SAFETY DATA SHEET

US OSHA Hazard Communication Standard (29 CFR 1910.1200) and Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR)

Issuing Date 07-Oct-2022 **Revision Date** 07-Oct-2022 **Revision Number** 1

1. Identification

Product identifier

Product Name AMSOIL Z-Rod® SAE 10W-30 100% Synthetic Motor Oil, AMSOIL Z-Rod® SAE 20W-50 100% Synthetic Motor Oil, AMSOIL Z-Rod® SAE 10W-40 100% Synthetic Motor Oil

Other means of identification

Product Code(s) ZRT, ZRF, ZRD

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use Engine oil

Restrictions on use Avoid formation of mists

Details of the supplier of the safety data sheet

Initial supplier identifier
AMSOIL INC.
Bay Adelaide Centre, East Tower
22 Adelaide St. W
Toronto, ON, Canada M5H 4E3
T:+1 877-822-5172

Manufacturer Address
AMSOIL INC.
One AMSOIL Center
Superior, WI 54880, USA
T: +1 715-392-7101

E-mail 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

This product is not considered hazardous by either the US 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200) or the Canadian Workplace Hazardous Material Information System (WHMIS 2015)

Label elements

Hazard statements
Not classified.

Other information
May be harmful in contact with skin.

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

Chemical name	CAS No	Weight-%	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts	68457-79-4	0.1-1	-	-

*The exact percentage (concentration) of composition has been withheld as a trade secret.

Chemical Additions
The classification as a carcinogen does not apply as it can be shown that the substance(s) contain(s) less than 3% DMSO extract as measured by IP 346.

4. First-aid measures

Description of first aid measures

General advice Get medical attention immediately if symptoms occur. Show this safety data sheet to the doctor in attendance.

Inhalation Remove person to fresh air and keep comfortable for breathing.

Eye contact Rinse thoroughly with plenty of water, also under the eyelids. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Skin contact Wash skin with soap and water. Take off contaminated clothing. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

Self-protection of the first aider Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Symptoms May cause temporary eye irritation. May cause gastrointestinal discomfort if consumed in large amounts. Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization in susceptible persons. Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness and difficulty breathing.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media — Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media — Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical — Containers can burst or explode when heated, due to excessive pressure build-up. Thermal decomposition can lead to release of irritating gases and vapors.

Hazardous combustion products — Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

Explosion data
Sensitivity to mechanical impact None.
Sensitivity to static discharge None.

Special protective equipment and precautions for fire-fighters — Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions — Use personal protective equipment as required. See section 8 for more information. Ensure adequate ventilation.

For emergency responders — Use personal protection recommended in Section 8.

Methods and material for containment and cleaning up

Methods for containment — Prevent further leakage or spillage if safe to do so.

Methods for cleaning up — Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13). Clean contaminated surface thoroughly. After cleaning, flush away traces with water. Prevent product from entering drains.

Reference to other sections — For additional information see: Section 8: Exposure controls/personal protection; Section 12: Ecological information; Section 13: Disposal considerations.

7. Handling and storage

Precautions for safe handling

Advice on safe handling — Handle in accordance with good industrial hygiene and safety practice. Avoid contact with used product. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Conditions — Keep container tightly closed in a dry and well-ventilated place. Do not reuse empty containers. Store away from incompatible materials. See section 10 for more information. Protect from physical damage.

8. Exposure controls/personal protection

Control parameters

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.

Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering controls Apply technical measures to comply with the occupational exposure limits. Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/face protection If there is a risk of contact:. Wear safety glasses with side shields (or goggles).

Hand protection If there is a risk of contact: Wear suitable gloves. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves.

