





SAFETY DATA SHEET

Synthetic Multi-Viscosity Hydraulic Oil ISO-22, Synthetic Multi-Viscosity Hydraulic Oil ISO-32, Synthetic Multi-Viscosity Hydraulic Oil ISO-46

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 Multi-Viscosity Hydraulic Oil ISO-22, Synthetic Multi-Viscosity Hydraulic Oil ISO-32, Synthetic Multi-Viscosity Hydraulic Oil ISO-46
Product number	HVG, HVH, HVI
Recommended use of the ch	emical and restrictions on use
Application	Hydraulic oil.
Uses advised against	Avoid the formation of mists.
Details of the supplier of the s	safety data sheet
Supplier	AMSOIL INC. Bordner, Ladner, Gervais Scotia Plaza, 40 King St W Toronto, ON, Canada M T: +1 416-367-6547
Manufacturer	AMSOIL INC. One AMSOIL Center, Superior, WI 54880, USA. T: +1 715-392-7101
Emergency telephone numbe	<u>er</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 substanc	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	
	any substances classified as PBT or vPvB.
3. Composition/information or	n ingredients

Mixtures

Hydrogenated base oil	25 - <50%
CAS number: 64742-54-7	
Classification Asp. Tox. 1 - H304	
The full text for all hazard statements is displayed in Section 16.	
4. First-aid measures	
Description of first aid measures	

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General information	Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical 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 an unconscious person. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.
Skin Contact	Rinse with 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 and	d 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	A single exposure may cause the following adverse effects: Dryness of mouth and throat. Coughing, chest tightness, feeling of chest pressure. Overexposure to organic solvents may depress the central nervous system, causing dizziness and intoxication and, at very high concentrations, unconsciousness and death. Congestion of the lungs may occur, producing severe shortness of breath.
Ingestion	A single exposure may cause the following adverse effects: Irritation. Nausea, vomiting. Symptoms following overexposure may include the following: Unconsciousness. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation.
Skin contact	A single exposure may cause the following adverse effects: Redness. Irritation.
Eye contact	A single exposure may cause the following adverse effects: Redness. Irritation.
Indication of immediate medic	al attention and special treatment needed
Notes for the doctor	Treat symptomatically.
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	he 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	Hydrocarbons. Carbon monoxide (CO). Carbon dioxide (CO2).
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 will provide a basic level of protection for chemical incidents.
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.
Environmental precautions	
Environmental precautions	Immiscible with water. Aquatic toxicity is unlikely to occur. However, large or frequent spills may have hazardous effects on the environment. Absorb spillage with non-combustible, absorbent material. Avoid discharge to the aquatic environment. Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).
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. Approach the spillage from upwind. Small Spillages: Absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. 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. 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	
Proceutions for safe handling	

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. 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, in	ncluding 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.
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/persona	al protection
Ingredient comments	No exposure limits known for ingredient(s).
Exposure controls	
Appropriate engineering controls	Provide adequate ventilation. Good general ventilation should be adequate to control worker exposure to airborne contaminants. Observe any occupational exposure limits for the product or ingredients.
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. Unless the assessment indicates a higher degree of protection is required, 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 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

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	Keep container tightly sealed when not in use.
9. Physical and Chemical Prop	perties
Information on basic physical	and chemical properties
Appearance	Liquid.
Color	Straw.
Odor	Mild hydrocarbon.
Odor threshold	Not available.
рН	Not available.
Melting point	Not available.
Initial boiling point and range	Not available.
Flash point	224-246°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	0.8418-0.8509
Solubility(ies)	Not known.
Partition coefficient	Not available.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	5.2-8.5 cSt @ 100°C [ASTM D 445] 23.6-46.7 cSt @ 40°C [ASTM D 445]
Explosive properties	Not considered to be explosive.
Oxidizing properties	Does not meet the criteria for classification as oxidizing.
Fire point	242-266°C Cleveland open cup. [ASTM D 92]
Pour point	-4449°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 No potentially hazardous reactions known. reactions

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 ef	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	Based on available data the classification criteria are not met.	
Notes (dermal LD₅₀)		
Acute toxicity - inhalation Notes (inhalation LC₅₀)	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.	
	Described and the data the stars if a time with the supervision	
Carcinogenicity	Based on available data the classification criteria are not met.	
IARC carcinogenicity	None of the ingredients are listed or exempt.	
Reproductive toxicity	Described and the data the stars if a time with the supervision	
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		
STOT - single exposure	Not classified as a specific target organ toxicant after a single 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.	

