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# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
US OSHA HCS 2024 and Canada Hazardous Products Act (HPA) and
Hazardous Products Regulation (HPR), as amended

**Issuing Date** 19-Jan-2021 **Revision date** 18-Dec-2025 **Revision Number** 4

## 1. Identification

**Product identifier**

**Product Name** SAE 20W-50 100% Synthetic Zero-Turn Hydrostatic Transmission Fluid

**Other means of identification**

**Product Code(s)** AHF

**Synonyms** None

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

**Recommended use** Transmission fluid

**Restrictions on use** Avoid formation of mists

**Details of the supplier of the safety data sheet**

**Supplier Address**
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 of the substance or mixture**

This product is not considered hazardous by either the US OSHA Hazard Communication Standard 2024, or Canada Hazardous Products Act (HPA) and Hazardous Products Regulation (HPR), as amended.

**Label elements**

**Hazard statements**
Not classified.

**Hazards classified under paragraph (d)(1)(ii) of 1910.1200**
No information available.



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**Other information**
May be harmful in contact with skin.

## 3. Composition/information on ingredients

**Substance**

Not applicable.

**Mixture**

**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** | Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth. Get medical attention if symptoms occur. |
| **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. |
| **Effects of Exposure** | No information available. |

**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. |



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| | |
|---|---|
| **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. |
| **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 hands thoroughly after handling. |
| **General hygiene considerations** | Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. |

**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. Protect from physical damage. See section 10 for more information. |

## 8. Exposure controls/personal protection

**Control Parameters**

| | |
|---|---|
| **Exposure Limits** | Under conditions which may generate mists, the following exposure limits are |



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recommended: Long-term exposure limit (8-hour TWA): 5 mg/m³. Short-term exposure limit (15-minute): 10 mg/m³.

**Note** See section 16 for terms and abbreviations.

**Other information on limit values** Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

**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** 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: 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 (includes odor threshold)** Mild hydrocarbon

| Property | Values | Remarks • Method |
|---|---|---|
| **Melting point / freezing point** | | No data available |
| **Boiling point (or initial boiling point or boiling range)** | | 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 |
| **Flash point** | 242 °C / 467.6 °F | Cleveland Open Cup ASTM D 92 |
| **Autoignition temperature** | | No data available |



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| | | |
|---|---|---|
| **Decomposition temperature** | | No data available |
| **SADT (°C)** | | No data available |
| **pH** | | No data available |
| **pH (as aqueous solution)** | | No data available |
| **Kinematic viscosity** | 137.3 cSt at 40 ºC<br>17.2 cSt at 100 ºC | ASTM D445 |
| **Dynamic viscosity** | | No data available |
| **Solubility** | | No data available |
| **Water solubility** | | No data available |
| **Partition coefficient n-octanol/water (log value)** | | No data available |
| **Vapor pressure (includes evaporation rate)** | | No data available |
| **Evaporation rate** | | No data available |
| **Density and/or relative density** | 0.8740 | No data available |
| **Bulk density** | | No data available |
| **Liquid Density** | | No data available |
| **Relative vapor density** | | No data available |
| **Particle characteristics** | | |
| **Particle Size** | | No data available |
| **Particle Size Distribution** | | No data available |

**Other information**

| | |
|---|---|
| **Molecular weight** | No information available |
| **VOC content** | No information available |
| **Softening point** | No information available |
| **Pour Point** | -36ºC [ASTM D 97] |
| **Fire Point** | 258ºC (COC) [ASTM D 92] |

**Information with regard to physical hazard classes**

| | |
|---|---|
| **Explosives** | |
| Explosive properties | No information available |
| **Oxidizing properties** | 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** Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). Thermal decomposition can lead to release of irritating gases and vapors.

## 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.



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**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.

**Acute toxicity** .

**Numerical measures of toxicity**
Based on available data, the classification criteria are not met

**Component Information**

**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.

**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** Large or frequent spills may have hazardous effects on the environment.



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**Persistence and degradability** No information available.

**Bioaccumulation**

**Component Information**

**Other adverse effects** No information available.

## 13. Disposal considerations

**Disposal 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

**US 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.



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**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 <1.5%% zinc compounds, which is a regulated pollutant pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CAA (Clean Air Act)**
This product does not contain any substances regulated as pollutants pursuant to Clean Air Act (CAA).

**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 |
|---|---|
| Ethylbenzene - 100-41-4 | Carcinogen |
| Benzene - 71-43-2 | Carcinogen<br>Developmental<br>Male Reproductive |
| Naphthalene - 91-20-3 | Carcinogen |
| Toluene - 108-88-3 | Developmental |

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

| Chemical name | New Jersey | Massachusetts | Pennsylvania |
|---|---|---|---|
| Zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate) 2215-35-2 | X | - | X |
| Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts 68457-79-4 | X | - | X |
| Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) 4259-15-8 | X | - | X |
| Diphenylamine 122-39-4 | X | X | X |
| Ethylbenzene 100-41-4 | X | X | X |
| Benzene 71-43-2 | X | X | X |
| Naphthalene | X | X | X |



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|---|---|---|---|
| 91-20-3 | | | |
| Toluene<br>108-88-3 | X | X | X |
| Phenol,<br>2,6-bis(1,1-dimethylethyl)-4-methyl-<br>128-37-0 | X | X | X |
| Xylene<br>1330-20-7 | X | X | X |

