SAFETY DATA SHEET

Synthetic Zero-Turn Hydrostatic Transmission Fluid, SAE 20W-50

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200 and WHMIS 2015, in compliance with the Hazardous Product Act (HPA, as amended) and the requirements of the Hazardous Product Regulations (HPR).

1. Identification

Product identifier

Product name Synthetic Zero-Turn Hydrostatic Transmission Fluid, SAE 20W-50

Product number AHF

Recommended use of the chemical and restrictions on use

Application Transmission fluid.

Uses advised against Avoid the formation of mists.

Details of the supplier of the safety data sheet

Supplier
AMSOIL INC.
14328-121A Ave
Edmonton, AB T5L 2T2
T: 877-830-4769

Manufacturer
AMSOIL INC.
One AMSOIL Center,
Superior, WI 54880, USA.
T: +1 715-392-7101
compliance@amsoil.com

Emergency telephone number

Emergency telephone
CHEMTREC: Within USA and Canada: 1-800-424-9300
Outside the USA and Canada: +1 703-741-5970
(collect calls accepted) 24/7

2. Hazard(s) identification

Classification of the substance or mixture

OSHA/WHMIS Regulatory Status This Product is Hazardous under the OSHA Hazard Communication Standard and according to the hazard criteria of the Hazardous Product Regulations.

Physical hazards Not Classified

Health hazards Eye Irrit. 2A - H319 Skin Sens. 1 - H317

Environmental hazards Aquatic Acute 3 - H402 Aquatic Chronic 3 - H412

Label elements

Hazard symbols

Signal word Warning

Synthetic Zero-Turn Hydrostatic Transmission Fluid, SAE 20W-50

Hazard statements
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements
P261 Avoid breathing vapor/ spray.
P264 Wash contaminated skin thoroughly after handling.
P272 Contaminated work clothing must not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves, eye and face protection.
P302+P352 If on skin: Wash with plenty of water.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
P337+P313 If eye irritation persists: Get medical advice/ attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P501 Dispose of contents/ container in accordance with national regulations.

Supplemental label information
AT(i) 2.07%% of the mixture consists of ingredient(s) of unknown acute inhalation toxicity.

Contains
Triphenyl phosphite

Other hazards

This product does not contain any substances classified as PBT or vPvB.

3. Composition/information on ingredients

Mixtures

Hydrogenated base oil **1-5%**
CAS number: 64742-54-7

Classification
Asp. Tox. 1 - H304

Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) **1-5%**
CAS number: 4259-15-8

Classification
Eye Dam. 1 - H318
Aquatic Chronic 2 - H411

C14-18 alpha-olefin epoxide, reaction products with boric acid **0.5 - <1%**
CAS number: 1471314-23-4

Classification
Skin Sens. 1B - H317

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Triphenyl phosphite	**0.1-1.0%**
CAS number: 101-02-0	
M factor (Acute) = 1	M factor (Chronic) = 1

Classification
Acute Tox. 4 - H302
Skin Irrit. 2 - H315
Eye Irrit. 2A - H319
Skin Sens. 1 - H317
Aquatic Acute 1 - H400
Aquatic Chronic 1 - H410

The full text for all hazard statements is displayed in Section 16.

Composition comments The exact percentage is withheld as a trade secret in accordance with 29 CFR 1910.1200.

4. First-aid measures

Description of first aid measures

General information Get medical attention immediately. Show this Safety Data Sheet to the medical personnel.

Inhalation Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place.

Ingestion Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Place unconscious person on their side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.

Skin Contact It is important to remove the substance from the skin immediately. In the event of any sensitization symptoms developing, ensure further exposure is avoided. Remove contamination with soap and water or recognized skin cleansing agent. Get medical attention if symptoms are severe or persist after washing.

Eye contact Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 20 minutes.

Protection of first aiders First aid personnel should wear appropriate protective equipment during any rescue. If it is suspected that volatile contaminants are still present around the affected person, first aid personnel should wear an appropriate respirator or self-contained breathing apparatus. Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation.

Most important symptoms and effects, both acute and delayed

General information See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation Prolonged inhalation of high concentrations may damage respiratory system.

