



# 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 12-Dec-2018

Revision Date 29-Jul-2021

Revision Number 2

## 1. Identification

### Product identifier

**Product Name** Signature Series Max-Duty Synthetic SAE 5W-40 Diesel Oil

### Other means of identification

**Product Code(s)** DEO

**Synonyms** None

### Recommended use of the chemical and restrictions on use

**Recommended use** Diesel oil

**Restrictions on use** Avoid formation of mists.

### Details of the supplier of the safety data sheet

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

**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

Causes mild skin irritation. Harmful to aquatic life with long lasting effects. Harmful to aquatic life.

### 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(1,3-dimethylbutyl and iso-Pr) esters, zinc salts	84605-29-8	0.1-1	-	-
Phenol, dodecyl-, branched	121158-58-5	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.

#### Most important symptoms and effects, both acute and delayed

**Symptoms** Prolonged contact may cause redness and irritation. May cause temporary eye irritation. Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness and difficulty breathing. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

#### 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 (CO<sub>2</sub>), dry chemical, alcohol-resistant foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

<b>Unsuitable extinguishing media</b>	Do not use a solid water stream as it may scatter and spread fire.
<b>Specific hazards arising from the chemical</b>	Containers can burst or explode when heated, due to excessive pressure build-up. Thermal decomposition can lead to release of irritating gases and vapors.
<b>Hazardous combustion products</b>	Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	None.
<b>Sensitivity to static discharge</b>	None.
<b>Special protective equipment and precautions for fire-fighters</b>	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

<b>Personal precautions</b>	Use personal protective equipment as required. See section 8 for more information. Ensure adequate ventilation.
<b>For emergency responders</b>	Use personal protection recommended in Section 8.

### Methods and material for containment and cleaning up

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	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.
<b>Reference to other sections</b>	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

<b>Advice on safe handling</b>	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.
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### Conditions for safe storage, including any incompatibilities

<b>Storage Conditions</b>	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.
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## 8. Exposure controls/personal protection

### Control parameters

<b>Exposure Limits</b>	Under conditions which may generate mists, the following exposure limits are recommended: Long-term exposure limit (8-hour TWA): 5 mg/m <sup>3</sup> . Short-term exposure limit (15-minute): 10 mg/m <sup>3</sup> .
<b>Biological occupational exposure limits</b>	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** 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.

**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	Brown
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	218 °C / 424.4 °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	0.8540	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	94.5 cSt at 40 °C 15.4 cSt at 100 °C	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	-43 °C [ASTM D 97]

<b>Fire Point</b>	230°C (COC) [ASTM D 92]
<b>Molecular weight</b>	No information available
<b>VOC Content (%)</b>	No information available
<b>Liquid Density</b>	No information available
<b>Bulk density</b>	No information available

## 10. Stability and reactivity

<b>Reactivity</b>	None under normal use conditions.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	None under normal processing.
<b>Conditions to avoid</b>	None known based on information supplied.
<b>Incompatible materials</b>	None known based on information supplied.
<b>Hazardous decomposition products</b>	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

<b>Inhalation</b>	Specific test data for the substance or mixture is not available.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available. Causes mild skin irritation.
<b>Ingestion</b>	Specific test data for the substance or mixture is not available.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Symptoms</b>	Prolonged contact may cause redness and irritation. May cause temporary eye irritation. Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness and difficulty breathing. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
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### Acute toxicity

#### **Numerical measures of toxicity**

No information available

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

<b>ATEmix (oral)</b>	50,000.00 mg/kg
<b>ATEmix (dermal)</b>	20,000.00 mg/kg

#### **Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts	= 3100 mg/kg ( Rat ) = 3200 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	> 2.3 mg/L ( Rat ) 4 h
Phenol, dodecyl-, branched	-	= 15000 mg/kg ( Rabbit )	-

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

<b>Skin corrosion/irritation</b>	Classification based on data available for ingredients. May cause skin irritation.
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#### **Component Information**

Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts (84605-29-8)

Method	OECD Test No. 404: Acute Dermal Irritation/Corrosion
Species	Rabbit
Exposure route	Dermal
Effective dose	0.5 mL
Exposure time	4 hours
Results	Irritant

**Serious eye damage/eye irritation** No information available.

<b>Component Information</b>	
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts (84605-29-8)	
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.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

#### Legend

##### ACGIH (American Conference of Governmental Industrial Hygienists)

A2 - Suspected Human Carcinogen

##### IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

##### NTP (National Toxicology Program)

Known - Known Carcinogen

##### OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

**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** Harmful to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts 84605-29-8	-	LC50: =4.5mg/L (96h, Oncorhynchus mykiss)	-	EC50: =23mg/L (48h, Daphnia magna)

**Persistence and degradability** No information available.

#### Bioaccumulation

#### Component Information

Chemical name	Partition coefficient
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Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts 84605-29-8	0.56
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**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

Chemical name	CAS No	US TSCA Inventory listing	US TSCA inactive/active designation
Hydrogenated base oil non hazardous ingredient	72623-87-1	Present	Active
Hydrogenated base oil	72623-87-1	Present	Active
Hydrogenated base oil	64742-54-7	Present	Active
Hydrogenated base oil	64742-54-7	Present	Active
Hydrogenated base oil	64742-65-0	Present	Active
Zinc alkyldithiophosphate	CONFIDENTIAL		
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts	84605-29-8	Present	Active
Phenol, dodecyl-, branched	121158-58-5		
2,6-Di-tert-butyl-p-cresol	128-37-0	Present	Active
Hydrogenated base oil(s)	-		

2-methylpropan-1-ol	78-83-1	Present	Active
Unknown acute tox. - inhalation	-		
Nonane	111-84-2	Present	Active
Ethylene oxide	75-21-8	Present	Active
Naphthalene	91-20-3	Present	Active
Ethylbenzene	100-41-4	Present	Active
Toluene	108-88-3	Present	Active
Benzene	71-43-2	Present	Active

\*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(1,3-dimethylbutyl and iso-Pr) esters, zinc salts - 84605-29-8	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(1,3-dimethylbutyl and iso-Pr) esters, zinc salts 84605-29-8	-	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 contains the following Proposition 65 chemicals:.

Chemical name	California Proposition 65
Ethylene oxide - 75-21-8	Carcinogen Developmental Female Reproductive Male Reproductive
Naphthalene - 91-20-3	Carcinogen
Benzene - 71-43-2	Carcinogen Developmental Male Reproductive

Ethylbenzene - 100-41-4	Carcinogen
Toluene - 108-88-3	Developmental

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts 84605-29-8	X	-	X
2,6-Di-tert-butyl-p-cresol 128-37-0	X	X	X
2-methylpropan-1-ol 78-83-1	X	X	X
Nonane 111-84-2	X	X	X
Ethylene oxide 75-21-8	X	X	X
Naphthalene 91-20-3	X	X	X
Ethylbenzene 100-41-4	X	X	X
Toluene 108-88-3	X	X	X
Benzene 71-43-2	X	X	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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**Revision Note** SDS sections updated: 3.

**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**