



## SAFETY DATA SHEET

### Multi-Viscosity Ashless Hydraulic Oil, ISO-32, Multi-Viscosity Ashless 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** Multi-Viscosity Ashless Hydraulic Oil, ISO-32, Multi-Viscosity Ashless Hydraulic Oil, ISO-46

**Product number** HMOVH, HMOVI

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

**Application** Hydraulic oil.

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

##### 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 Status** This Product is Hazardous under the OSHA Hazard Communication Standard and according to the hazard criteria of the Hazardous Product Regulations.

**Physical hazards** Not Classified

**Health hazards** Skin Sens. 1 - H317

**Environmental hazards** Not Classified

##### Label elements

##### Pictogram



**Signal word** Warning

**Hazard statements** H317 May cause an allergic skin reaction.

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<b>Precautionary statements</b>	P261 Avoid breathing vapor/ spray.
	P272 Contaminated work clothing must not be allowed out of the workplace.
	P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
	P302+P352 If on skin: Wash with plenty of water.
	P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
	P362+P364 Take off contaminated clothing and wash it before reuse.
	P501 Dispose of contents/ container in accordance with national regulations.

**Contains** N-1-naphthylaniline

### Other hazards

This product does not contain any substances classified as PBT or vPvB.

### 3. Composition/information on ingredients

#### Mixtures

<b>Hydrogenated base oil</b>	<b>50 - 100%</b>
CAS number: 72623-87-1	
<b>Classification</b>	
Asp. Tox. 1 - H304	
<b>Poly long-chain alkyl methacrylate</b>	<b>2.5 - &lt;5%</b>
CAS number: —	
<b>Classification</b>	
Eye Irrit. 2A - H319	
<b>N-1-naphthylaniline</b>	<b>0.025 - &lt;0.25%</b>
CAS number: 90-30-2	
M factor (Acute) = 1	
M factor (Chronic) = 1	
<b>Classification</b>	
Acute Tox. 4 - H302	
Skin Sens. 1 - H317	
STOT RE 2 - H373	
Aquatic Acute 1 - H400	
Aquatic Chronic 1 - H410	

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<b>Ethyl acrylate</b>	<b>&lt;0.025%</b>
CAS number: 140-88-5	
<b>Classification</b>	
Flam. Liq. 2 - H225	
Acute Tox. 4 - H302	
Acute Tox. 4 - H312	
Acute Tox. 3 - H331	
Skin Irrit. 2 - H315	
Eye Irrit. 2A - H319	
Skin Sens. 1 - H317	
STOT SE 3 - H335	
Aquatic Chronic 3 - H412	

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

### 4. First-aid measures

#### Description of first aid measures

<b>General information</b>	Get medical attention immediately. Show this Safety Data Sheet to the medical personnel.
<b>Inhalation</b>	Remove affected person from source of contamination. 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. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place.
<b>Ingestion</b>	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. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Place unconscious person on their side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.
<b>Skin Contact</b>	It is important to remove the substance from the skin immediately. In the event of any sensitization symptoms developing, ensure further exposure is avoided. Remove contamination with soap and water or recognized skin cleansing agent. Get medical attention if symptoms are severe or persist after washing.
<b>Eye contact</b>	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 20 minutes.
<b>Protection of first aiders</b>	First aid personnel should wear appropriate protective equipment during any rescue. If it is suspected that volatile contaminants are still present around the affected person, first aid personnel should wear an appropriate respirator or self-contained breathing apparatus. Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation.

#### Most important symptoms and effects, both acute and delayed

<b>General information</b>	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.
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<b>Inhalation</b>	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.
<b>Ingestion</b>	May cause sensitization or allergic reactions in sensitive individuals. 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.
<b>Skin contact</b>	May cause skin sensitization or allergic reactions in sensitive individuals. A single exposure may cause the following adverse effects: Redness. Irritation.
<b>Eye contact</b>	A single exposure may cause the following adverse effects: Redness. Irritation.

### Indication of immediate medical attention and special treatment needed

**Notes for the doctor** Treat symptomatically. May cause sensitization or allergic reactions in sensitive individuals.

## 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 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 (CO<sub>2</sub>).

### 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, 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

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**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. Ensure procedures and training for emergency decontamination and disposal are in place. Do not touch or walk into spilled material. Avoid contact with skin and eyes. Use protective equipment appropriate for surrounding materials.

### 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. Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

### 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. 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. The contaminated absorbent may pose the same hazard as the spilled material. 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

### 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. The product contains a sensitizing substance. Persons susceptible to allergic reactions should not handle this product. 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, including 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. Utilize retaining walls to prevent soil and water pollution in the event of spillage. The storage area floor should be leak-tight, jointless and not absorbent.

**Storage class** Chemical storage.

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### 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

#### **Ethyl acrylate**

Long-term exposure limit (8-hour TWA): ACGIH 5 ppm 20 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): ACGIH 15 ppm 61 mg/m<sup>3</sup>

A4

Long-term exposure limit (8-hour TWA): OSHA 25 ppm 100 mg/m<sup>3</sup>

Sk

ACGIH = American Conference of Governmental Industrial Hygienists.

A4 = Not Classifiable as a Human Carcinogen.

OSHA = Occupational Safety and Health Administration.

Sk = Danger of cutaneous absorption.

**Ingredient comments** The product contains no other substances classified as hazardous to health by an OEL value in concentrations which should be taken into account.

#### **Ethyl acrylate (CAS: 140-88-5)**

**Immediate danger to life  
and health** 300 ppm

#### Exposure controls

#### **Appropriate engineering controls**

Provide adequate ventilation. Personal, workplace environment or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimize worker exposure. Personal protective equipment should only be used if worker exposure cannot be controlled adequately by the engineering control measures. Ensure control measures are regularly inspected and maintained. Ensure operatives are trained to minimize exposure.

#### **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. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.

#### **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.

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<b>Hygiene measures</b>	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 out. Warn cleaning personnel of any hazardous properties of the product.
<b>Respiratory protection</b>	Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is NIOSH approved. Check that the respirator fits tightly and the filter is changed regularly. Full face mask respirators with replaceable filter cartridges should comply with OSHA 1910.134 and/or the Canadian regulation on health and safety at work, SOR/86-304, Part XII (12.7), and any relevant provincial regulation relating to health and safety at work. Gas and combination filter cartridges should comply with OSHA 1910.134 and/or the Canadian regulation on health and safety at work, SOR/86-304, Part XII (12.7), and any relevant provincial regulation relating to health and safety at work. Half mask and quarter mask respirators with replaceable filter cartridges should comply with OSHA 1910.134 and/or the Canadian regulation on health and safety at work, SOR/86-304, Part XII (12.7), and any relevant provincial regulation relating to health and safety at work.
<b>Environmental exposure controls</b>	Keep container tightly sealed when not in use.

### 9. Physical and Chemical Properties

#### Information on basic physical and chemical properties

<b>Appearance</b>	Liquid.
<b>Color</b>	Straw.
<b>Odor</b>	Mild hydrocarbon.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point</b>	Not available.
<b>Initial boiling point and range</b>	Not available.
<b>Flash point</b>	228 - 232°C Cleveland open cup. [ASTM D 92]
<b>Evaporation rate</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Relative density</b>	0.8408 - 0.8509
<b>Solubility(ies)</b>	Not known.
<b>Partition coefficient</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition Temperature</b>	Not available.
<b>Viscosity</b>	7.0 - 8.9 cSt @ 100°C 32.2 - 47.3 cSt @ 40°C [ASTM D 445]

## Multi-Viscosity Ashless Hydraulic Oil, ISO-32, Multi-Viscosity Ashless Hydraulic Oil, ISO-46

<b>Explosive properties</b>	Not considered to be explosive.
<b>Oxidizing properties</b>	Does not meet the criteria for classification as oxidizing.
<b>Fire point</b>	252 - 264°C Cleveland open cup. [ASTM D 92]
<b>Pour point</b>	-48 - (-51)°C [ASTM D 97]

### 10. Stability and reactivity

<b>Reactivity</b>	See the other subsections of this section for further details.
<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
<b>Possibility of hazardous reactions</b>	No potentially hazardous reactions known.
<b>Conditions to avoid</b>	There are no known conditions that are likely to result in a hazardous situation.
<b>Materials to avoid</b>	Oxidizing agents. Acids - oxidizing.
<b>Hazardous decomposition products</b>	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

#### 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 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** May cause skin sensitization or allergic reactions in sensitive individuals.

#### 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.



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**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.

### **General information**

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**

May cause sensitization or allergic reactions in sensitive individuals. 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**

May cause skin sensitization or allergic reactions in sensitive individuals. 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

### **Target Organs**

No specific target organs known.

### **Medical considerations**

Skin disorders and allergies.

### Toxicological information on ingredients.

#### Hydrogenated base oil

##### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** LD<sub>50</sub> > 5000 mg/kg, Oral, Rat Read-across data. REACH dossier information.

##### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** LD<sub>50</sub> > 5000 mg/kg, Dermal, Rabbit Read-across data. REACH dossier information.

##### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** LC<sub>50</sub> > 5.53 mg/l, Inhalation, Rat 4 hours Read-across data. REACH dossier information.

##### Skin corrosion/irritation

##### **Animal data**

Dose: 0.5 ml, 24 hours, Rabbit Erythema/eschar score: Very slight erythema - barely perceptible (1). Edema score: No oedema (0). Read-across data. REACH dossier information. Not irritating.

##### Serious eye damage/irritation

##### **Serious eye damage/irritation**

Dose: 0.1 ml, 30 seconds, Rabbit Cornea score: 0 Iris score: 0 Conjunctivae score: 0.33 Read-across data. REACH dossier information.

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### Skin sensitization

**Skin sensitization** Buehler test - Guinea pig: Not sensitizing. Read-across data. REACH dossier information.

### Germ cell mutagenicity

**Genotoxicity - in vitro** Chromosome aberration: Negative. Read-across data. REACH dossier information.

### Reproductive toxicity

**Reproductive toxicity - fertility** Screening - NOAEL > 1000 mg/kg/day, Oral, Rat P Read-across data. REACH dossier information.

### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** LOAEL 125 mg/kg/day, Oral, Rat Read-across data. REACH dossier information.

### Aspiration hazard

**Aspiration hazard** Aspiration hazard if swallowed.

## N-1-naphthylaniline

### Acute toxicity - oral

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 1,625.0

**Species** Rat

**Notes (oral LD<sub>50</sub>)** REACH dossier information.

**ATE oral (mg/kg)** 1,625.0

### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** LD<sub>50</sub> > 5000 mg/kg, Dermal, Rabbit REACH dossier information.

### Skin corrosion/irritation

**Animal data** Dose: 0.5g, 4 hours, Rabbit Erythema/eschar score: No erythema (0). Edema score: No oedema (0). REACH dossier information.

### Skin sensitization

**Skin sensitization** Guinea pig maximization test (GPMT) - Guinea pig: Sensitizing. REACH dossier information.

### Germ cell mutagenicity

**Genotoxicity - in vitro** Chromosome aberration: Negative. REACH dossier information.

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

### Reproductive toxicity

**Reproductive toxicity - development** Developmental toxicity:, Maternal toxicity: - NOAEL: 50 mg/kg/day, Oral, Rat REACH dossier information.

### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** NOAEL 5 mg/kg/day, Oral, Rat REACH dossier information.

## 12. Ecological Information

**Ecotoxicity** Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

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

### Ecological information on ingredients.

#### Hydrogenated base oil

##### Acute aquatic toxicity

**Acute toxicity - fish** LL<sub>50</sub>, 96 hours: > 100 mg/l, Pimephales promelas (Fat-head Minnow)

**Acute toxicity - aquatic invertebrates** EL<sub>50</sub>, 48 hours: > 10000 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** NOEL, 72 hours: > 100 mg/l, Pseudokirchneriella subcapitata

#### N-1-naphthylaniline

##### Acute aquatic toxicity

**LE(C)<sub>50</sub>** 0.1 < L(E)C<sub>50</sub> ≤ 1

**M factor (Acute)** 1

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 0.44 mg/l, Oncorhynchus mykiss (Rainbow trout)

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: 0.3 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 96 hours: 0.93 mg/l, Pseudokirchneriella subcapitata

