

SAFETY DATA SHEET

SECTION 1) CHEMICAL PRODUCT AND MANUFACTURER'S IDENTIFICATION

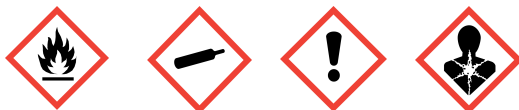
Product ID: 496605
Product Name: ZenaLube White Lithium Grease
Revision Date: May 30, 2024 **Date Printed:** May 30, 2024
Version: 3.0 **Supersedes Date:** Apr. 22, 2020
Manufacturer's Name: Zenex International
Address: 1 Zenex Circle Cleveland, OH, US, 44146
Emergency Phone: 1-800-535-5053
Information Phone Number: (440)-232-4155
Fax:
Product/Recommended Uses: Lubricant

SECTION 2) HAZARDS IDENTIFICATION

Classification

Aerosols - Category 1
Gases Under Pressure Liquefied Gas
Aspiration Hazard - Category 1
Carcinogenicity - Category 2
Eye Irritation - Category 2A
Skin Sensitizer - Category 1

Pictograms



Signal Word

Danger

Hazardous Statements - Physical

H222 - Extremely flammable aerosol
H280 - Contains gas under pressure; may explode if heated

Hazardous Statements - Health

H304 - May be fatal if swallowed and enters airways
H351 - Suspected of causing cancer.
H319 - Causes serious eye irritation
H317 - May cause an allergic skin reaction

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

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.

P264 - Wash hands thoroughly after handling.

P261 - Avoid breathing mist, vapors or spray.

P272 - Contaminated work clothing should not be allowed out of the workplace.

Precautionary Statements - Response

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.

P331 - Do NOT induce vomiting.

P308 + P313 - IF exposed or concerned: Get medical 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 attention.

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.

P333 + P313 - If skin irritation or a rash occurs: Get medical attention.

P362 + P364 - Take off contaminated clothing and wash it before reuse.

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
0064742-47-8	ISOPARAFFINIC PETROLEUM DISTILLATE	55% - 65%
0064742-52-5	MINERAL OIL, PETROLEUM DISTILLATES, HYDROTREATED (MILD) HEAVY NAPHTHENIC	15% - 30%
0064742-54-7	MINERAL OIL, PETROLEUM DISTILLATES, HYDROTREATED (MILD) HEAVY PARAFFINIC	15% - 30%
0068476-86-8	Petroleum gases, liquefied, sweetened	10% - 30%
0068457-79-4	ZINC DIALKYL DITHIOPHOSPHATE	0.1% - 3%
0013463-67-7	TITANIUM DIOXIDE	0.1% - 3%

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality.

SECTION 4) FIRST-AID MEASURES

Inhalation

Remove source of exposure or move person to fresh air and keep comfortable for breathing. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by the POISON CENTER/doctor. If breathing has stopped, trained personnel should begin rescue breathing or, if the heart has stopped, immediately start cardiopulmonary resuscitation (CPR) or automated external defibrillation (AED). If you feel unwell/If concerned: Get medical advice/attention.

Eye Contact

Rinse eyes cautiously with lukewarm, gently flowing water for 15 minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. 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

Wipe off with a towel. Wash with soap and water. Get medical attention if irritation persists.

Ingestion

Ingestion is not a likely route of exposure. Get medical attention if you feel unwell.

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, carbon dioxide, halon, or foam is recommended.

Unsuitable Extinguishing Media

Water may be ineffective but can be used to cool containers exposed to heat or flame. Halon may decompose into toxic materials and carbon dioxide will displace oxygen, take proper precautions when using these materials.

Specific Hazards Arising from the Chemical

This material may be ignited by extreme heat, sparks, flames or other ignition sources (static electricity). Vapors are heavier than air and will collect in low areas (sewers) or travel considerable distances. If containers are not cooled in a fire, they may rupture and ignite.

Precautions for Firefighters

Water may be used to cool containers to prevent pressure build-up and explosion when exposed to extreme heat.

