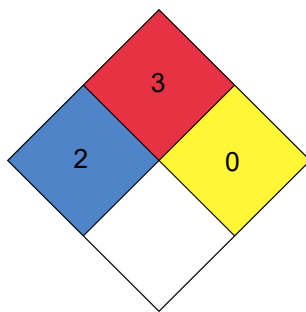
Glossary

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG- Canadian Transportation of Dangerous Goods; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center (US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL- Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self-Contained Breathing Apparatus; STEL- Short Term Exposure Limit; TCEQ- Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA- Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

HMIS

Health	/ 2
FLAMMABILITY	3
Physical Hazard	0
Personal Protection	B

NFPA



(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0

representing minimal hazards or risks, and 4 representing significant

hazards or risks

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