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Ingestion	Gastrointestinal symptoms, including upset stomach. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation.
Skin contact	Prolonged contact may cause dryness of the skin.
Eye contact	Irritating to eyes.

Indication of immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically. May cause sensitization or allergic reactions in sensitive individuals.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Specific hazards	Containers can burst or explode when heated, due to excessive pressure build-up. Contains Hydrocarbons. The product is immiscible with water and will spread on the water surface.
Hazardous combustion products	Hydrocarbons. Carbon monoxide (CO). Carbon dioxide (CO_2).

Advice for firefighters

Protective actions during firefighting	Avoid breathing fire gases or vapors. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapors and protect men stopping the leak. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Standard Firefighter's clothing including helmets, protective boots and gloves, that provides a basic level of protection during chemical incidents is defined by the Canada Occupational Health and Safety Regulations, by provincial guidelines on occupational health and safety or by NFPA standards if applicable.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage. Ensure procedures and training for emergency decontamination and disposal are in place. Do not touch or walk into spilled material. Avoid contact with skin and eyes. Use protective equipment appropriate for surrounding materials.

Environmental precautions

Environmental precautions	Avoid discharge to the aquatic environment. Immiscible with water. Absorb spillage with non-combustible, absorbent material. Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

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Methods for cleaning up

Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Small Spillages: Absorb spillage with sand or other inert absorbent. Collect and place in suitable waste disposal containers and seal securely. Large Spillages: If leakage cannot be stopped, evacuate area. Flush spilled material into an effluent treatment plant, or proceed as follows. Contain and absorb spillage with sand, earth or other non-combustible material. Place waste in labeled, sealed containers. Clean contaminated objects and areas thoroughly, observing environmental regulations. The contaminated absorbent may pose the same hazard as the spilled material. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Reference to other sections

For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

7. Handling and storage

Precautions for safe handling

Usage precautions

Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimize spills. The product contains a sensitizing substance. Persons susceptible to allergic reactions should not handle this product. Keep container tightly sealed when not in use. Avoid the formation of mists. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers. Avoid contact with used product.

Advice on general occupational hygiene

Wash promptly if skin becomes contaminated. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.

Conditions for safe storage, including any incompatibilities

Storage precautions

Store away from incompatible materials (see Section 10). Store in accordance with local regulations. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Utilize retaining walls to prevent soil and water pollution in the event of spillage. The storage area floor should be leak-tight, jointless and not absorbent.

Storage class

Chemical storage.

Specific end uses(s)

Specific end use(s)

The identified uses for this product are detailed in Section 1.

8. Exposure controls/Personal protection

Control parameters

Occupational exposure limits

Comments

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

Under conditions which may generate mists, the following exposure limits are recommended:
Long-term exposure limit (8-hour TWA): 5 mg/m³
Short-term exposure limit (15-minute): 10 mg/m³

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Exposure controls

Appropriate engineering controls

Provide adequate ventilation. Personal, workplace environment or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimize worker exposure. Personal protective equipment should only be used if worker exposure cannot be controlled adequately by the engineering control measures. Ensure control measures are regularly inspected and maintained. Ensure operatives are trained to minimize exposure.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with OSHA 1910.133 and/or the Canadian regulation on health and safety at work, SOR/86-304, Part XII (12.6), and any relevant provincial regulation relating to health and safety at work. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with OSHA 1910.138 and/or the Canadian regulation on health and safety at work, SOR/86-304, Part XII (12.9), and be demonstrated to be impervious to the chemical and resist degradation. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.

Other skin and body protection

Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

Hygiene measures

Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Preventive industrial medical examinations should be carried out. Warn cleaning personnel of any hazardous properties of the product.