Special Protective Equipment

Wear goggles and use a self-contained breathing apparatus. If water is used, fog nozzles are preferred.

SECTION 6) ACCIDENTAL RELEASE MEASURES

Emergency Procedure

Avoid breathing vapors. Ventilate area. Remove all sources of ignition. Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind; keep out of low areas. Assess the spill situation, as the spill may not evolve large amounts of hazardous airborne contaminants in many outdoor spill situations. It may be advisable in some cases to simply monitor the situation until spilled product is removed.

Protective Equipment

Wear safety glasses with side shields. Use of gloves approved from relevant standards that meet or are equivalent to OSHA 29 CFR 1910.132.

Personal Precautions

Avoid breathing vapors. Ventilate area.

Environmental Precautions

Stop spill/release if it can be done safely. Avoid run-off into storm sewers and ditches leading to waterways. If required, notify state and local authorities.

Methods and Materials for Containment and Cleaning up

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

SECTION 7) HANDLING AND STORAGE

General

Do not puncture or incinerate (burn) cans. Do not stick pins, nails, or any other sharp objects into opening on top of can. Do not spray in eyes. Do not take internally.

Ventilation Requirements

Use in a well-ventilated place.

Storage Room Requirements

Store and use in a cool, dry, well-ventilated area. Do not store above 120°F. See product label for additional information.

SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye protection

Wear safety glasses with side shields. Eyewash stations and showers should be available in areas where this material is used and stored.

Skin Protection

Use solvent-resistant protective gloves for prolonged or repeated contact.

Respiratory protection

Avoid breathing vapors. In restricted areas, use approved chemical/mechanical filters designed to remove a combination of particles and vapor. In confined areas, use an approved air line respirator or hood. A self-contained breathing apparatus is required for vapor concentrations above PEL/TLV limits.

Appropriate Engineering Controls

Ventilation should be sufficient to prevent inhalation of any vapors.

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)
ISOPARAFFINIC PETROLEUM DISTILLATE	2000	500				1	[(L)]; [5 (I)];	(L)
MINERAL OIL, PETROLEUM DISTILLATES, HYDROTREATED (MILD) HEAVY NAPHTHENIC	2000	500				1	[(L)[N159](L)[N800]]; [5 (I)[N159]5 (I)[N800]];	(L)[N159](L)[N800]
MINERAL OIL, PETROLEUM DISTILLATES, HYDROTREATED (MILD) HEAVY PARAFFINIC	2000	500				1	[(L)[N159](L)[N800]]; [5 (I)[N159]5 (I)[N800]];	(L)[N159](L)[N800]
Petroleum gases, liquefied, sweetened	2000	500				1		
TITANIUM DIOXIDE	15					1	0.2 (R)(Nano), 2.5 (R)	

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)
ISOPARAFFINIC PETROLEUM DISTILLATE				[A2]; [A4];	URT irr	[A2]; [A4];		
MINERAL OIL, PETROLEUM DISTILLATES, HYDROTREATED (MILD) HEAVY NAPHTHENIC				[A2][N159]A2 [N800]]; [A4 [N159]A4 [N800]];	URT irr [N159]URT irr [N800]	[A2][N159]A2 [N800]]; [A4 [N159]A4 [N800]];		

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)
MINERAL OIL, PETROLEUM DISTILLATES, HYDROTREATED (MILD) HEAVY PARAFFINIC				[A2 [N159] A2 [N800]]; [A4 [N159] A4 [N800]];	URT irr [N159]URT irr [N800]	[A2 [N159] A2 [N800]]; [A4 [N159] A4 [N800]];		
Petroleum gases, liquefied, sweetened								
TITANIUM DIOXIDE				A3	LRT irr; pneumoconiosis			b

Chemical Name	NIOSH STEL (mg/m3)	OSHA STEL (ppm)	NIOSH Carcinogen
ISOPARAFFINIC PETROLEUM DISTILLATE			
MINERAL OIL, PETROLEUM DISTILLATES, HYDROTREATED (MILD) HEAVY NAPHTHENIC			
MINERAL OIL, PETROLEUM DISTILLATES, HYDROTREATED (MILD) HEAVY PARAFFINIC			
Petroleum gases, liquefied, sweetened			
TITANIUM DIOXIDE			1

(L) - Exposure by all routes should be carefully controlled to levels as low as possible, A2 - Suspected Human Carcinogen, A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans, A4 - Not Classifiable as a Human Carcinogen, irr - Irritation, LRT - Lower respiratory tract, URT - Upper respiratory tract

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Density	6.10 lb/gal
Density VOC	1.46 lb/gal
% VOC	24.0%
Appearance	White Grease Aerosol
Odor Threshold	N.A.
Odor Description	Petroleum
pH	N.A.
Water Solubility	Negligible

Flammability	Extremely Flammable Aerosol
Vapor Pressure	>30 psi
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

Chemical Stability

The product is stable under normal storage conditions.

Possibility of Hazardous Reactions/Polymerization

None known.

Conditions To Avoid

High temperatures, spark and open flame.

Incompatible Materials

Strong oxidizing agents

Hazardous Decomposition Products

Hazardous decomposition products may include carbon dioxide, carbon monoxide, and other toxic fumes.

SECTION 11) TOXICOLOGICAL INFORMATION

Likely Route of Exposure

Inhalation, Ingestion, Skin contact, Eye contact
Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

Skin Corrosion/Irritation

Based on available data, the classification criteria are not met.

Serious Eye Damage/Irritation

Causes serious eye irritation

Carcinogenicity

Suspected of causing cancer.

Germ Cell Mutagenicity

Based on available data, the classification criteria are not met.

Reproductive Toxicity

Based on available data, the classification criteria are not met.

Respiratory/Skin Sensitization

May cause an allergic skin reaction

Specific Target Organ Toxicity - Single Exposure

No data available

Specific Target Organ Toxicity - Repeated Exposure

No data available

Aspiration Hazard

May be fatal if swallowed and enters airways

Acute Toxicity

No data available

Chronic Exposure

Based on available data, the classification criteria are not met.

Potential Health Effects - Miscellaneous

0013463-67-7 TITANIUM DIOXIDE

Is an IARC, NTP or OSHA carcinogen. In a lifetime inhalation test, lung cancers were found in some rats exposed to 250 mg/m³ respirable titanium dust. Analysis of the titanium dioxide concentrations in the rat's lungs showed that the lung clearance mechanism was overwhelmed and that the results at the massive 250 mg/m³ level are not relevant to the workplace. Results of a DuPont epidemiology study showed that employees who had been exposed to Titanium Dioxide were at no greater risk of developing lung cancer than were employees who had not been exposed to Titanium dioxide. No pulmonary fibrosis was found in any of the employees and no association was observed between Titanium dioxide exposure and chronic respiratory disease or x-ray abnormalities. Based on the results of this study DuPont concludes that titanium dioxide will not cause lung cancer or chronic respiratory disease in humans at concentrations experienced in the workplace.'

0064742-52-5 MINERAL OIL, PETROLEUM DISTILLATES, HYDROTREATED (MILD) HEAVY NAPHTHENIC

LD50 (Rodent - rat, Oral) : >5000 mg/kg, Toxic effects : Details of toxic effects not reported other than lethal dose value.

LD50 (Rodent - rabbit, Administration onto the skin) : >2000 mg/kg, Toxic effects : Details of toxic effects not reported other than lethal dose value.

0013463-67-7 TITANIUM DIOXIDE

LC50 (inhalation, Rat) : >5.09 mg/L ; 4-hr exposure

Test atmosphere: dust/mist

No mortality observed at this dose.

LD50 Rat: > 5000 mg/kg

LD50 Hamster: > 10000 mg/kg

0064742-54-7 MINERAL OIL, PETROLEUM DISTILLATES, HYDROTREATED (MILD) HEAVY PARAFFINIC

LD50 (Rodent - rat, Oral) : >15 gm/kg ,Toxic effects : Details of toxic effects not reported other than lethal dose value.