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable

## 16. Other information

| | | | | |
|---|---|---|---|---|
| **NFPA** | **Health hazards** 0 | **Flammability** 1 | **Instability** 0 | **Special hazards** - |
| **HMIS** | **Health hazards** 0 | **Flammability** 1 | **Physical hazards** 0 | **Personal protection** X |

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

**Legend**

| | |
|---|---|
| ACGIH | American Conference of Governmental Industrial Hygienists |
| ADN | Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Europe) |
| ADR | Agreement concerning the International Carriage of Dangerous Goods by Road (Europe) |
| AIIC | Australian Inventory of Industrial Chemicals |
| ATE | Acute Toxicity Estimate |
| ASTM | American Society for the Testing of Materials |
| bar | Biological Reference Values for Chemical Compounds in the Work Area |
| BAT | Biological tolerance values for occupational exposure |
| BEL | Biological exposure limits |
| bw | Body weight |
| Ceiling | Maximum limit value |
| CMR | Carcinogen, Mutagen or Reproductive Toxicant |
| DOT | Department of Transportation (United States) |
| DSL | Domestic Substances List (Canada) |
| EmS | Emergency Schedule |
| ENCS | Existing and New Chemical Substances (Japan) |
| EPA | U.S. Environmental Protection Agency |
| GHS | Globally Harmonized System |
| HMIS | Hazardous Materials Identification System |
| IARC | International Agency for Research on Cancer |
| IATA | International Air Transport Association |
| IBC | International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk |
| ICAO | International Civil Aviation Organization |
| IECSC | Inventory of Existing Chemical Substances in China |
| IMDG | International Maritime Dangerous Goods |
| IMO | International Maritime Organization |
| ISO | International Organization for Standardization |
| KECI | Korean Existing Chemicals Inventory |
| LC50 | Lethal Concentration to 50% of a test population |
| LD50 | Lethal Dose to 50% of a test population (Median Lethal Dose) |
| MARPOL | International Convention for the Prevention of Pollution from Ships |
| NFPA | National Fire Protection Association |



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| | |
|---|---|
| NIOSH | National Institute for Occupational Safety and Health |
| n.o.s. | Not Otherwise Specified |
| NOAEC | No Observed Adverse Effect Concentration |
| NOAEL | No Observed Adverse Effect Level |
| NOELR | No Observable Effect Loading Rate |
| NTP | National Toxicology Program (United States) |
| NZIoC | New Zealand Inventory of Chemicals |
| OECD | Organization for Economic Cooperation and Development |
| OEL | Occupational exposure limits |
| OSHA | Occupational Safety and Health Administration of the US Department of Labor |
| PBT | Persistent, Bioaccumulative and Toxic substance |
| PICCS | Philippines Inventory of Chemicals and Chemical Substances |
| PMT | Persistent, Mobile and Toxic |
| PPE | Personal protective equipment |
| QSAR | Quantitative Structure Activity Relationship |
| RID | Agreement concerning the International Carriage of Dangerous Goods by Rail (Europe) |
| SADT | Self-Accelerating Decomposition Temperature |
| SAR | Structure-activity relationship |
| SARA | Superfund Amendments and Reauthorization Act |
| SDS | Safety Data Sheet |
| SL | Surface Limit |
| STEL | Short Term Exposure Limit |
| STOT RE | Specific target organ toxicity - Repeated exposure |
| STOT SE | Specific target organ toxicity - Single exposure |
| TCSI | Taiwan Chemical Substance Inventory |
| TDG | Transport of Dangerous Goods (Canada) |
| TSCA | Toxic Substances Control Act (United States) |
| TWA | Time-Weighted Average |
| UN | United Nations |
| VOC | Volatile organic compounds |
| vPvB | Very Persistent and Very Bioaccumulative |
| vPvM | Very Persistent and Very Mobile |
| As | Allergenic substance |
| DS | Dermal Sensitizer |
| Ot | Ototoxicant |
| pOt | Ototoxicant - potential to cause hearing disorders |
| PS | Photosensitizer |
| RS | Respiratory Sensitizer |
| S | Sensitizer |
| poS | Sensitizer - capable of causing occupational asthma |
| Sa | Simple asphyxiant |
| Sd | Skin designation |
| pSd | Skin designation - potential for cutaneous absorption |
| Sdv | Skin designation - vacated |
| Sk | Skin notation |
| dSk | Skin notation - danger of cutaneous absorption |
| pSk | Skin notation - potential for cutaneous absorption |

**Key literature references and sources for data used to compile the SDS**
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
U.S. 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



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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)
U.S. National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
International Organization for Economic Co-operation and Development (OECD) Environment, Health, and Safety Publications
International Organization for Economic Co-operation and Development (OECD) High Production Volume Chemicals Program
International Organization for Economic Co-operation and Development (OECD) Screening Information Data Set
United Nations World Health Organization (WHO)

| | |
|---|---|
| **Issuing Date** | 19-Jan-2021 |
| **Revision date** | 18-Dec-2025 |
| **Revision Note** | Updated format. Name change. SDS sections updated. 3, 8, 11, 12. |

**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**



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