Respiratory protection

Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is NIOSH approved. Check that the respirator fits tightly and the filter is changed regularly. Full face mask respirators with replaceable filter cartridges should comply with OSHA 1910.134 and/or the Canadian regulation on health and safety at work, SOR/86-304, Part XII (12.7), and any relevant provincial regulation relating to health and safety at work. Gas and combination filter cartridges should comply with OSHA 1910.134 and/or the Canadian regulation on health and safety at work, SOR/86-304, Part XII (12.7), and any relevant provincial regulation relating to health and safety at work. Half mask and quarter mask respirators with replaceable filter cartridges should comply with OSHA 1910.134 and/or the Canadian regulation on health and safety at work, SOR/86-304, Part XII (12.7), and any relevant provincial regulation relating to health and safety at work.

Environmental exposure controls

Keep container tightly sealed when not in use.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance Liquid.

Color Amber.

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Odor	Mild hydrocarbon.
Odor threshold	Not available.
pH	Not available.
Melting point	Not available.
Initial boiling point and range	Not available.
Flash point	260°C Cleveland open cup. [ASTM D 92]
Evaporation rate	Not available.
Upper/lower flammability or explosive limits	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	0.8718
Solubility(ies)	Not known.
Partition coefficient	Not available.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	176.1 cSt @ 40°C 19.4 cSt @ 100°C [ASTM D 445]
Explosive properties	Not considered to be explosive.
Oxidizing properties	Does not meet the criteria for classification as oxidizing.
Fire point	276°C Cleveland open cup. [ASTM D 92]
Pour point	-36°C [ASTM D 97]

10. Stability and reactivity

Reactivity	See the other subsections of this section for further details.
Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
Possibility of hazardous reactions	No potentially hazardous reactions known.
Conditions to avoid	There are no known conditions that are likely to result in a hazardous situation.
Materials to avoid	Oxidizing agents. Acids - oxidizing.
Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.

11. Toxicological information

Information on toxicological effects

Acute toxicity - oral

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Summary	Based on available data the classification criteria are not met.
Notes (oral LD_{50})	Based on available data the classification criteria are not met.

Acute toxicity - dermal

Summary	Based on available data the classification criteria are not met.
Notes (dermal LD_{50})	Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Summary	Based on available data the classification criteria are not met.
Notes (inhalation LC_{50})	Based on available data the classification criteria are not met.

Skin corrosion/irritation

Summary	Based on available data the classification criteria are not met.
Animal data	Based on available data the classification criteria are not met.

Serious eye damage/irritation

Summary	Causes serious eye irritation.
Serious eye damage/irritation	Based on available data the classification criteria are not met.

Respiratory sensitization

Summary	Based on available data the classification criteria are not met.
Respiratory sensitization	Based on available data the classification criteria are not met.

Skin sensitization

Summary	Based on available data the classification criteria are not met.
Skin sensitization	May cause skin sensitization or allergic reactions in sensitive individuals.

Germ cell mutagenicity

Summary	Based on available data the classification criteria are not met.
Genotoxicity - in vitro	Based on available data the classification criteria are not met.

Carcinogenicity

Summary	Based on available data the classification criteria are not met.
Carcinogenicity	Based on available data the classification criteria are not met.
IARC carcinogenicity	Contains a substance/a group of substances which may cause cancer. IARC Group 1 Carcinogenic to humans.

Reproductive toxicity

Summary	Based on available data the classification criteria are not met.
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.
Reproductive toxicity - development	Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

Summary	Based on available data the classification criteria are not met.
STOT - single exposure	Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure

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

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STOT - repeated exposure	Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Summary	Based on available data the classification criteria are not met.
Aspiration hazard	Based on available data the classification criteria are not met.

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	Prolonged inhalation of high concentrations may damage respiratory system.
Ingestion	Gastrointestinal symptoms, including upset stomach. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation.
Skin Contact	Prolonged contact may cause dryness of the skin.
Eye contact	Irritating to eyes.
Route of exposure	Ingestion Inhalation Skin and/or eye contact
Target Organs	No specific target organs known.
Medical considerations	Skin disorders and allergies.

Toxicological information on ingredients.

Hydrogenated base oil

Acute toxicity - oral

Notes (oral LD_{50})	LD_{50} >5000 mg/kg, Oral, Rat REACH dossier information.

Acute toxicity - dermal

Notes (dermal LD_{50})	LD_{50} >5000 mg/kg, Dermal, Rabbit REACH dossier information.

Acute toxicity - inhalation

Notes (inhalation LC_{50})	LC_{50} >5.53 mg/l, Inhalation, Rat REACH dossier information.

Skin corrosion/irritation

Animal data	Dose: 0.5ml, 24 hours, Rabbit Erythema/eschar score: No erythema (0). Edema score: No oedema (0). REACH dossier information.

Serious eye damage/irritation

Serious eye damage/irritation	Dose: 0.1ml, 72 hours, Rabbit REACH dossier information.

Skin sensitization

Skin sensitization	Buehler test - Guinea pig: Not sensitizing. REACH dossier information.

Germ cell mutagenicity

Genotoxicity - in vitro	Gene mutation: Negative. REACH dossier information.
Genotoxicity - in vivo	Chromosome aberration: Negative. REACH dossier information.

Reproductive toxicity

Reproductive toxicity - fertility	Screening - NOAEL > 1000 mg/kg/day, Oral, Rat P REACH dossier information.

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Reproductive toxicity - development	Developmental toxicity: - LOAEL: 125 mg/kg/day, Dermal, Rat REACH dossier information.

Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)

Acute toxicity - oral	
Notes (oral LD_{50})	LD_{50} 3100 mg/kg, Oral, Rat
Acute toxicity - dermal	
Notes (dermal LD_{50})	LD_{50} >5000 mg/kg, Dermal, Rabbit
Skin corrosion/irritation	
Skin corrosion/irritation	Not irritating.
Animal data	Dose: 0.5 ml, 4 hours, Rabbit Edema score: No oedema (0). Erythema/eschar score: Very slight erythema - barely perceptible (1). REACH dossier information.
Serious eye damage/irritation	
Summary	Causes serious eye damage.
Serious eye damage/irritation	Dose: 0.1ml, , Rabbit Cornea score: 1.17 Iris score: 0.6 Conjunctivae score: 2.17 Chemosis score: 2.67

C14-18 alpha-olefin epoxide, reaction products with boric acid

Acute toxicity - oral	
Notes (oral LD_{50})	LD_{50} > 16000 mg/kg, Oral, Rat
Acute toxicity - dermal	
Notes (dermal LD_{50})	LD_{50} > 2000 mg/kg, Dermal, Rat
Skin sensitization	
Skin sensitization	Buehler test - Guinea pig: Sensitizing.

Triphenyl phosphite

Acute toxicity - oral	
Acute toxicity oral (LD_{50} mg/kg)	1,590.0
Species	Rat
ATE oral (mg/kg)	1,590.0
Acute toxicity - dermal	
Notes (dermal LD_{50})	LD_{50} >2000 mg/kg, Dermal, Rabbit REACH dossier information. Based on available data the classification criteria are not met.
Acute toxicity - inhalation	
Notes (inhalation LC_{50})	LD_{50} >6.7 mg/l, Inhalation, Rat REACH dossier information. Based on available data the classification criteria are not met.
Skin corrosion/irritation	
Animal data	Irritating.
Serious eye damage/irritation	

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Serious eye damage/irritation	Causes serious eye irritation.

Germ cell mutagenicity

Genotoxicity - in vitro	DNA damage and/or repair: Negative. REACH dossier information. Based on available data the classification criteria are not met.
Genotoxicity - in vivo	Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity - fertility	Two-generation study - NOAEL >40 mg/kg/day, Oral, Rat P REACH dossier information. Based on available data the classification criteria are not met.

12. Ecological information

Toxicity Harmful to aquatic life with long lasting effects.

Ecological information on ingredients.

Hydrogenated base oil

Acute aquatic toxicity

Acute toxicity - fish	LL_{50}, 96 hours: > 100 mg/l, Pimephales promelas (Fat-head Minnow)
Acute toxicity - aquatic invertebrates	EL_{50}, 48 hours: > 10000 mg/l, Daphnia magna
Acute toxicity - aquatic plants	NOEL, 72 hours: > 100 mg/l, Pseudokirchneriella subcapitata

Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)

Acute aquatic toxicity

Acute toxicity - fish	LL_{50}, 96 hours: 4.4 mg/l, Oncorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EL_{50}, 48 hours: 75 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EL_{50}, 72 hours: 410 mg/l, Desmodesmus subspicatus

C14-18 alpha-olefin epoxide, reaction products with boric acid

Acute aquatic toxicity

Acute toxicity - fish	LL_{50}, 96 hours: >100 mg/l, Oncorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EL_{50}, 48 hours: > 100 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EL_{50}, 72 hours: >100 mg/l, Pseudokirchneriella subcapitata

Triphenyl phosphite

Toxicity	Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410 Very toxic to aquatic life with long lasting effects.