LD50(Rodent- rabbit, Administration onto the skin) : >5 gm/kg, Toxic effects : Details of toxic effects not reported other than lethal dose value.

SECTION 12) ECOLOGICAL INFORMATION

Ecotoxicity

Based on available data, the classification criteria are not met.

Persistence and Degradability

0064742-47-8 ISOPARAFFINIC PETROLEUM DISTILLATE

Expected to be inherently biodegradable. The volatile constituents will oxidize rapidly by photochemical reactions in air.

Bioaccumulative Potential

0064742-52-5 MINERAL OIL, PETROLEUM DISTILLATES, HYDROTREATED (MILD) HEAVY NAPHTHENIC

Contains constituents with the potential to bioaccumulate.

0064742-54-7 MINERAL OIL, PETROLEUM DISTILLATES, HYDROTREATED (MILD) HEAVY PARAFFINIC

Contains constituents with the potential to bioaccumulate.

Mobility in Soil

0064742-47-8 ISOPARAFFINIC PETROLEUM DISTILLATE

Floats on water. Contains volatile constituents. Evaporates within a day from water or soil surfaces. Large volumes may penetrate soil and could contaminate groundwater.

0064742-52-5 MINERAL OIL, PETROLEUM DISTILLATES, HYDROTREATED (MILD) HEAVY NAPHTHENIC

Liquid under most environmental conditions. Floats on water. If it enters soil, it will adsorb to soil particles and will not be mobile.

0064742-54-7 MINERAL OIL, PETROLEUM DISTILLATES, HYDROTREATED (MILD) HEAVY PARAFFINIC

Liquid under most environmental conditions. Floats on water. If it enters soil, it will adsorb to soil particles and will not be mobile.

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:	N.A.	N.A.	N.A.
Note / Special Provision:	(LTD QTY)	(LTD QTY)	(LTD QTY)

SECTION 15) REGULATORY INFORMATION

CAS	Chemical Name	% By Weight	Regulation List
0064742-47-8	ISOPARAFFINIC PETROLEUM DISTILLATE	55% - 65%	SARA312, VOC, TSCA - Toxic Substances Control Act (TSCA), ACGIH, OSHA
0064742-52-5	MINERAL OIL, PETROLEUM DISTILLATES, HYDROTREATED (MILD) HEAVY NAPHTHENIC	15% - 30%	SARA312, VOC, TSCA - Toxic Substances Control Act (TSCA), ACGIH, OSHA
0064742-54-7	MINERAL OIL, PETROLEUM DISTILLATES, HYDROTREATED (MILD) HEAVY PARAFFINIC	15% - 30%	SARA312, VOC, TSCA - Toxic Substances Control Act (TSCA), ACGIH, OSHA
0068476-86-8	Petroleum gases, liquefied, sweetened	10% - 30%	SARA312, TSCA - Toxic Substances Control Act (TSCA), OSHA
0068457-79-4	ZINC DIALKYL DITHIOPHOSPHATE	0.1% - 3%	SARA313, SARA312, TSCA - Toxic Substances Control Act (TSCA)
0013463-67-7	TITANIUM DIOXIDE	0.1% - 3%	SARA312, TSCA - Toxic Substances Control Act (TSCA), ACGIH, CA_Prop65 - California Proposition 65, CA_Prop65_Type_Toxicity_Cancer - CA_Proposition65_Type_Toxicity_Cancer, OSHA

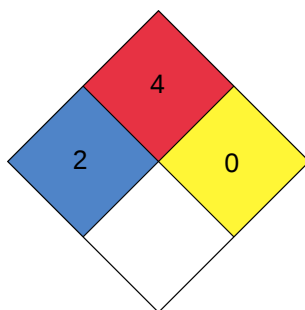
Glossary

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	1 2
FLAMMABILITY	4
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

Version 3.0:

Revision Date: May 30, 2024

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