



VERSION
GEAR.001

Liquid Guardian Full Synthetic Gear Oil

SAFETY DATA SHEET

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

SECTION 1: IDENTIFICATION

1.1 PRODUCT IDENTIFIER

Product Form: Mixture

Product Name: Liquid Guardian Full Synthetic Gear Oil

Product Grades: 75W-90LS, 75W-140LS, 80W-140

Synonyms: Synthetic Gear Oil

1.2 INTENDED USE OF THE PRODUCT

Gear Oil

1.3 NAME, ADDRESS, AND TELEPHONE OF THE RESPONSIBLE PARTY

Christensen Inc.

1060 Jadwin Ave. Richland, WA 99352

(509) 882-2115

www.ChristensenUSA.com

1.4 EMERGENCY TELEPHONE NUMBER

Emergency Number: 1-800-633-8253

SECTION 2: HAZARDS IDENTIFICATION

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Classification (GHS-US)

Not Classified

Full text of H-phrases: (see section 16).

2.2 LABEL ELEMENTS

GHS-US Labeling

Hazard Pictograms (GHS-US): None Required

Signal Word (GHS-US): Not Hazardous

Hazard Statements (GHS-US): None Required

Precautionary Statements (GHS-US):

Prevention

P273: Avoid release into the environment

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



SAFETY DATA SHEET

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

2.3 OTHER HAZARDS

The mixture consists of substances capable of producing an aspiration hazard. Aspiration may result in chemical pneumonia (fluid in the lungs), severe lung damage, respiratory failure, and even death.

2.4 UNKNOWN ACUTE TOXICITY (GHS-US)

17.29 percent of the mixture consists of ingredient(s) of unknown acute toxicity.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 SUBSTANCES

Not applicable

3.2 MIXTURE

Name	Product Identifier	% (w/w)	Classification (GHS-US)
Polybutene (Isobutylene / utane copolymer)	(CAS No) 9003-29-6	64 – 85, 0 – 10	Not Classified
Petroleum distillates, hydrotreated heavy naphthenic	CAS No) 64742-52-5	0 – 10	Not Classified
Dec-1-ene, homopolyme hydrogenated	(CAS No) 68037-01-4	0 – 11, 10 – 17, 27 – 39	Aspiration Hazard 1, H304
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	(CAS No) 68649-42-3	0 – 2.7	Aquatic Chronic 3, H402

* The specific chemical identity and/or exact percentage of composition have been withheld as a trade secret within the meaning of the OSHA Hazard Communication Standard [29 CFR 1910.1200].

* More than one of the ranges of concentration prescribed by Controlled Products Regulations has been used where necessary, due to varying composition.

Full text of H-phrases: (see section 16)

SECTION 4: FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible).

Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.

Skin Contact: Remove contaminated clothing. Drench affected area with water or soap and water for at least 15 minutes. Wash contaminated clothing before reuse. Obtain medical attention if irritation develops or persists.

Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

Ingestion: Do **NOT** induce vomiting. Rinse mouth. Call a **POISON CENTER** or doctor/physician if you feel unwell.



SAFETY DATA SHEET

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

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS BOTH ACUTE AND DELAYED

General: No known significant effects or critical hazards.

Inhalation: Overexposure may be irritating to the respiratory system.

Skin Contact: Repeated or prolonged skin contact may cause irritation.

Eye Contact: Direct contact with the eyes is likely irritating.

Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: No known significant effects or critical hazards.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

If you feel unwell, seek medical advice (show the label where possible).

SECTION 5: FIRE-FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Fire Hazard: Not flammable but will support combustion.

Explosion Hazard: Product is not explosive.

Reactivity: Hazardous reactions will not occur under normal conditions.

5.3 ADVICE FOR FIREFIGHTERS

Precautionary Measures Fire: Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present.

Fire Fighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Under fire conditions, may produce fumes, smoke, oxides of carbon and hydrocarbons.

Other Information/Reference to Other Sections: Refer to Section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

General Measures: Avoid all contact with skin, eyes, or clothing. Avoid breathing (vapor, mist, spray).

6.1.1 FOR NON-EMERGENCY PERSONNEL

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

6.1.2 FOR EMERGENCY PERSONNEL

Protective Equipment: Equip cleanup crew with proper protection.



SAFETY DATA SHEET

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

Emergency Procedures: Stop leak if safe to do so. Eliminate ignition sources. Ventilate area.

6.2 ENVIRONMENTAL PRECAUTIONS

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Spills should be contained with mechanical barriers. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4 REFERENCE TO OTHER SECTIONS

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

SECTION 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Additional Hazards When Processed: Any proposed use of this product in elevated-temperature processes should be thoroughly evaluated to assure that safe operating conditions are established and maintained. Practice good housekeeping – spillage can be slippery on smooth surface either wet or dry.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Technical Measures: Comply with applicable regulations.

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

Incompatible Materials: Strong acids, strong bases, strong oxidizers.

7.3 SPECIFIC END USE(S)

Gear Oil

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

8.2 EXPOSURE CONTROLS

Appropriate Engineering Controls: Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed.



SAFETY DATA SHEET

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

Personal Protective Equipment: Protective goggles. Gloves.



Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles or safety glasses.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

Environmental Exposure Controls: Do not allow the product to be released into the environment.

Consumer Exposure Controls: Do not eat, drink or smoke during use.

SECTION 9: PHYSICAL AND CHEMICAL

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Amber
Odor	Slight Hydrocarbon
Odor Threshold	Not available
pH	Not available
Evaporation Rate	Not available
Melting Point	Not available
Boiling Point	Not available
Flash Point	204C / 400C
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Flammability (solid, gas)	Not available
Lower Flammable Limit	Not available
Upper Flammable Limit	Not available
Vapor Pressure	Not available



SAFETY DATA SHEET

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

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES (CONT'D)

Relative Vapor Density at 20 °C	Not available
Relative Density	Not available
Specific Gravity	0.85
Solubility	Negligible
Partition Coefficient: N-Octanol/Water	Not available
Viscosity	Not available
Viscosity, Kinematic	Not available
Explosive Properties	Product is not explosive
Explosion Data – Sensitivity to Mechanical Impact	Not expected to present an explosion hazard due to mechanical impact
Explosion Data – Sensitivity to Static Discharge	Not expected to present an explosion hazard due to static discharge

SECTION 10: STABILITY AND REACTIVITY

10.1 REACTIVITY

Hazardous reactions will not occur under normal conditions.

10.2 CHEMICAL STABILITY

Stable under recommended handling and storage conditions (see section 7).

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

Hazardous polymerization will not occur.

10.4 CONDITIONS TO AVOID

Direct sunlight, extremely high or low temperatures, heat, hot surfaces, sparks, open flames, incompatible materials, and other ignition sources.

10.5 INCOMPATIBLE MATERIALS

Strong acids, strong bases, strong oxidizers.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

No decomposition expected under normal use and storage conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS - PRODUCT

Acute Toxicity: Not classified

LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Not classified

Eye Damage/Irritation: Not classified

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified



SAFETY DATA SHEET

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

Teratogenicity: Not classified

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Overexposure may be irritating to the respiratory system.

Symptoms/Injuries After Skin Contact: Repeated or prolonged skin contact may cause irritation.

Symptoms/Injuries After Eye Contact: Direct contact with the eyes is likely irritating.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: Not Classified

11.2 INFORMATION ON TOXICOLOGICAL EFFECTS - INGREDIENT(S)

LD50 and LC50 Data

POLYBUTENE (ISOBUTYLENE/UTANE COPOLYMER) (9003-29-6)

LD50 Oral Rats	> 30 g/kg
LD50 Dermal Rabbits	> 10 g/kg

DEC-1-ENE, HOMOPOLYMER HYDROGENATED (68037-01-4)

LD50 Oral Rat	> 5 ml/kg
LD50 Inhalation Rat	1,17 mg/l (exposure time 4 hours)
LD50 Dermal Rabbit	>3 g/kg

PETROLEUM DISTILLATES, HYDROTREATED HEAVY NAPHTHENIC (64741-52-5)

LD50 Oral Rat	>5000 mg/kg
LD50 Dermal Rabbit	>5000 mg/kg
LD50 Inhalation Rat	>5 mg/l (exposure time 4 hours)



SAFETY DATA SHEET

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

SECTION 12: ECOLOGICAL INFORMATION

12.1 TOXICITY

Ecology - General: Toxic to aquatic life.

DEC-1-ENE, HOMOPOLYMER HYDROGENATED (68037-01-4)

LL50 Fish	>1000 mg/l (Exposure time 48 hours; Species Daphnia Magna)
EL50 Algae	>1000 mg/l (Exposure time 72 hours; Species Scenedesmus capricornutum)
NOEC Daphnia	125 mg/l (Exposure time 21 days; Species Daphnia Magna)

12.2 PERSISTENCE AND DEGRADABILITY

Not available

12.3 BIOACCUMULATIVE POTENTIAL

Not available

12.4 MOBILITY IN SOIL

Not available

12.5 OTHER ADVERSE EFFECTS

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Sewage Disposal Recommendations: Do not empty into drains; dispose of this material and its container in a safe way. Do not empty into drains. Do not dispose of waste into sewer.

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

SECTION 14: TRANSPORT INFORMATION

14.1 IN ACCORDANCE WITH DOT Not regulated for transport

14.2 IN ACCORDANCE WITH IMDG Not regulated for transport

14.3 IN ACCORDANCE WITH IATA Not regulated for transport

14.4 IN ACCORDANCE WITH TDG Not regulated for transport

SECTION 15: REGULATORY INFORMATION

15.1 US FEDERAL REGULATIONS

SARA Section 311/312 Hazard Classes	Not Classified
--	----------------

15.2 US STATE REGULATIONS

None noted



SAFETY DATA SHEET

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

15.3 CANADIAN REGULATIONS

WHMIS Classification: Not Classified

PHOSPHORODITHIOIC ACID, O,O-DI-C1-14-ALKYL ESTERS, ZINC SALTS (68649-42-3)

Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class D Division 2 Subdivision B – Toxic material causing other toxic effects

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date: 05/16/2017

Other Information: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS FULL TEXT PHRASES

H304	May be fatal if swallowed and enters airways
H402	Harmful to aquatic life
P273	Avoid release into the environment
H501	Dispose of contents/container in accordance with local, regional, national, and international

PARTY RESPONSIBLE FOR THE PREPARATION OF THIS DOCUMENT

Christensen Inc.

1060 Jadwin Ave. Richland, WA 99352

(509) 882-2115

www.ChristensenUSA.com

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.

North America GHS US 2012 & WHMIS 2