

## 1. Identification

**Product identifier** SAE 5W-40 FULL SYNTHETIC DIESEL MOTOR OIL

**Other means of identification**

**FIR No.** 198811

**Recommended use** Diesel engine service fill motor oil

**Recommended restrictions** None known.

**Manufacturer/Importer/Supplier/Distributor information**

**Company Name** Ford Motor Company

**Address** Attention: SDS Information, P.O. Box 1899  
Dearborn, Michigan 48121  
USA

**Telephone** 1-800-392-3673

**SDS Information** 1-800-448-2063 (USA and Canada)  
fordsds.com

**Emergency telephone numbers**

Poison Control Center: USA and Canada: 1-800-959-3673  
INFOTRAC (Transportation): USA and Canada 1-800-535-5053

## 2. Hazard(s) identification

**Physical hazards** Not classified.

**Health hazards** Not classified.

**Environmental hazards** Not classified.

**OSHA defined hazards** Not classified.

**Label elements**

**Hazard symbol** None.

**Signal word** None.

**Hazard statement** The mixture does not meet the criteria for classification.

**Precautionary statement**

**Prevention** Observe good industrial hygiene practices.

**Response** Take off contaminated clothing and wash it before reuse.

**Storage** Store away from incompatible materials.

**Disposal** Dispose of waste and residues in accordance with local authority requirements.

**Hazard(s) not otherwise classified (HNOC)** None known.

**Supplemental information** None.

## 3. Composition/information on ingredients

**Mixtures**

Chemical name	Common name and synonyms	CAS number	%
Distillates (petroleum), hydrotreated heavy paraffinic		64742-54-7	73 - < 77
Dec-1-ene, homopolymer, hydrogenated.Dec-1-ene, oligomers, hydrogenated		68037-01-4	10

Specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

## 4. First-aid measures

**Inhalation** Move to fresh air. Call a physician if symptoms develop or persist.

**Skin contact** Wash off with soap and water. Get medical attention if irritation develops and persists.

**Eye contact** Rinse with water. Get medical attention if irritation develops and persists.

<b>Ingestion</b>	Rinse mouth. Get medical attention if symptoms occur.
<b>Most important symptoms/effects, acute and delayed</b>	Direct contact with eyes may cause temporary irritation.
<b>Indication of immediate medical attention and special treatment needed</b>	Treat symptomatically.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed. Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Avoid contact with eyes, skin, and clothing. Avoid breathing mist or vapor. Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	<p>The product is immiscible with water and will spread on the water surface.</p> <p>Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.</p> <p>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</p> <p>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.</p> <p>Avoid discharge into drains, water courses or onto the ground.</p>
<b>Environmental precautions</b>	

### 7. Handling and storage

<b>Precautions for safe handling</b>	Avoid contact with eyes, skin, and clothing. Avoid breathing mist or vapor. Avoid prolonged exposure. Observe good industrial hygiene practices. For personal protection, see Section 8 of the SDS.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

### 8. Exposure controls/personal protection

#### Occupational exposure limits

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.

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	PEL	5 mg/m3	Mist.

#### US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	TWA	5 mg/m3	Inhalable fraction.

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value	Form
Distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
Biological limit values	No biological exposure limits noted for the ingredient(s).		
Appropriate engineering controls	Use adequate ventilation to control airborne concentrations below the exposure limits/guidelines. If user operations generate a vapor, dust and/or mist, use process enclosure, appropriate local exhaust ventilation, or other engineering controls to control airborne levels below the recommended exposure limits/guidelines.		
Individual protection measures, such as personal protective equipment			
Eye/face protection	Wear safety glasses with side shields (or goggles).		
Skin protection			
Hand protection	Suitable chemical protective gloves should be worn when the potential exists for skin exposure. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Nitrile gloves are recommended.		
Other	Wear appropriate chemical resistant clothing if applicable.		
Respiratory protection	If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, an approved respirator must be worn. Respirator selection, use and maintenance should be in accordance with the requirements of OSHA Respiratory Protection Standard 29 CFR 1910.134 and/or Canadian Standard CSA Z94.4.		
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.		
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.		

