



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
US OSHA Hazard Communication Standard (29 CFR 1910.1200) and Canada WHMIS
2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous
Products Regulation (HPR)

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Revision Number 1

1. Identification

Product identifier

Product Name Synthetic Zinc-Free Hydraulic Oil

Other means of identification

Product Code(s) HSNZ32AA, HSNZ46AA

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use Hydraulic oil

Restrictions on use Avoid formation of mists.

Details of the supplier of the safety data sheet

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

Manufacturer Address
AMSOIL INC.
One AMSOIL Center
Superior, WI 54880, USA
T: +1 715-392-7101

E-mail compliance@amsoil.com

Emergency telephone number

Emergency telephone CHEMTREC: Within USA and Canada: 1-800-424-9300
Outside the USA and Canada: +1 703-741-5970
(collect calls accepted) 24/7

2. Hazard(s) identification

Classification

Skin sensitization	Category 1
Reproductive toxicity	Category 2

Label elements

Warning

Hazard statements

May cause an allergic skin reaction.
Suspected of damaging fertility or the unborn child.

**Precautionary Statements - Prevention**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing, eye protection and face protection. Avoid breathing dust, fume, gas, mist, vapors and spray. Contaminated work clothing must not be allowed out of the workplace.

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention. Specific treatment (see .? on this label).

Skin

IF ON SKIN: Wash with plenty of water and soap. If skin irritation or rash occurs: Get medical advice and attention. Wash contaminated clothing before reuse.

Precautionary Statements - Storage

Store locked up.

Precautionary Statements - Disposal

Dispose of contents and container to an approved waste disposal plant.

Other information

No information available.

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

Chemical name	CAS No	Weight-%	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
Poly long-chain alkyl methacrylate	-	1-5	-	-
N-1-naphthylaniline	90-30-2	0.1-1	-	-
Long-chain alkenyl amide	-	0.1-1	-	-

*The exact percentage (concentration) of composition has been withheld as a trade secret.

Chemical Additions

The classification as a carcinogen does not apply as it can be shown that the substance(s) contain(s) less than 3% DMSO extract as measured by IP 346.

4. First-aid measures

Description of first aid measures**General advice**

Show this safety data sheet to the doctor in attendance. Get medical attention immediately if symptoms occur.

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 with soap and water. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Symptoms	Itching. Rashes. Hives. May cause sensitization especially in sensitive humans. May cause temporary eye irritation. May cause gastrointestinal discomfort if consumed in large amounts. Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness and difficulty breathing.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	May cause sensitization in susceptible persons. Treat symptomatically.
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5. Fire-fighting measures

Suitable Extinguishing Media	Water spray, carbon dioxide (CO ₂), dry chemical, alcohol-resistant foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
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. Product is or contains a sensitizer. May cause sensitization by skin contact. 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	Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
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 Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Take off contaminated clothing and wash before reuse. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Avoid contact with used product. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Do not reuse empty containers. Protect from physical damage. Store away from incompatible materials. See section 10 for more information. Store in accordance with local regulations.

8. Exposure controls/personal protection

Control parameters

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.

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: Wear suitable gloves. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves.

Skin and body protection If there is a risk of contact: Wear suitable protective clothing.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations 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	Straw-colored
Odor	Mild hydrocarbon
Odor threshold	No information available

Property

pH

Values

Remarks • Method

No data available

Melting point / freezing point		No data available
Initial boiling point and boiling range		No data available
Flash point	234 - 236 °C / 453.2 - 456.8 °F	Cleveland Open Cup ASTM D 92
Evaporation rate		No data available
Flammability		No data available
Flammability Limit in Air		
Upper flammability or explosive limits		No data available
Lower flammability or explosive limits		No data available
Vapor pressure		No data available
Vapor density		No data available
Relative density	0.8438-0.8545	No data available
Water solubility		No data available
Solubility(ies)		No data available
Partition coefficient		No data available
Autoignition temperature		No data available
Decomposition temperature		No data available
Kinematic viscosity	33.1-48.2 cSt at 40 °C 7.3-9.2 cSt at 100 °C	ASTM D445
Dynamic viscosity		No data available
<u>Other information</u>		
Explosive properties	No information available.	
Oxidizing properties	No information available.	
Softening point	No information available	
Pour Point	-52-(-47)°C [ASTM D 97]	
Fire Point	256-264°C (COC) [ASTM D 92]	
Molecular weight	No information available	
VOC Content (%)	No information available	
Liquid Density	No information available	
Bulk density	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	Incompatible materials.
Incompatible materials	Acids, Oxidizing agent.
Hazardous decomposition products	Thermal decomposition can lead to release of irritating gases and vapors. Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

11. Toxicological information

Information on likely routes of exposure

Product Information

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 cause sensitization by skin contact. Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with

susceptible persons. (based on components).

Ingestion

Specific test data for the substance or mixture is not available.