##### Chronic aquatic toxicity

**M factor (Chronic)** 1

**Chronic toxicity - aquatic invertebrates** NOEC, 21 days: 0.02 mg/l, Daphnia magna  
Weight of evidence.

### Persistence and degradability

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

### Ecological information on ingredients.

#### Hydrogenated base oil

**Biodegradation** Water - Degradation 31%: 28 days  
Inherently biodegradable.

#### N-1-naphthylaniline

**Phototransformation** Water - Degradation 98: 46 minutes

**Biodegradation** Water - Degradation 50: 5 days  
Inherently biodegradable.

### Bioaccumulative potential

**Bio-Accumulative Potential** No data available on bioaccumulation.

**Partition coefficient** Not available.

### Ecological information on ingredients.

#### N-1-naphthylaniline

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**Bio-Accumulative Potential** BCF:  $\geq 427$ , Cyprinus carpio (Common carp)

**Partition coefficient** log Pow: 4.28

### Mobility in soil

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

### Ecological information on ingredients.

#### N-1-naphthylaniline

**Adsorption/desorption coefficient** Soil - Log Koc: 3.227 @ 25°F

### 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. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

#### **Disposal methods**

Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labeled with their contents. Incineration or landfill should only be considered when recycling is not feasible.

## 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)

#### **Transport labels**

No transport warning sign required.

#### Packing group

Not applicable.

#### Environmental hazards

#### **Environmentally Hazardous Substance**

No.

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### Special precautions for user

Not applicable.

**DOT TIH Zone** Not applicable.

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

### 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)**

The following ingredients are listed:

*Ethyl acrylate*

Final CERCLA RQ: 1000(454) pounds (Kilograms)

#### **SARA Extremely Hazardous Substances EPCRA Reportable Quantities**

None of the ingredients are listed.

#### **SARA 313 Emission Reporting**

The following ingredients are listed:

*Ethyl acrylate*

0.1 %

#### **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**

The following ingredients are listed:

*Ethyl acrylate*

Known to the State of California to cause cancer.

#### **California Air Toxics "Hot Spots" (A-I)**

The following ingredients are listed:

*Ethyl acrylate*

#### **California Air Toxics "Hot Spots" (A-II)**

None of the ingredients are listed.

#### **California Directors List of Hazardous Substances**

The following ingredients are listed:

## Multi-Viscosity Ashless Hydraulic Oil, ISO-32, Multi-Viscosity Ashless Hydraulic Oil, ISO-46

*Ethyl acrylate*

### Massachusetts "Right To Know" List

The following ingredients are listed:

*2-ethylhexyl acrylate*

*Ethyl acrylate*

### Rhode Island "Right To Know" List

The following ingredients are listed:

*2-ethylhexyl acrylate*

*Ethyl acrylate*

### Minnesota "Right To Know" List

The following ingredients are listed:

*Ethyl acrylate*

### New Jersey "Right To Know" List

The following ingredients are listed:

*2-ethylhexyl acrylate*

*Ethyl acrylate*

### Pennsylvania "Right To Know" List

The following ingredients are listed:

*2-ethylhexyl acrylate*

*Ethyl acrylate*

## 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.

## Multi-Viscosity Ashless Hydraulic Oil, ISO-32, Multi-Viscosity Ashless Hydraulic Oil, ISO-46

<b>Classification abbreviations and acronyms</b>	Skin Sens. = Skin sensitisation
<b>Key literature references and sources for data</b>	Source: European Chemicals Agency, <a href="http://echa.europa.eu/">http://echa.europa.eu/</a>
<b>Training advice</b>	Read and follow manufacturer's recommendations. Only trained personnel should use this material.
<b>Revision date</b>	9/28/2017
<b>Revision</b>	2
<b>Supersedes date</b>	6/7/2017
<b>SDS No.</b>	6214
<b>Hazard statements in full</b>	H225 Highly flammable liquid and vapor. H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. H312 Harmful in contact with skin. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H331 Toxic if inhaled. H335 May cause respiratory irritation. H373 May cause damage to organs through prolonged or repeated exposure. H400 Very toxic to aquatic life. H410 Very 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.