**9. Physical and chemical properties****Appearance**

<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Amber.
<b>Odor</b>	PETROLEUM
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	410.0 °F (210.0 °C) Pensky-Martens Closed Cup
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	< 1 mm Hg
<b>Vapor density</b>	> 1 (Air=1)
<b>Relative density</b>	0.848 (Water=1)
<b>Relative density temperature</b>	60.08 °F (15.6 °C)
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Negligible
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	89 cSt
<b>Viscosity temperature</b>	104 °F (40 °C)

## Other information

Bulk density	7.06 lb/gal
Pour point	-40 °F (-40 °C)

## 10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

## 11. Toxicological information

### Information on likely routes of exposure

Inhalation	Based on available data, the classification criteria are not met. Prolonged inhalation may be harmful.
Skin contact	Based on available data, the classification criteria are not met. Prolonged skin contact may cause temporary irritation.
Eye contact	Based on available data, the classification criteria are not met. Direct contact with eyes may cause temporary irritation.
Ingestion	Based on available data, the classification criteria are not met. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms related to the physical, chemical and toxicological characteristics  
Direct contact with eyes may cause temporary irritation.

### Information on toxicological effects

Acute toxicity  
Not expected to be hazardous by OSHA criteria.

Components	Species	Calculated/Test Results
Dec-1-ene, homopolymer, hydrogenated.Dec-1-ene, oligomers, hydrogenated (CAS 68037-01-4)		

#### Acute

#### Oral

#### *Liquid*

LD50	Rat	> 5000 mg/kg
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Distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)

#### Acute

#### Oral

#### *Liquid*

LD50	Rat	> 15000 mg/kg
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Skin corrosion/irritation  
Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation  
Direct contact with eyes may cause temporary irritation.

### Respiratory or skin sensitization

Respiratory sensitization  
Not a respiratory sensitizer.

Skin sensitization  
This product is not expected to cause skin sensitization.

Germ cell mutagenicity  
No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity  
Continuous long term contact with used motor oil has caused skin cancer in animal tests. Base oil severely refined: Not carcinogenic in animal studies. Representative material passes IP-346, Modified Ames test, and/or other screening tests.

### IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Reproductive toxicity  
This product is not expected to cause reproductive or developmental effects.

<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not an aspiration hazard.
<b>Chronic effects</b>	Prolonged inhalation may be harmful.

## 12. Ecological information

<b>Ecotoxicity</b>	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
<b>Persistence and degradability</b>	No data is available on the degradability of any ingredients in the mixture.
<b>Bioaccumulative potential</b>	No data available.
<b>Mobility in soil</b>	No data available.
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## 13. Disposal considerations

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Don't pollute. Conserve resources. Return used oil to collection centers.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

<b>DOT</b>	Not regulated as dangerous goods.
<b>IATA</b>	Not regulated as dangerous goods.
<b>IMDG</b>	Not regulated as dangerous goods.
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not established.

## 15. Regulatory information

<b>US federal regulations</b>	This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
<b>Toxic Substances Control Act (TSCA)</b>	
<b>TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)</b>	
Not regulated.	
<b>CERCLA Hazardous Substance List (40 CFR 302.4)</b>	
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts (CAS 84605-29-8)	
Listed.	
<b>SARA 304 Emergency release notification</b>	
Not regulated.	
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)</b>	
Not listed.	
<b>Superfund Amendments and Reauthorization Act of 1986 (SARA)</b>	
<b>SARA 302 Extremely hazardous substance</b>	
Not listed.	
<b>SARA 311/312 Hazardous chemical</b>	No

**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts	84605-29-8	0.9 - < 2

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.**US state regulations****California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**International Inventories**

All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.

**16. Other information, including date of preparation or last revision****Issue date** 06-12-2023**Revision date** 06-12-2023**Version** 02**HMIS® ratings** Health: 0  
Flammability: 1  
Physical hazard: 0**NFPA ratings** Health: 0  
Flammability: 1  
Instability: 0

**Preparation Information and Disclaimer** This document was prepared by FCSD-Toxicology, Ford Motor Company, Diagnostic Service Center II, 1800 Fairlane Drive, Allen Park, MI 48101, USA, based in part on information provided by the manufacturer. The information on this data sheet represents our current data and is accurate to the best of our knowledge as to the proper handling of this product under normal conditions and in accordance with the application specified on the packaging and/or technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user. To the extent that there are any differences between this product's Safety Data Sheet (SDS) and the consumer packaged product labels, the SDS should be followed.

**Revision information** Product and Company Identification: Part Numbers  
Composition / Information on Ingredients: Disclosure Overrides  
Accidental release measures: Personal precautions, protective equipment and emergency procedures  
Exposure controls/personal protection: Occupational exposure limits  
Toxicological information: Carcinogenicity

**Part number(s)** XO-5W40-5Q3SD, XO-5W40-DSD, XO-5W40-QSD