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

Itching. Rashes. Hives. May cause sensitization by skin contact. May cause temporary eye irritation. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness and difficulty breathing.

Acute toxicity**Numerical measures of toxicity****Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
N-1-naphthylaniline	= 1625 mg/kg (Rat)	> 8000 mg/kg (Rabbit)	-

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

May cause sensitization by skin contact.

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.

Legend**ACGIH (American Conference of Governmental Industrial Hygienists)**

A2 - Suspected Human Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

NTP (National Toxicology Program)

Known - Known Carcinogen

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

X - Present

Reproductive toxicity

Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. Suspected of damaging fertility or the unborn child.

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**

Not considered to be harmful to aquatic life. Large or frequent spills may have hazardous effects on the environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
N-1-naphthylaniline	-	LC50: =0.44mg/L (96h,	-	-

90-30-2		Oncorhynchus mykiss)	
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Persistence and degradability No information available.

Bioaccumulation No information available.

Mobility in soil No information available.

Other adverse effects No information available.

13. Disposal considerations

Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations, Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

14. Transport information

DOT Not regulated

TDG Not regulated

IATA Not regulated

IMDG Not regulated

15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories

Contact supplier for inventory compliance status

Chemical name	CAS No	US TSCA Inventory listing	US TSCA inactive/active designation
Hydrogenated base oil	72623-87-1	Present	Active
Hydrogenated base oil	64742-54-7	Present	Active
Diisodecyl adipate	27178-16-1	Present	Active
Poly long-chain alkyl methacrylate	-		
Hydrogenated base oil(s)	-		
Hydrogenated base oil	68477-31-6	Present	Active
non hazardous ingredient	-		
Hydrogenated base oil	8042-47-5	Present	Active
N-1-naphthylaniline	90-30-2	Present	Active
Alkylphosphorothioate, long-chain alkyl amine	-		
Long-chain alkenyl amide	-		

Hydrogenated base oil	72623-86-0	Present	Active
Alkylphosphate, alkyl amine	-		
1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-	94270-86-7	Present	Active
2,5-Bis(tert-nonyldithio)-1,3,4-thiadiazole	89347-09-1	Present	Active
Hydrogenated base oil	64742-48-9	Present	Active
Alkyl methacrylate	-		
2-ethylhexyl acrylate	103-11-7	Present	Active
Ethyl acrylate	140-88-5	Present	Active
Aniline	62-53-3	Present	Active
Ethylene oxide	75-21-8	Present	Active
Methyloxirane	75-56-9	Present	Active
Toluene	108-88-3	Present	Active
1,4-dioxane	123-91-1	Present	Active
1-Naphthylamine	134-32-7	Present	Active
Naphthalene	91-20-3	Present	Active
2-Naphthylamine	91-59-8		

*Contact supplier for details. One or more substances in this product are either not listed on the US TSCA inventory, listed on the confidential US TSCA inventory or are otherwise exempted from inventory listing requirements

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product 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.

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

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
Ethyl acrylate - 140-88-5	Carcinogen
Aniline - 62-53-3	Carcinogen
Ethylene oxide - 75-21-8	Carcinogen Developmental Female Reproductive Male Reproductive
Methyloxirane - 75-56-9	Carcinogen
Toluene - 108-88-3	Developmental
1,4-dioxane - 123-91-1	Carcinogen

1-Naphthylamine - 134-32-7	Carcinogen
Naphthalene - 91-20-3	Carcinogen
2-Naphthylamine - 91-59-8	Carcinogen

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
2-ethylhexyl acrylate 103-11-7	X	X	X
Ethyl acrylate 140-88-5	X	X	X
Aniline 62-53-3	X	X	X
Ethylene oxide 75-21-8	X	X	X
Methyloxirane 75-56-9	X	X	X
Toluene 108-88-3	X	X	X
1,4-dioxane 123-91-1	X	X	X
1-Naphthylamine 134-32-7	X	X	X
Naphthalene 91-20-3	X	X	X
2-Naphthylamine 91-59-8	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

Key or legend to abbreviations and acronyms used in the safety data sheet**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)
Ceiling Maximum limit value * Skin designation

Key literature references and sources for data used to compile the SDS

U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 EPA (Environmental Protection Agency)
 Acute Exposure Guideline Level(s) (AEGL(s))
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
 U.S. Environmental Protection Agency High Production Volume Chemicals
 Food Research Journal
 Hazardous Substance Database
 International Uniform Chemical Information Database (IUCLID)
 Japan GHS Classification
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
 NIOSH (National Institute for Occupational Safety and Health)
 National Library of Medicine's ChemID Plus (NLM CIP)
 National Toxicology Program (NTP)
 New Zealand's Chemical Classification and Information Database (CCID)
 Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
 Organization for Economic Co-operation and Development High Production Volume Chemicals Program
 Organization for Economic Co-operation and Development Screening Information Data Set

World Health Organization

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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