Acute aquatic toxicity

Synthetic Zero-Turn Hydrostatic Transmission Fluid, SAE 20W-50

$LE(C)_{50}$	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1

Chronic aquatic toxicity

M factor (Chronic)	1

Persistence and degradability

Persistence and degradability The degradability of the product is not known.

Ecological information on ingredients.

Hydrogenated base oil

Biodegradation	Water - Degradation 31: 28 days Inherently biodegradable.

Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)

Biodegradation	Water - Degradation <5: 27 days No biodegradation observed under test conditions.

C14-18 alpha-olefin epoxide, reaction products with boric acid

Biodegradation	Water - Degradation 26.7: 28 days Not readily biodegradable.

Triphenyl phosphite

Persistence and degradability	The product is not biodegradable.
Phototransformation	Water - DT_{50} : 0.99 days Estimated value.
Stability (hydrolysis)	pH7 - Half-life : 0.5 hours @ 22°C pH9 - Half-life : <14 hours @ 22°C
Biodegradation	Water - Degradation 0.14%: 28 days

Bioaccumulative potential

Bio-Accumulative Potential No data available on bioaccumulation.

Partition coefficient Not available.

Ecological information on ingredients.

Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)

Partition coefficient	log Pow: 3.59

C14-18 alpha-olefin epoxide, reaction products with boric acid

Partition coefficient	log Pow: 9.4

Triphenyl phosphite

Partition coefficient	log Pow: 6.62 Estimated value.

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Mobility in soil

Mobility The product is insoluble in water.

Ecological information on ingredients.

Triphenyl phosphite

Mobility The product is insoluble in water.

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information The generation of waste should be minimized or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

Disposal methods Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labeled with their contents. Incineration or landfill should only be considered when recycling is not feasible.

14. Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT, TDG).

UN Number

UN No. (International) Not applicable.

UN proper shipping name

Proper shipping name (International) Not applicable.

Transport hazard class(es)

Transport labels
No transport warning sign required.

Packing group

Packing group (International) Not applicable.

Environmental hazards

Environmentally Hazardous Substance
No.

Special precautions for user

Not applicable.

DOT TIH Zone Not applicable.

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Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

Regulatory References OSHA Hazard Communication Standard 29 CFR §1910.1200 Hazardous Products Regulation (SOR/2015-17) Transportation of Dangerous Goods Regulations -SOR/2015-100.

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities
None of the ingredients are listed or exempt.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)
The following ingredients are listed or exempt:

Naphthalene
Final CERCLA RQ: 100(45.4) pounds (Kilograms)

Benzene
Final CERCLA RQ: 10(4.54) pounds (Kilograms)

Xylene
Final CERCLA RQ: 100(45.4) pounds (Kilograms)

Ethylbenzene
Final CERCLA RQ: 1000(454) pounds (Kilograms)

Maleic anhydride
Final CERCLA RQ: 5000(2270) pounds (Kilograms)

Toluene
Final CERCLA RQ: 1000(454) pounds (Kilograms)

SARA Extremely Hazardous Substances EPCRA Reportable Quantities
None of the ingredients are listed or exempt.

SARA 313 Emission Reporting
The following ingredients are listed or exempt:

Naphthalene
0.1 %

Benzene
0.1 %

Xylene
1.0 %

Ethylbenzene
0.1 %

Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)
1.0 %

Maleic anhydride
1.0 %

Toluene
1.0 %

CAA Accidental Release Prevention
None of the ingredients are listed or exempt.