Skin and body protection If there is a risk of contact: Wear suitable protective clothing.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Environmental exposure controls Avoid release to the environment. Local authorities should be advised if significant spillages cannot be contained.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	
Physical state	Liquid
Color	Amber
Odor	Mild hydrocarbon
Odor threshold	No information available

Property	**Values**	**Remarks • Method**
pH		No data available
Melting point / freezing point		No data available
Initial boiling point and boiling range		No data available
Flash point	242 °C / 467.6 °F	Cleveland Open Cup ASTM D 92
Evaporation rate		No data available
Flammability		No data available
Flammability Limit in Air		
Upper flammability or explosive limits		No data available
Lower flammability or explosive limits		No data available
Vapor pressure		No data available
Vapor density		No data available
Relative density	0.8623	No data available
Water solubility		No data available
Solubility(ies)		No data available

Partition coefficient		No data available
Autoignition temperature		No data available
Decomposition temperature		No data available
Kinematic viscosity	97.5 cSt at 40 ºC 14.9 cSt at 100 ºC	ASTM D445
Dynamic viscosity		No data available

Other information

Explosive properties	No information available.
Oxidizing properties	No information available.
Softening point	No information available
Pour Point	-39ºC [ASTM D 97]
Fire Point	260ºC (COC) [ASTM D 92]
Molecular weight	No information available
VOC content	No information available
Liquid Density	No information available
Bulk density	No information available

10. Stability and reactivity

Reactivity None under normal use conditions.

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

Conditions to avoid None known based on information supplied.

Incompatible materials None known based on information supplied.

Hazardous decomposition products Thermal decomposition can lead to release of irritating gases and vapors. Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

11. Toxicological information

Information on likely routes of exposure

Inhalation Specific test data for the substance or mixture is not available.

Eye contact Specific test data for the substance or mixture is not available.

Skin contact May be harmful in contact with skin.

Ingestion Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms May cause temporary eye irritation. May cause gastrointestinal discomfort if consumed in large amounts. Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization in susceptible persons. Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness and difficulty breathing.

Acute toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document:

ATEmix (dermal) 2,742.10 mg/kg

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts	= 3600 mg/kg (Rat)	> 20000 mg/kg (Rabbit)	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation No information available.

Component Information	
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts (68457-79-4)	
Method	OECD Test No. 405: Acute Eye Irritation/Corrosion
Species	Rabbit
Exposure route	Eye
Effective dose	0.1 mL
Results	Eye Damage

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity The supplier declares that it can be shown that the substance(s) contain less than 3% DMSO extract as measured by IP 346.

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard Due to the viscosity, this product does not present an aspiration hazard.

12. Ecological information

Ecotoxicity Not considered to be harmful to aquatic life. Large or frequent spills may have hazardous effects on the environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts 68457-79-4	EC50: 1.0 - 5.0mg/L (96h, Pseudokirchneriella subcapitata)	LC50: >100mg/L (96h, Pimephales promelas) LC50: 25 - 50mg/L (96h, Pimephales promelas)	-	EC50: 4.0 - 6.0mg/L (48h, Daphnia magna)

Persistence and degradability No information available.

Bioaccumulation

Component Information

Chemical name	Partition coefficient
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts 68457-79-4	0.69

Mobility in soil	No information available.
Other adverse effects	No information available.

13. Disposal considerations

Waste treatment methods

Waste from residues/unused products	Dispose of in accordance with local regulations, Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.
California waste information	This product contains one or more substances that are listed with the State of California as a hazardous waste.

14. Transport information

DOT	Not regulated
TDG	Not regulated
IATA	Not regulated
IMDG	Not regulated

15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories
Contact supplier for inventory compliance status
*Contact supplier for details. One or more substances in this product are either not listed on the US TSCA inventory, listed on the confidential US TSCA inventory or are otherwise exempted from inventory listing requirements

US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts - 68457-79-4	1.0

SARA 311/312 Hazard Categories
Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)
This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts 68457-79-4	-	X	-	-

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.

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts 68649-42-3	X	-	X
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts 68457-79-4	X	-	X
Hydrogenated base oil 64742-70-7	-	X	-
Hydrogenated base oil 64742-56-9	-	X	-

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Key literature references and sources for data used to compile the SDS
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

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Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet