SAFETY DATA SHEET

Issue Date: 15 May 2022 Revision date: 15 May 2022 Version 1

1. - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name: **Bio-SynXtra HD Plus Motor Oil SAE: 5W20 (Low Ash)**

Other means of identification

Product code: **85321, 85323, 85324, 85326, 85327**
CAS NO: Mixture
Synonyms: None

Recommended use of the chemical and restrictions on use

Recommended Use: Biobased Engine Oil

Details of the supplier of the safety data sheet

Supplier and Manufacture

Renewable Lubricants, Inc.
476 Griggy RD NE, P.O. Box 474
Hartville, Oh 44632
Phone: (330) 877-9982
Fax: (330) 877-2266
www.renewablelube.com, www.renewablelubricants.com

Emergency telephone number

Emergency Telephone **(CHEMTREC) 1-800-424-9300. Outside the U.S. (703) 527-3887**

SECTION 2 – HAZARDS IDENTIFICATION

This material is not hazardous according to regulatory guidelines (see SDS Section 15).

Other hazard information:

HAZARD NOT OTHERWISE CLASSIFIED (HNOC): None as defined under 29 CFR 1900.1200.

PHYSICAL / CHEMICAL HAZARDS

No significant hazards.

HEALTH HAZARDS

This material has no known hazards when used as directed. Excessive exposure may result in eye, skin, or respiratory irritation.

ENVIRONMENTAL HAZARDS

No significant hazards.

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 3 - COMPOSITION/INFORMATION on INGREDIENTS

Reportable Hazardous Substance(s) or Complex Substance(s)

Name	**CAS#**	EC No.	**Percentage (by wt.)**
Zinc alkyldithiophosphate	84605-29-8	283-392-8	.5 to 1.7%

As per paragraph (i) of 29 CFR 1910.1200, formulation is considered a trade secret and specific chemical identity and exact percentage (concentration) of composition may have been withheld. Specific chemical identity and exact percentage composition will be provided to health professionals, employees, or designated representatives in accordance with applicable provisions of paragraph (i).

SECTION 4 - FIRST AID MEASURES

Eye contact: Flush eye with water for 15 minutes. If symptoms persist, call a physician.

Skin contact: Wash off immediately with soap and plenty of water. Remove and wash contaminated clothing before re-use. If skin irritation persists, call a physician.

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. If symptoms persist, call a physician.

Ingestion: Do not induce vomiting. If conscious, drink plenty of water. Obtain medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: No information available.

Indication of any immediate medical attention and special treatment needed

Notes to physician: Treat symptomatically

SECTION 5 - FIRE-FIGHTING MEASURES

Suitable extinguishing media: Use dry chemical, CO2, water spray or "alcohol" foam.
Unsuitable extinguishing media: Do not use a solid water stream as it may scatter and spread fire.

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Use water spray to cool fire exposed surfaces and to protect personnel.

Hazardous Combustion Products: Incomplete combustion products, Smoke, Fume, Oxides of carbon.

Specific hazards arising from the chemical: In the event of fire, cool tanks and protect personnel with water spray.
FLASH POINT (COC) 220°C (428°F)

Explosion data:

Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	This material is a static accumulator.

Special protective equipment for firefighters:
Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions: Use personal protective equipment.

Environmental precautions

Environmental precautions: Prevent product from entering drains. Do not contaminate surface water. Check on local, national and international regulatory information to determine any reporting requirements for spills.

Methods and material for containment and cleaning up

Methods for containment: Prevent further leakage or spillage if safe to do so, confine spill immediately with booms.

Methods for cleaning up: Absorb spill with inert material (e.g. dry sand or earth), or skimming surface with suitable absorbent, then transfer non-combustible material in approved containers.

SECTION 7 - HANDLING AND STORAGE

Precautions for safe handling

Handling: Handle in accordance with good industrial hygiene and safety practice. Keep containers closed when not in use. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Conditions: Keep containers tightly closed and store inside in a cool well-ventilated place free of contaminants. Empty containers may retain product properties. Follow all MSDS / SDS Label warnings after container is emptied. Do not store outside and use general maintenance practice.

Sensitivity to Static Discharge: This material is a static accumulator.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Components	ACGIH TLV	OSHA (TWA mg/m 3):	IDLH
Oil Mist	5 mg/m 3	5 mg/m 3	

Appropriate engineering controls

Engineering measures to reduce exposure: Use only in area provided with appropriate exhaust ventilation.

Individual protection measures, such as personal protective equipment

Respiratory protection:	No personal respiratory protective equipment normally required. In case of insufficient ventilation wear suitable respiratory equipment.
Hand protection:	Nitrile rubber Neoprene gloves
Eye protection:	Safety glasses
Skin and body protection:	Impervious clothing
General Hygiene Considerations:	Avoid contact with skin, eyes and clothing

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Typical information on basic physical and chemical properties

Specific Gravity (H_2O = 1):	.89 @ 15.6ºC
Flash Point (COC):	220ºC (428ºF)
Kinematic viscosity:	48.0cSt @ 40°C / 9.05 cSt @ 100°C
Pour Point:	-40°C (-43.6°F)
Explosive properties:	Material does not have explosive properties.
Oxidizing properties:	See Section 2, No significant hazards.
Volatile Organic Compound (VOC):	Components contain No VOC according to CARB
Physical state	Liquid
Appearance	Oil
Odor	Mild
Color	Light yellow liquid
Odor threshold	Not Determined
Melting: point/freezing point:	Not Determined
Boiling point /boiling range:	Not Determined
Flammability (solid, gas):	Not Determined
Flammability Limit in Air	Not Determined
Evaporation rate: (n-Butyl Acetate=1)	Approx. <1
Percent Volatile:	Not Determined
Boiling Point:	Not Determined
Vapor Density (Air = 1):	<1
Vapor pressure:	Not Determined
Solubility in Water:	Insoluble
Upper flammability limit:	Not Determined
Lower flammability limit:	Not Determined
Partition coefficient:	Not Determined
Autoignition temperature:	Not Determined
Decomposition temperature:	Not Determined

Other information

The above data are typical values and do not constitute a specification.

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Not applicable
Chemical stability	
Stability:	Stable under normal conditions
Possibility of Hazardous Reactions	
Possibility of Hazardous Reactions:	None under normal processing
Hazardous polymerization:	Hazardous polymerization does not occur
Conditions to avoid	
Conditions to avoid:	No special storage conditions required
Hazardous Decomposition Products	
Hazardous Decomposition Products:	None under normal processing
Incompatible materials	
Incompatible materials:	Oxidizing agents

SECTION 11 - TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	Product does not present an acute toxicity hazard based on known or supplied information
Eye contact	Contact with eyes may cause irritation. May cause mild, short-lasting discomfort to eyes based on assessment of the components.
Skin contact	Acute Toxicity: Minimally Toxic, based on assessment of the components. Substance does not generally irritate and is only mildly irritating to the skin with prolonged exposure.

Inhalation	Acute Toxicity: Minimally Toxic, based on assessment of the components. Irritation: Negligible hazard at ambient/normal handling temperatures.
Ingestion	Acute Toxicity: Minimally Toxic, based on assessment of the components and structurally similar materials.
Aspiration	Not expected to be an aspiration hazard, based on physical and chemical properties of the material.
Respiratory Sensitization	Not expected to be a respiratory sensitizer, based on assessment of the components and structurally similar materials.
Germ Cell Mutagenicity	Not expected to be a germ cell mutagen, based on assessment of the components and structurally similar materials.
Carcinogenicity	Not expected to cause cancer, based on assessment of the components and structurally similar materials. This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.
Reproductive Toxicity	Not expected to be a reproductive toxicant, based on assessment of the components.
Lactation	Not expected to cause harm to breast-fed children.
Specific Target Organ Toxicity (STOT)	Single Exposure: Not expected to cause organ damage from a single exposure. Repeated Exposure: Not expected to cause organ damage from prolonged or repeated exposure.