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SARA (311/312) Hazard Categories

Respiratory or skin sensitization
Serious eye damage or eye irritation

OSHA Highly Hazardous Chemicals

None of the ingredients are listed or exempt.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

The following ingredients are listed or exempt:

Naphthalene
Carcinogen.

Ethylbenzene
Carcinogen.

Benzene.
Carcinogen, developmental toxin and reproductive toxin.

Toluene
Developmental toxin.

California Air Toxics "Hot Spots" (A-I)

The following ingredients are listed or exempt:

Naphthalene

Benzene

Xylene

Ethylbenzene

Triphenyl phosphite

Maleic anhydride

Toluene

California Air Toxics "Hot Spots" (A-II)

None of the ingredients are listed or exempt.

California Directors List of Hazardous Substances

The following ingredients are listed or exempt:

Naphthalene

Benzene

Xylene

2,6-Di-tert-butyl-p-cresol

Ethylbenzene

Maleic anhydride

Toluene

Massachusetts "Right To Know" List

The following ingredients are listed or exempt:

Naphthalene

Benzene

Synthetic Zero-Turn Hydrostatic Transmission Fluid, SAE 20W-50

Xylene

2,6-Di-tert-butyl-p-cresol

Ethylbenzene

Maleic anhydride

Toluene

Rhode Island "Right To Know" List

The following ingredients are listed or exempt:

Naphthalene

Benzene

Xylene

2,6-Di-tert-butyl-p-cresol

Ethylbenzene

Maleic anhydride

Toluene

Minnesota "Right To Know" List

The following ingredients are listed or exempt:

Naphthalene

Benzene

Xylene

2,6-Di-tert-butyl-p-cresol

Ethylbenzene

Maleic anhydride

Toluene

New Jersey "Right To Know" List

The following ingredients are listed or exempt:

Naphthalene

Benzene

Xylene

2,6-Di-tert-butyl-p-cresol

Ethylbenzene

Maleic anhydride

Toluene

Pennsylvania "Right To Know" List

The following ingredients are listed or exempt:

Naphthalene

Benzene

Xylene

2,6-Di-tert-butyl-p-cresol

Ethylbenzene

Maleic anhydride

Synthetic Zero-Turn Hydrostatic Transmission Fluid, SAE 20W-50

Toluene

Inventories

Canada - DSL/NDSL
All the ingredients are listed or exempt.

US - TSCA
All the ingredients are listed or exempt.

16. Other information

Abbreviations and acronyms used in the safety data sheet	C.A.S. = Chemical Abstracts Service; E.C. No = European Commission number; GHS = Globally Harmonised System; OSHA = Occupational Safety and Health Administration; WHMIS = Workplace Hazardous Materials Information System; DOT = Department of Transport; TDG = Transport of Dangerous Goods Regulations; IMDG = International Maritime Dangerous Goods; IATA = International Air Transport Association; SARA = Superfund Amendments and Reauthorization Act; CERCLA = Comprehensive Environmental; EPCRA = Emergency Planning and Community Right-to-Know Act; TSCA = Toxic Substances Control Act; LD/LC/EC = Lethal Dose,Lethal Concentration/Effect Concentration for 50% of population; NOEC = No Overall Effect Concentration; NOEL = No Overall Effect Level; REACH = Registration, Evaluation, Authorisation & Restriction of Chemicals; STOT-RE = Single Target Organ Toxicity - Repeat Exposure; STOT-SE= Specific Target Organ Toxicity - Single Exposure; PBT = Persistent, Bioaccumulative, Toxic; vPvB = Very Persistent, Very Bioaccumulative.
Classification abbreviations and acronyms	Aquatic Chronic = Hazardous to the aquatic environment (chronic) Eye Irrit. = Eye irritation Skin Sens. = Skin sensitisation
Key literature references and sources for data	Source: European Chemicals Agency, http://echa.europa.eu/
Training advice	Read and follow manufacturer's recommendations. Only trained personnel should use this material.
Revision comments	This is the first issue.
Revision date	8/2/2019
Revision	0
SDS No.	8792
Hazard statements in full	H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. H400 Very toxic to aquatic life. H402 Harmful to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects.