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# SAFETY DATA SHEET

**Heavy-Duty Synthetic Diesel Oil**

**Date** : 10/01/2016
**Version** : 4

## Section 1. Identification

**GHS product identifier** : Heavy-Duty Synthetic Diesel Oil

**Code** : ADN

**Product type** : Liquid.

**Identified uses** : Diesel Engine Oil. Not to be misted.

**Manufacturer** : AMSOIL INC.
One AMSOIL Center
Superior, WI 54880
Tel: +1 715-392-7101

**Initial Supplier (Canada)** : AMSOIL INC.
Bordner, Ladner, Gervais
Scotia Plaza, 40 King St W
Toronto, ON, Canada M5H 3Y4
Tel: +1 416-367-6547

**Emergency telephone number (with hours of operation)** : CHEMTREC: Within USA and Canada: 1-800-424-9300;
Outside USA and Canada: +1 703-741-5970 (collect calls accepted)
(24/7)

## Section 2. Hazards identification

**OSHA/HCS status** : This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** : AQUATIC HAZARD (ACUTE) - Category 3
AQUATIC HAZARD (LONG-TERM) - Category 3

**GHS label elements**

**Signal word** : No signal word.

**Hazard statements** : Harmful to aquatic life with long lasting effects.

**Precautionary statements**

**Prevention** : Avoid release to the environment.

**Response** : Not applicable.

**Storage** : Not applicable.

**Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Hazards not otherwise classified (HNOC)**

**Physical hazards not otherwise classified (PHNOC)** : None known.



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**Health hazards not otherwise classified (HHNOC)** : None known.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

**Other means of identification** : Not available.

**CAS number/other identifiers**

**CAS number** : Not applicable.

**Product code** : ADN

| Ingredient name | % | CAS number |
|---|---|---|
| bis(Nonylphenyl)amine | 1 - 5 | 36878-20-3 |
| Zinc Dialkyldithiophosphate | 1 - 5 | 84605-29-8 |
| Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts | 1 - 5 | - |
| Diphenylamine | 0.1 - 1 | 122-39-4 |
| Alkylated phenol | 0 - 0.1 | 121158-58-5 |

**Any concentration shown as a range is to protect confidentiality or is due to batch variation.**

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

**Occupational exposure limits, if available, are listed in Section 8.**

## Section 4. First aid measures

**Description of necessary first aid measures**

**Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention if irritation occurs.

**Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Maintain an open airway. Get medical attention if symptoms occur.

**Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

**Most important symptoms/effects, acute and delayed**

**Potential acute health effects**

**Eye contact** : No known significant effects or critical hazards.

**Inhalation** : No known significant effects or critical hazards.



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**Skin contact** : No known significant effects or critical hazards.

**Ingestion** : No known significant effects or critical hazards.

**Over-exposure signs/symptoms**

**Eye contact** : No known significant effects or critical hazards.

**Inhalation** : No known significant effects or critical hazards.

**Skin contact** : No known significant effects or critical hazards.

**Ingestion** : No known significant effects or critical hazards.

**Indication of immediate medical attention and special treatment needed, if necessary**

**Notes to physician** : Treat symptomatically.

**Specific treatments** : No specific treatment.

**Protection of first-aiders** : No special protection is required.

**See toxicological information (Section 11)**

## Section 5. Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media** : None known.

**Specific hazards arising from the chemical** : This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides

**Special protective actions for fire-fighters** : No special protection is required.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel** : Put on appropriate personal protective equipment.

**For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".



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**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

**Methods and materials for containment and cleaning up**

**Spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

**Precautions for safe handling**

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Avoid contact with used product. Do not reuse container.

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

**Control parameters**

**Occupational exposure limits**

**Under conditions which may generate mists, the following additional exposure limits are recommended: ACGIH TLV TWA: 5 mg/m³ ; STEL: 10 mg/m³.**

**United States**



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| Ingredient name | Exposure limits |
|---|---|
| Diphenylamine | **ACGIH TLV (United States, 3/2015).**<br>TWA: 10 mg/m³ 8 hours.<br>**NIOSH REL (United States, 10/2013).**<br>TWA: 10 mg/m³ 10 hours. |

**Canada**

**Occupational exposure limits**

None.

**Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

**Individual protection measures**

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

**Skin protection**

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : Not required under normal conditions of use.

## Section 9. Physical and chemical properties

**Appearance**

**Physical state** : Liquid.

**Color** : Brown.

**Odor** : Mild hydrocarbon.

**Odor threshold** : Not available.

**pH** : Not available.

**Melting point** : -38°C (-36.4°F)



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| | | |
|---|---|---|
| **Boiling point** | : | Not available. |
| **Flash point** | : | Open cup: 232°C (449.6°F) [Cleveland.] |
| **Evaporation rate** | : | Not available. |
| **Flammability (solid, gas)** | : | Not available. |
| **Lower and upper explosive (flammable) limits** | : | Not available. |
| **Vapor pressure** | : | Not available. |
| **Vapor density** | : | Not available. |
| **Relative density** | : | 0.856 |
| **Solubility** | : | Not available. |
| **Partition coefficient: n-octanol/water** | : | Not available. |
| **Auto-ignition temperature** | : | Not available. |
| **Decomposition temperature** | : | Not available. |
| **Viscosity** | : | Kinematic: 0.12 $cm^2/s$ (12 cSt) (100°C)<br>Kinematic: 0.793 $cm^2/s$ (79.3 cSt) (40°C) |
| **Volatility** | : | Not available. |

## Section 10. Stability and reactivity

| | | |
|---|---|---|
| **Reactivity** | : | No specific test data related to reactivity available for this product or its ingredients. |
| **Chemical stability** | : | The product is stable. |
| **Possibility of hazardous reactions** | : | Under normal conditions of storage and use, hazardous reactions will not occur. |
| **Conditions to avoid** | : | No specific data. |
| **Incompatible materials** | : | Reactive or incompatible with the following materials: oxidizing materials. |
| **Hazardous decomposition products** | : | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|---|---|---|---|
| Zinc Dialkyldithiophosphate<br>Diphenylamine | LD50 Oral<br>LD50 Dermal<br>LD50 Oral | Rat<br>Rabbit<br>Rat | 3.2 g/kg<br>>5000 mg/kg<br>1120 mg/kg | -<br>-<br>- |

#### Irritation/Corrosion



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There is no data available.

**Sensitization**

There is no data available.

**Carcinogenicity**

There is no data available.

**Specific target organ toxicity (single exposure)**

There is no data available.

**Specific target organ toxicity (repeated exposure)**

| Name | Category | Route of exposure | Target organs |
|---|---|---|---|
| Diphenylamine | Category 2 | Not determined | Not determined |

**Aspiration hazard**

There is no data available.

**Information on the likely routes of exposure** : Eye contact. Inhalation. Ingestion.

**Potential acute health effects**

**Eye contact** : No known significant effects or critical hazards.

**Inhalation** : No known significant effects or critical hazards.

**Skin contact** : No known significant effects or critical hazards.

**Ingestion** : No known significant effects or critical hazards.

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

**Eye contact** : No known significant effects or critical hazards.

**Inhalation** : No known significant effects or critical hazards.

**Skin contact** : No known significant effects or critical hazards.

**Ingestion** : No known significant effects or critical hazards.

**Delayed and immediate effects and also chronic effects from short and long term exposure**

**Short term exposure**

**Potential immediate effects** : No known significant effects or critical hazards.

**Potential delayed effects** : No known significant effects or critical hazards.

**Long term exposure**

**Potential immediate effects** : No known significant effects or critical hazards.

**Potential delayed effects** : No known significant effects or critical hazards.

**Potential chronic health effects**

**General** : No known significant effects or critical hazards.

**Carcinogenicity** : No known significant effects or critical hazards.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.



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**Fertility effects** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

| Route | ATE value |
|---|---|
| Oral | 228050.7 mg/kg |

## Section 12. Ecological information

### Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---|---|---|---|
| Diphenylamine | Acute EC50 2.17 mg/L Fresh water<br><br>Acute EC50 0.31 mg/L Fresh water<br>Acute LC50 2.2 ppm Fresh water<br>Chronic NOEC 0.37 mg/L Fresh water | Algae - Pseudokirchneriella subcapitata - Exponential growth phase<br><br>Daphnia - Daphnia magna<br>Fish - Oncorhynchus mykiss<br>Algae - Pseudokirchneriella subcapitata - Exponential growth phase | 72 hours<br><br>48 hours<br>96 hours<br>72 hours |

### Persistence and degradability

There is no data available.

### Bioaccumulative potential

| Product/ingredient name | $LogP_{ow}$ | BCF | Potential |
|---|---|---|---|
| bis(Nonylphenyl)amine | 3.64 to 7.02 | 1730 | high |
| Zinc Dialkyldithiophosphate | 0.56 | - | low |
| Diphenylamine | 3.5 | 151.36 | low |
| Alkylated phenol | 6.1 | 1601 | high |

### Mobility in soil

**Soil/water partition coefficient ($K_{OC}$)** : There is no data available.

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid



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dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

| | DOT | TDG | IMDG | IATA |
|---|---|---|---|---|
| **UN number** | Not regulated. | Not regulated. | Not regulated. | Not regulated. |
| **UN proper shipping name** | - | - | - | - |
| **Transport hazard class(es)** | - | - | - | - |
| **Packing group** | - | - | - | - |
| **Environmental hazards** | No. | No. | No. | No. |
| **Additional information** | - | - | - | - |

**AERG** : Not applicable

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to Annex II of MARPOL and the IBC Code** : Not available.

## Section 15. Regulatory information

**U.S. Federal regulations** : **United States inventory (TSCA 8b)**: All components are listed or exempted.
**Clean Water Act (CWA) 307**: Zinc Dialkyldithiophosphate

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed



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**DEA List II Chemicals (Essential Chemicals)** : Not listed

**SARA 302/304**

**Composition/information on ingredients**

No products were found.

**SARA 304 RQ** : Not applicable.

**SARA 311/312**

**Classification** : Not applicable.

**Composition/information on ingredients**

| Name | Fire hazard | Sudden release of pressure | Reactive | Immediate (acute) health hazard | Delayed (chronic) health hazard |
|---|---|---|---|---|---|
| Zinc Dialkyldithiophosphate | No. | No. | No. | Yes. | No. |
| Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts | No. | No. | No. | Yes. | No. |
| Diphenylamine | No. | No. | No. | Yes. | Yes. |
| Alkylated phenol | No. | No. | No. | Yes. | Yes. |

**SARA 313**

| | Product name | CAS number | % |
|---|---|---|---|
| **Form R - Reporting requirements** | Zinc Dialkyldithiophosphate | 84605-29-8 | 1 - 5 |
| **Supplier notification** | Zinc Dialkyldithiophosphate | 84605-29-8 | 1 - 5 |

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

**State regulations**

**Massachusetts** : None of the components are listed.

**New York** : None of the components are listed.

**New Jersey** : The following components are listed: Zinc Dialkyldithiophosphate

**Pennsylvania** : None of the components are listed.

**California Prop. 65**

No products were found.

**Canada**

**Canadian lists**

**Canadian NPRI** : The following components are listed: Zinc Dialkyldithiophosphate

**CEPA Toxic substances** : None of the components are listed.

**Canada inventory** : All components are listed or exempted.



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# Section 16. Other information

## History

| | | |
|---|---|---|
| **Date of issue mm/dd/yyyy** | : | 10/01/2016 |
| **Date of previous issue** | : | 08/15/2014 |
| **Version** | : | 4 |
| **Prepared by** | : | AMSOIL INC. |

**Notice to reader**

**To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.**
**Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.**



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