

## SAVE UP TO 25%



# SAFETY DATA SHEET Synthetic Anti-Wear Hydraulic Oil ISO-22

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 Anti-Wear Hydraulic Oil ISO-22

Product number AWG

Recommended use of the chemical and restrictions on use

**Application** Hydraulic fluid.

**Uses advised against** Avoid the formation of mists.

Details of the supplier of the safety 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.

AMSOIL INC.
One AMSOIL Center,

Superior, WI 54880, USA. T: +1 715-392-7101 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

OSHA/WHMIS Regulatory This Product is not Hazardous under the OSHA Hazard Communication Standard and

Status 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** 

Dec-1-ene, homopolymer, hydrogenated Dec-1-ene,

25 - <35%

oligomers, hydrogenated CAS number: 68037-01-4

Classification

Asp. Tox. 1 - H304

#### 1-Dodecene dimer with 1-Decene, hydrogenated

10 - <25%

CAS number: 151006-58-5

Classification

Acute Tox. 4 - H332 Asp. Tox. 1 - H304 Aquatic Chronic 4 - H413

## Dec-1-ene, dimers, hydrogenated

10 - <25%

CAS number: 68649-11-6

Classification

Acute Tox. 4 - H332 Asp. Tox. 1 - H304

#### Hydrogenated base oil

1 - <2.5%

CAS number: 64742-47-8

Classification

Skin Irrit. 2 - H315 STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411

#### Hydrogenated base oil

1 - <2.5%

CAS number: 64742-53-6

Classification

Asp. Tox. 1 - H304

The full text for all hazard statements is displayed in Section 16.

Composition comments

The exact percentage is withheld as a trade secret in accordance with 29 CFR 1910.1200.

4. First-aid measures

Description of first aid measures

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. 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** Wash skin thoroughly with soap and 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 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 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.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

Specific treatments No special treatment required.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media 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 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 measures

#### Personal precautions, protective 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 containment 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

Comments The following constituents are the only constituents of the product which have a PEL, TLV or

other recommended exposure limit. At this time, the other constituents have no known

exposure limits.

Under conditions which may generate mists, the following exposure limits are recommended:

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

## **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

**Appearance** Liquid. Color Straw.

Odor Mild hydrocarbon.

Odor threshold Not available. Нα Not available. Melting point Not available.

Initial boiling point and range Not available.

Flash point 174°C Cleveland open cup. [ASTM D 92]

**Evaporation rate** Not available. Upper/lower flammability or Not available.

explosive limits

Vapor pressure Not available.

Vapor density Not available.

Relative density 0.8363

Solubility(ies) Not known.

Partition coefficient Not available.

**Auto-ignition temperature** Not available.

**Decomposition Temperature** Not available.

Viscosity 20.7 cSt @ 40°C

5.9 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 188°C Cleveland open cup. [ASTM D 92]

Pour point <-60°C [ASTM D 97]

#### 10. Stability and reactivity

**Reactivity** See the other subsections of this section for further details.

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 effects

**Toxicological effects** Not regarded as a health hazard under current legislation.

Acute toxicity - oral

Notes (oral LD<sub>50</sub>) Based on available data the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD<sub>50</sub>) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC50) Based on available data the classification criteria are not met.

ATE inhalation (vapours mg/l) 25.0

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 -

Based on available data the classification criteria are not met.

development

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.

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.

Toxicological information on ingredients.

Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated

Acute toxicity - oral

Notes (oral LD₅o) LD₅o >5000 mg/kg, Oral, Rat REACH dossier information. Based on available data

the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD<sub>50</sub>) LD<sub>50</sub> >2000 mg/kg, Dermal, Rat REACH dossier information. Based on available

data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC<sub>50</sub>) LC<sub>50</sub> >5.2 mg/l, Inhalation, Rat REACH dossier information. Based on available data

the classification criteria are not met.

Skin corrosion/irritation

Animal data Dose: 0.5 mL, 24 hours, Rabbit Erythema/eschar score: No erythema (0). Edema

score: No oedema (0). Primary dermal irritation index: 0.5 REACH dossier information. Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation

Dose: 0.1 mL, 72 hours, Rabbit Not irritating. REACH dossier information. Based on

available data the classification criteria are not met.

Skin sensitization

Skin sensitization Guinea pig maximization test (GPMT) - Guinea pig: Not sensitizing. REACH dossier

information. Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Gene mutation: Negative. REACH dossier information. Based on available data the

classification criteria are not met.

**Genotoxicity - in vivo** Chromosome aberration: Negative. REACH dossier information. Based on available

data the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity -

fertility

One-generation study - NOAEL 1000 mg/kg/day, Oral, Rat P REACH dossier information. Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard Aspiration hazard if swallowed. Entry into the lungs following ingestion or vomiting

may cause chemical pneumonitis.

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.

Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated

**Toxicity**Based on available data the classification criteria are not met. Aquatic toxicity is

unlikely to occur.

Acute aquatic toxicity

Acute toxicity - fish LL<sub>50</sub>, 96 hours: >1000 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic

invertebrates

EL<sub>50</sub>, 48 hours: >1000 mg/l, Daphnia magna

Acute toxicity - aquatic

plants

EL<sub>50</sub>, 72 hours: >1000 mg/l, Selenastrum capricornutum

Acute toxicity - microorganisms

NOEC, 28 days: 2 mg/l, Activated sludge

8/12

Chronic aquatic toxicity

Chronic toxicity - aquatic NOELR, 21 days: 125 mg/l, Daphnia magna

invertebrates

Persistence and degradability

Persistence and degradability The degradability of the product is not known.

Ecological information on ingredients.

Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated

Persistence and

Not readily biodegradable.

degradability

**Biodegradation** Water - Degradation 2%: 28 days

Bioaccumulative potential

Bio-Accumulative Potential No data available on bioaccumulation.

Partition coefficient Not available.

Ecological information on ingredients.

Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated

Partition coefficient log Pow: >6.5

Mobility in soil

**Mobility** No data available.

Ecological information on ingredients.

Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated

**Mobility** The product is insoluble in water.

Surface tension 27-29 mN/m @ 20°C

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information The generation of waste should be minimized or avoided wherever possible. Reuse or recycle

products wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and

any local 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** 

UN No. (International) Not applicable.

UN proper shipping name

Proper shipping name

Not applicable.

(International)

Transport hazard class(es)

Transport labels

No transport warning sign required.

Packing group

Packing group (International) Not applicable.

**Environmental hazards** 

**Environmentally Hazardous Substance** 

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

OSHA Hazard Communication Standard 29 CFR §1910.1200 Hazardous Products Regulation **Regulatory References** 

(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:

Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated

1.0 %

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.

#### 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:

Hydrogenated base oil

#### 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 comments** This is the first issue.

Revision date 7/26/2018

**SDS No.** 7821

Hazard statements in full H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation. H332 Harmful if inhaled.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

H413 May cause long lasting harmful effects to aquatic life.

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.