OTHER INFORMATION

Product Information: Product does not present an acute toxicity hazard based on known or supplied information. 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 and humans.

SECTION 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. Base oil components that make-up >90% of the product are >1000 ppm in ASTM D-6046 Environmental Impact Classification of Lubricant and Aquatic Tests.

MOBILITY Base oil component -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

Base oil components – >30% is readily biodegradable – 70% is inherently biodegradable
Product Tested inherently biodegradable >21% in 28 days ASTM D-5864

BIOACCUMULATION POTENTIAL Not Established

SECTION 13 - DISPOSAL INFORMATION

Waste treatment methods

Disposal of wastes: Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging: Do not reuse container**.**

SECTION 14 - TRANSPORTATION INFORMATION

UN number	**ADR/RID** Not regulated.
ICAO Not regulated.	**IMDG** Not regulated.
UN proper shipping name	**ADR/RID** Not regulated.
ICAO Not regulated.	**IMDG** Not regulated. Marine Pollutant: NO
Transport hazard class(es)	**ADR/RID** Not regulated.
ICAO Not regulated.	**IMDG** Not regulated.
Packing group	**ADR/RID** Not regulated.
AIR	**IATA** Not regulated.
LAND	**TDG** Not regulated.
LAND	**DOT** Not regulated.

SECTION 15 - REGULATORY INFORMATION

International Inventories

TSCA: **Listed in TSCA**

TSCA: **United States Toxic Substances Control Act Section 8(b) Inventory**

Global Chemical Inventories:

USA	All components of this material are on the US TSCA Inventory or are exempt.
EU	All components are in compliance with the EC Seventh amendment Directive 92 /32/EEC.
Japan	All components are in compliance with the Chemical Substances Control Law of Japan.
Australia	All components are in compliance with chemical notification requirements in Australia.
Canada	All components are in compliance with the Canadian Environmental Protection Act and are Canadian DSL/NDSL.
Switzerland	All components are in compliance with the Environmentally Hazardous Substances Ordinance in Switzerland.
China	All components of this product are listed on the Inventory of Existing Chemical Substances in China
Korea	All components are in compliance in Korea.
Philippines	All components are in compliance with the Philippines Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990 (R.A. 6969).
TSCA:	All ingredients in this product are listed or exempt from listing on the TSCA Chemical inventory.
CEPA:	All ingredients in this product are listed or exempt from listing on the Canadian DSL/NDSL.
Proposition 65:	This product contains no chemicals know to the State of California to cause cancer, birth defects of other reproductive harm.

Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

State Regulations (RTK)

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any known chemical substance on the SARA Extremely Hazardous Substances list.

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

SECTION 16 - OTHER INFORMATION

Read and follow all label directions and precautions before using the product.

NFPA:
Health: 0
Flammability: 1
Instability 0

HMIS health rating:
Health: 0
Flammability: 1
Physical hazards 0
Personal protection B

Guide to Abbreviations:
ACGIH = American Conference of Governmental Industrial Hygienists; CARB = California Air Resource Board, CASRN = Chemical Abstracts Service Registry Number; CEILING = Ceiling Limit (15 minutes); CERCLA = The Comprehensive Environmental Response, Compensation, and Liability Act; EPA = Environmental Protection Agency; GHS = Globally Harmonized System; IARC = International Agency for Research on Cancer; INSHT = National Institute for Health and Safety at Work; IOPC = International Oil Pollution Compensation; LEL = Lower Explosive Limit; NE = Not Established; NFPA = National Fire Protection Association; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; PEL = Permissible Exposure Limit (OSHA); SARA = Superfund Amendments and Reauthorization Act; STEL = Short Term Exposure Limit (15 minutes); TLV = Threshold Limit Value (ACGIH); TWA = Time Weighted Average (8 hours); UEL = Upper Explosive Limit; WHMIS = Worker Hazardous Materials Information System (Canada)

Revision:

Date	Revised Section
15 May 2022	new

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