





### SAFETY DATA SHEET AMSOIL Synthetic V-Twin Primary Fluid

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	AMSOIL Synthetic V-Twin Primary Fluid	
Product number	MVP	
Recommended use of the chemical and restrictions on use		
Application	Lubricating oil.	
Uses advised against	Avoid the formation of mists.	
Details of the supplier of the s	afety data sheet	
Supplier	AMSOIL INC. Bordner, Ladner, Gervais Scotia Plaza, 40 King St W Toronto, ON, Canada M5H 3Y4 T: +1 416-367-6547	
Manufacturer	AMSOIL INC. One AMSOIL Center, Superior, WI 54880, USA. T: +1 715-392-7101	
Emergency telephone numbe	<u>r</u>	
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	e or mixture	
OSHA/WHMIS Regulatory Status	This Product is not Hazardous under the OSHA Hazard Communication Standard and according to the hazard criteria of the Hazardous Product Regulations.	
Physical hazards	Not Classified	
Health hazards	Not Classified	
Environmental hazards	Not Classified	
Label elements		
Hazard statements	NC Not Classified	
Other hazards		
This product does not contain any substances classified as PBT or vPvB.		
3. Composition/information on ingredients		

#### Mixtures

Benzenamine, N-phenyl-, reaction products with 2,4,4-1 - <2.5%trimethylpentene1 - <2.5%		
CAS number: 68411-46-1		
<b>Classification</b> Aquatic Chronic 3 - H412		
Phosphorodithioic acid, O,	O-di-C1-14-alkyl esters, zinc salts 1 - <2.5	
CAS number: 68649-42-3		
<b>Classification</b> Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Aquatic Chronic 2 - H411		
The full text for all hazard st	tatements is displayed in Section 16.	
4. First-aid measures		
Description of first aid meas	sures	
General information	Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medic personnel.	
Inhalation	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.	
Ingestion	Rinse mouth thoroughly with water. Remove any dentures. 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 a unconscious person. Maintain an open airway. Loosen tight clothing such as collar, tie or bel	
Skin Contact	Remove affected person from source of contamination. Rinse immediately with plenty of water.	
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes.	
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue.	
Most important symptoms a	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.	
Ingestion	Gastrointestinal symptoms, including upset stomach. Fumes from the stomach contents ma be inhaled, resulting in the same symptoms as inhalation.	
Skin contact	Prolonged contact may cause dryness of the skin.	
Eye contact	May cause temporary eye irritation.	
Indication of immediate med	dical attention and special treatment needed	
Notes for the doctor	Treat symptomatically.	
Specific treatments	No. on original two others and the province of	

#### Specific treatments No special treatment required.

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	ne substance or mixture
Specific hazards	Containers can burst violently 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	Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.
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.
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 measure	S
Personal precautions, protectiv	ve 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. Use protective equipment appropriate for surrounding materials.
Environmental precautions	
Environmental precautions	Avoid discharge to the aquatic environment.
Methods and material for conta	ainment and cleaning up
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. Reuse or recycle products wherever possible. Absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dispose of contents/container in accordance with national regulations.
Reference to other sections	For personal protection, see Section 8. 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. Keep container tightly sealed when not in use. Avoid the formation of mists. Avoid contact with used product. Do not reuse empty containers.	
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). Keep container tightly closed, in a cool, well ventilated place. Protect containers from damage.	
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		
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/m³	
Ingredient comments	The product contains no other substances classified as hazardous to health by an OEL value	

0	in concentrations which should be taken into account.
Exposure controls	
Appropriate engineering controls	Provide adequate ventilation. Good general ventilation should be adequate to control worker exposure to airborne contaminants.
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. The following protection should be worn: Chemical splash goggles.
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.
Respiratory protection	Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Provide adequate ventilation. Large Spillages: If ventilation is inadequate, suitable respiratory protection must be worn.
Environmental exposure controls	Not regarded as dangerous for the environment.

9. Physical and Chemical Properties

#### Information on basic physical and chemical properties

mormation on basic physical	
Appearance	Liquid.
Color	Amber.
Odor	Mild hydrocarbon.
Odor threshold	Not available.
рН	Not available.
Melting point	Not available.
Initial boiling point and range	Not available.
Flash point	238°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	0.8745
Solubility(ies)	Not known.
Partition coefficient	Not available.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	147.9 cSt @ 40°C 18.8 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	258°C Cleveland open cup. [ASTM D 92]
Pour point	-35°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	No specific material or group of materials is likely to react with the product to produce a hazardous situation.
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 eff	fects
Toxicological effects	Not regarded as a health hazard under current legislation.
Acute toxicity - oral Notes (oral LD₅₀)	Based on available data the classification criteria are not met.
Acute toxicity - dermal Notes (dermal LD₅o)	Based on available data the classification criteria are not met.
Acute toxicity - inhalation Notes (inhalation LC <sub>50</sub> )	Based on available data the classification criteria are not met.
Skin corrosion/irritation Animal data	Based on available data the classification criteria are not met.
Serious eye damage/irritation Serious eye damage/irritation	Based on available data the classification criteria are not met.
Respiratory sensitization Respiratory sensitization	Based on available data the classification criteria are not met.
Skin sensitization Skin sensitization	Based on available data the classification criteria are not met.
Germ cell mutagenicity Genotoxicity - in vitro	Based on available data the classification criteria are not met.
Carcinogenicity Carcinogenicity	Based on available data the classification criteria are not met.
IARC carcinogenicity	None of the ingredients are listed or exempt.
Reproductive toxicity 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 - STOT - single exposure	single exposure Not classified as a specific target organ toxicant after a single exposure.
Specific target organ toxicity -	repeated exposure

Specific target organ toxicity - repeated exposure

STOT - repeated exposure	Not classified as a specific target organ toxicant after repeated exposure.	
Aspiration hazard Aspiration hazard	Based on available data the classification criteria are not met.	
General information	No specific health hazards known. 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	May cause temporary eye irritation.	
Route of exposure	Ingestion Inhalation Skin and/or eye contact	
Target Organs	No specific target organs known.	
Medical considerations	Skin disorders and allergies.	
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Toxicological information on ingredients.

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene

Acute toxicity - oral	
Notes (oral LD₅₀)	LD₅₀ >5000 mg/kg, Oral, Rat
Acute toxicity - dermal	
Notes (dermal LD₅₀)	LD₅₀ >2000 mg/kg, Dermal, Rat
Skin corrosion/irritation	
Animal data	Dose: 0.5 mL, 4 hours, Rabbit Erythema/eschar score: Well defined erythema (2). Edema score: Very slight oedema - barely perceptible (1).
Skin sensitization	
Skin sensitization	Guinea pig maximization test (GPMT) - Guinea pig: Not sensitizing.
Germ cell mutagenicity	
Genotoxicity - in vitro	Gene mutation: Negative.
Genotoxicity - in vivo	Chromosome aberration: Negative.
Reproductive toxicity	
Reproductive toxicity - fertility	Screening - NOEL >225 mg/kg/day, Oral, Rat P
Reproductive toxicity - development	Developmental toxicity: - NOAEL: 225 mg/kg/day, Oral, Rat
12. Ecological Information	

Ecotoxicity	Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.
Toxicity	Based on available data the classification criteria are not met.
Ecological information on ingredients.	

#### Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene

Acute	aquatic toxicity	
Acute	toxicity - fish	LC₅₀, 96 hours: >100 mg/l, Brachydanio rerio (Zebra Fish)
	toxicity - aquatic ebrates	EC₅₀, 48 hours: 51 mg/l, Daphnia magna
Acute plants	toxicity - aquatic	EC₅₀, 72 hours: >100 mg/l, Desmodesmus subspicatus
Persistence and de	egradability	
Persistence and de	egradability The deg	gradability of the product is not known.
Ecological informat	ion on ingredients.	
	Benz	enamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene
	stence and dability	No biodegradation observed under test conditions.
Photo	transformation	Water - DT₅o : 0.6 hours
Bioaccumulative po	otential	
Bio-Accumulative F	Potential No data	a available on bioaccumulation.
Partition coefficient	Not ava	ailable.
Ecological informat	ion on ingredients.	
	Benz	enamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene
Bio-A	ccumulative Potentia	al BCF: 1730, Cyprinus carpio (Common carp) The product is not bioaccumulating.
Partiti	on coefficient	log Pow: >6
Mobility in soil		
Mobility	No data	a available.
Ecological informat	ion on ingredients.	
	Benz	enamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene
Mobili	ity	The product is partly soluble in water and may spread in the aquatic environment.
Other adverse effe	cts	
Other adverse effe	cts None k	nown.
13. Disposal consid	derations	
Waste treatment m	ethods	
General information	product way. Di comply	neration of waste should be minimized or avoided wherever possible. Reuse or recycle ts wherever possible. This material and its container must be disposed of in a safe isposal of this product, process solutions, residues and by-products should at all times with the requirements of environmental protection and waste disposal legislation and al authority requirements.

Disposal methods Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste packaging should be collected for reuse or recycling. Incineration or landfill should only be considered when recycling is not feasible. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of the local water authority.

#### 14. Transport information

#### General

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

#### **UN Number**

Not applicable.

#### UN proper shipping name

Not applicable.

#### Transport hazard class(es)

No transport warning sign required.

#### DOT transport labels

No transport warning sign required.

#### Packing group

Not applicable.

#### Environmental hazards

# Environmentally Hazardous Substance No.

#### Special precautions for user

Not applicable.

**DOT TIH Zone** Not applicable.

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

#### 15. Regulatory information

Regulatory ReferencesOSHA Hazard Communication Standard 29 CFR §1910.1200 Hazardous Products Regulation<br/>(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)

None of the ingredients are listed or exempt.

### 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:

Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts 1.0 %

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

#### FDA - Essential Chemical

None of the ingredients are listed or exempt.

**FDA - Precursor Chemical** None of the ingredients are listed or exempt.

SARA (311/312) Hazard Categories None of the ingredients are listed or exempt.

OSHA Highly Hazardous Chemicals

None of the ingredients are listed or exempt.

#### **US State Regulations**

California Proposition 65 Carcinogens and Reproductive Toxins None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-I) None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-II) None of the ingredients are listed or exempt.

California Directors List of Hazardous Substances

None of the ingredients are listed or exempt.

Massachusetts "Right To Know" List

The following ingredients are listed or exempt: Distillates (petroleum), solvent-dewaxed light paraffinic <3% DMSO Distillates (petroleum), hydrotreated light paraffinic <3% DMSO

Rhode Island "Right To Know" List

None of the ingredients are listed or exempt.

Minnesota "Right To Know" List None of the ingredients are listed or exempt.

New Jersey "Right To Know" List None of the ingredients are listed or exempt.

Pennsylvania "Right To Know" List None of the ingredients are listed or exempt.

#### Inventories

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

US - TSCA All the ingredients are listed or exempt.

#### US - TSCA 12(b) Export Notification

None of 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.
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 date	9/18/2017
Revision	0
SDS No.	6173
Hazard statements in full	H315 Causes skin irritation. H318 Causes serious eye damage. H411 Toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects.

This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.