InhalationA single exposure may cause the following adverse effects: Dryness of mouth and throat. Coughing, chest tightness, feeling of chest pressure. Overexposure to organic solvents may depress the central nervous system, causing dizziness and intoxication and, at very high concentrations, unconsciousness and death. Congestion of the lungs may occur, producing severe shortness of breath.IngestionA single exposure may cause the following adverse effects: Irritation. Nausea, vomiting. Symptoms following overexposure may include the following: Unconsciousness. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation.Skin ContactA single exposure may cause the following adverse effects: Redness. Irritation.Eye contactA single exposure may cause the following adverse effects: Redness. Irritation.	General information	No specific health hazards known. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Symptoms following overexposure may include the following: Unconsciousness. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation.Skin ContactA single exposure may cause the following adverse effects: Redness. Irritation.	Inhalation	Coughing, chest tightness, feeling of chest pressure. Overexposure to organic solvents may depress the central nervous system, causing dizziness and intoxication and, at very high concentrations, unconsciousness and death. Congestion of the lungs may occur, producing
	Ingestion	Symptoms following overexposure may include the following: Unconsciousness. Fumes from
Eye contact A single exposure may cause the following adverse effects: Redness. Irritation.	Skin Contact	A single exposure may cause the following adverse effects: Redness. Irritation.
	Eye contact	A single exposure may cause the following adverse effects: Redness. Irritation.
Route of exposure Ingestion Inhalation Skin and/or eye contact	Route of exposure	Ingestion Inhalation Skin and/or eye contact
Target Organs No specific target organs known.	Target Organs	No specific target organs known.
Medical considerations Skin disorders and allergies.	Medical considerations	Skin disorders and allergies.

Toxicological information on ingredients.

Hydrogenated base oil

Acute toxicity - oral	
Notes (oral LD ₅₀)	LD₅₀ >5000 mg/kg, Oral, Rat REACH dossier information.
Acute toxicity - dermal	
Notes (dermal LD₅₀)	LD₅₀ >5000 mg/kg, Dermal, Rabbit REACH dossier information.
Acute toxicity - inhalation	
Notes (inhalation LC ₅₀)	LC₅₀ >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/irritat	ion
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.
Reproductive toxicity - development	Developmental toxicity: - LOAEL: 125 mg/kg/day, Dermal, Rat REACH dossier information.

12. Ecological Info	mation		
Ecotoxicity	Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.		
Toxicity	xicity Based on available data the classification criteria are not met.		
Ecological informat	ion on ingredients.		
		Hydrogenated base oil	
Acute	aquatic toxicity		
Acute	toxicity - fish LL ₅₀ ,	96 hours: > 100 mg/l, Pimephales promelas (Fat-head Minnow)	
	toxicity - aquatic EL₅₀, ebrates	48 hours: > 10000 mg/l, Daphnia magna	
	Acute toxicity - aquatic NOEL, 72 hours: > 100 mg/l, Pseudokirchneriella subcapita plants		
Persistence and de	gradability		
Persistence and de	gradability The degradabi	lity of the product is not known.	
Ecological informat	ion on ingredients.		
		Hydrogenated base oil	
Biode	-	er - Degradation 31: 28 days rently biodegradable.	
Bioaccumulative po	otential		
Bio-Accumulative F	Potential No data availa	No data available on bioaccumulation.	
Partition coefficient	Not available.	Not available.	
Mobility in soil			
Mobility	The product is	The product is insoluble in water.	
Other adverse effe	cts		
Other adverse effe	dverse effects None known.		
13. Disposal consid	lerations		
Waste treatment m	ethods		
General information	products where way. Disposal comply with th	n of waste should be minimized or avoided wherever possible. Reuse or recycle ever possible. This material and its container must be disposed of in a safe of this product, process solutions, residues and by-products should at all times e requirements of environmental protection and waste disposal legislation and prity requirements.	
Disposal methods	contractor. Wa cleaning mater Incineration or	plus products and those that cannot be recycled via a licensed waste disposal aste, residues, empty containers, discarded work clothes and contaminated rials should be collected in designated containers, labeled with their contents. landfill should only be considered when recycling is not feasible. Waste should ad of untreated to the sewer unless fully compliant with the requirements of the thority.	
14. Transport infor	mation		

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)

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 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.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA) None of the ingredients are listed.

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

SARA 313 Emission Reporting

The following ingredients are listed:

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

CAA Accidental Release Prevention

None of the ingredients are listed.

SARA (311/312) Hazard Categories

None of the ingredients are listed.

OSHA Highly Hazardous Chemicals None of the ingredients are listed.

US State Regulations

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

California Air Toxics "Hot Spots" (A-I) The following ingredients are listed:

Triphenyl Phosphite

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

California Directors List of Hazardous Substances None of the ingredients are listed.

Massachusetts "Right To Know" List None of the ingredients are listed.

Rhode Island "Right To Know" List None of the ingredients are listed.

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

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

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

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	6/9/2017
Revision	0
SDS No.	5838
Hazard statements in full	H304 May be fatal if swallowed and enters airways.

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.