



REAR AXLE OIL SAE 90

SAFETY DATA SHEET

according to Regulation (EU) 2015/830

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1. SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name	Rear Axle Oil SAE 90
Product code	Ford Int. Ref. No.: 108289
SDS Number	5187
Product use	Professional use

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	Transmission, Axle and Power Steering Fluids
Uses advised against	None known

1.3. Details of the supplier of the safety data sheet

Supplier	Distributor
Ford-Werke GmbH Edsel-Ford-Str. 2-14 50769 Cologne Germany +49 221 90-33333 sdseu@ford.com	Ford Motor Company Ltd. Parts Distribution Centre Royal Oak Way South NN11 8NT Daventry, Northants United Kingdom +44 1327 305 198

1.4. Emergency telephone number

+49 (0) 6132-84463 (GBK GmbH – 24/7)

2. SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008

Health hazards	Serious eye damage/eye irritation, Category 2	H319	Causes serious eye irritation.
	Skin sensitisation, Category 1	H317	May cause an allergic skin reaction.
Environmental hazards	Hazardous to the aquatic environment — Chronic Hazard, Category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008

Hazard pictograms



Signal word

Warning

Contains

Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) ;
Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivs.

Hazard statements

H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

P273 Avoid release to the environment.
P280 Wear protective gloves, eye protection.

Response

P333+P313 If skin irritation or rash occurs: Get medical advice/attention
P337+P313 If eye irritation persists: Get medical advice/attention
P362+P364 Take off contaminated clothing and wash it before reuse
P391 Collect spillage

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII.

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII.

3. SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical name	CAS- No EC- No Index No RRN	%	Classification according to Regulation (EC) No. 1272/2008	Notes
Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)	N/A 931-384-6 01-2119493620-38-XXXX	1 -< 3	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 2, H411	(50 <C <= 100) Eye Dam. 1, H318 UVCB
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	1213789-63-9 627-034-4 01-2119473797-19-XXXX	0,1 -< 1	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)	UVCB
Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivs.	N/A 939-460-0 01-2119971727-23-XXXX	0,1 -< 1	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412	UVCB

UVCB: Substances of Unknown or Variable composition, Complex reaction products or Biological materials

Full text of H-statements: see section 16

4. SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Discard contaminated clothing.
Inhalation	Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
Skin contact:	Wash skin with plenty of water and soap. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
Eyes contact	Consult an ophthalmologist if irritation persists. Remove contact lenses, if present and easy to do. Continue rinsing. Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum).
Ingestion	Rinse mouth out with water. Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after skin contact	May cause an allergic skin reaction.
Symptoms/effects after eye contact	Causes serious eye damage.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	carbon dioxide (CO ₂), powder, water spray. For large fire: Alcohol-resistant foam.
Unsuitable extinguishing media	Do not use a water jet since it may cause the fire to spread.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products	During fire, gases hazardous to health may be formed. Carbon oxides (CO, CO ₂).
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5.3. Advice for firefighters

Firefighting instructions	In case of fire: stop leak if safe to do so. Cool containers exposed to heat with water spray and remove container, if no risk is involved. Prevent runoff from entering water courses, sewers and basements.
Protection during firefighting	Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

6. SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	Do not touch or walk on the spilled product. If spilled, may cause the floor to be slippery.
For non-emergency personnel	
Protective equipment	For personal protection, see section 8 of the SDS.
Emergency procedures	Avoid contact with skin, eyes and clothing. Avoid breathing dust, mist or spray. Do not attempt to take action without suitable protective equipment.
For emergency responders	
Protective equipment	Keep unnecessary personnel away. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment.

6.3. Methods and material for containment and cleaning up

For containment Contain and dispose of waste according to local regulations.
Methods for cleaning up Small spills: Clean surface thoroughly to remove residual contamination. Wipe up with absorbent material (e.g. cloth, fleece). Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Never return spills in original containers for re-use.
Other information The product is immiscible with water and will spread on the water surface.

6.4. Reference to other sections For further information refer to section 8: "Exposure controls/personal protection". For disposal of residues refer to section 13 : " Disposal considerations".

7. SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling Do not empty into drains. Do not get in eyes, on skin, or on clothing. 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.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions Keep container tightly closed. Keep out of reach of children.
Incompatible products Strong acids. Strong bases. Strong oxidizing agent.
Incompatible materials Heat sources.

7.3. Specific end use(s) Transmission, Axle and Power Steering Fluids.

8. SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Contains no substances with occupational exposure limits.

DNEL: Derived no effect level

No data available

Components	Type	Route	Value	Form
Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) (N/A)	Worker	Dermal	12.5 mg/kg bodyweight/day	Long-term - systemic effects
		Inhalation	8.56 mg/m ³	Long-term - systemic effects
	Consumer	Dermal	0.024 mg/cm ²	Acute - local effects
		Oral	0.25 mg/kg bodyweight/day	Long-term - systemic effects
		Inhalation	2.2 mg/m ³	Long-term - systemic effects
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines (1213789-63-9)	Worker	Inhalation	1 mg/m ³	Acute - local effects
		Inhalation	0.38 µg/m ³	Long-term - systemic effects
		Inhalation	1 mg/m ³	Long-term - local effects
	Consumer	Oral	40 µg/kg bw/day	Long-term - systemic effects
		Inhalation	0.035 mg/m ³	Long-term - systemic effects
Reaction product of 1,3,4-thiadiazolidine-2,5-dithione,	Worker	Dermal	66.7 mg/kg bodyweight/day	Long-term - systemic effects
		Inhalation	2.35 mg/m ³	Long-term - systemic effects

formaldehyde and phenol, heptyl derivs. (N/A)	Consumer	Oral	0.33 mg/kg bodyweight/day	Long-term - systemic effects
		Inhalation	0.58 mg/m ³	Long-term - systemic effects
		Dermal	33.33 mg/kg bodyweight/day	Long-term - systemic effects

PNEC: Predicted no effect concentration

No data available

Components	Type	Route	Value	Form
Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) (N/A)	Not applicable	Freshwater	0.001 mg/l	
		Seawater	0.12 µg/L	
		Freshwater	0.085 mg/l	Intermittent release
		sediment	14.4 mg/kg dwt	Freshwater
		sediment	1.44 mg/kg dwt	Seawater
		Soil	2.94 mg/kg dwt	
		Oral	10 mg/kg food	Secondary Poisoning
		STP	24.33 mg/l	
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines (1213789-63-9)	Not applicable	Freshwater	0.26 µg/L	
		Seawater	0.026 µg/L	
		Freshwater	1.26 µg/L	Intermittent release
		sediment	3.76 mg/kg dwt	Freshwater
		sediment	0.376 mg/kg dwt	Seawater
		Soil	10 mg/kg dwt	
		STP	550 µg/L	
Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivs. (N/A)	Not applicable	Freshwater	0.026 mg/l	
		Seawater	0.003 mg/l	
		Freshwater	0.26 mg/l	Intermittent release
		sediment	1108.6 mg/kg dwt	Freshwater
		sediment	110.86 mg/kg dwt	Seawater
		Soil	221.48 mg/kg dwt	
		Oral	6.7 mg/kg food	Secondary Poisoning
		STP	45.5 mg/l	

8.2. Exposure controls

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level

Materials for protective clothing

Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment

Individual protection measures, such as personal protective equipment (PPE)

Eye protection

EN 166. If skin or eye contact with the product is probable, protective glasses with side shield are recommended

Skin protection

Hand protection

Protective gloves. EN 374. The recommendation is only valid for the supplied product and the stated application. Special working conditions, like heat or mechanical strain, which deviate from the test conditions, can reduce the protective effect provided by the recommended glove

Material	Permeation	Thickness (mm)	Comments
Nitrile rubber (NBR)	6 (> 480 minutes)		Glove recommendation: Camatril Velours® 730 (Kächele-Cama GmbH, source of supply see www.kcl.de) or comparable product.
In case of splash contact: Nitrile rubber (NBR)	6 (> 480 minutes)		Glove recommendation: Camatril Velours® 730 (Kächele-Cama GmbH, source of supply see www.kcl.de) or comparable product.

Other protective measures	No additional information available.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment
Skin and body protection	Long sleeved protective clothing
Thermal hazard protection	Wear appropriate thermal protective clothing, when necessary.
Environmental exposure controls	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases.

9. SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Liquid.
Colour	dark brown.
Odour	Characteristic.
Odour threshold	No data available
pH	No data available
Relative evaporation rate (butylacetate=1)	No data available
Melting point	Not applicable
Freezing point	No data available
Boiling point	No data available
Flash point	220 °C
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Flammability (solid, gas)	Not applicable
Vapour pressure	No data available
Relative vapour density at 20 °C	No data available
Relative density	No data available
Density	0.91 g/cm ³ @ 15°C
Solubility	No data available
Log Pow	No data available
Viscosity, kinematic	184 mm ² /s @ 40°C
Viscosity, dynamic	No data available
Explosive properties	No data available
Oxidising properties	No data available
Explosive limits	No data available

9.2. Other information

VOC (EU)	0 %
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10. SECTION 10: Stability and reactivity

10.1. Reactivity	The product is non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Stable under normal conditions. Hazardous polymerisation: No polymerization.
10.3. Possibility of hazardous reactions	No dangerous reactions known under normal conditions of use.
10.4. Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources.
10.5. Incompatible materials	Strong alkalis. Strong acids. Strong oxidizers.

10.6. Hazardous decomposition products During fire, gases hazardous to health may be formed. Carbon oxides (CO, CO₂).

11. SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity Based on available data, the classification criteria are not met.

Mixture

Name	Method	Type	Exposure route	Value	Unit	Species	Remarks
Rear Axle Oil SAE 90	(calculated value)	ATE	oral	> 2000	mg/kg		

Substance

Name	Method	Type	Exposure route	Value	Unit	Species	Remarks
Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) (N/A)	(OECD 401 method)	LD50	oral	2000	mg/kg bw	rat	
(Z)-octadec-9-enylamine, C16-18- (even numbered, saturated and unsaturated)-alkylamines (1213789-63-9)	(OECD 401 method)	LD50	oral	1200	mg/kg bw	rat	

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eye damage/irritation Causes serious eye irritation.

Respiratory or skin sensitisation May cause an allergic skin reaction.

Germ cell mutagenicity Based on available data, the classification criteria are not met

Carcinogenicity Based on available data, the classification criteria are not met

Reproductive toxicity Based on available data, the classification criteria are not met

STOT-single exposure Based on available data, the classification criteria are not met

STOT-repeated exposure Based on available data, the classification criteria are not met

Aspiration hazard Based on available data, the classification criteria are not met

12. SECTION 12: Ecological information

12.1. Toxicity

Ecology - general Toxic to aquatic life with long lasting effects.

Acute aquatic toxicity

Substance / Product	Trophic level	Species	Type	Value	Duration	Remarks
(Z)-octadec-9-enylamine, C16-18- (even numbered, saturated and unsaturated)-alkylamines (1213789-63-9)	Fish	Pimephales promelas	LC50	0,06 mg/L	96 hr	
	crustacea	Daphnia magna	EC50	0,32 mg/L	48 h	(OECD 202 method)
Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivs. (N/A)	Fish	Fish	LL50	~ 24 mg/L	96 h	
	algae	algae	EC50	15 mg/L	96 h	

Chronic aquatic toxicity

Substance / Product	Trophic level	Species	Type	Value	Duration	Remarks
Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) (N/A)	Fish	Oncorhynchus mykiss (Rainbow trout)	NOEC	3,2 mg/l	96 h	
	crustacea	Daphnia magna	NOEC	0,12 mg/l	21 d	
	algae	algae	NOEC	1,7 mg/l	96 h	
(Z)-octadec-9-enylamine, C16-18- (even numbered, saturated and unsaturated)-alkylamines (1213789-63-9)	crustacea	Daphnia magna	NOEC	0,013 mg/L	21 d	(OECD 211 method)

12.2. Persistence and degradability

Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) (N/A)

Biodegradation 3.6 % (28 d, ASTM D-5864 -95)

12.3. Bioaccumulative potential

Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) (N/A)

Log Kow > 6.5 measured

12.4. Mobility in soil

No additional information available.

12.5. Results of PBT and vPvB assessment

Rear Axle Oil SAE 90

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII.

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII.

12.6. Other adverse effects

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this product.

13. SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)

Dispose of in accordance with local regulations.

Waste treatment methods

Collect and reclaim or dispose in closed containers at licensed waste disposal site. Avoid discharge into drains, water courses or onto the ground. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. 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).

Sewage disposal recommendations

Do not pierce or burn, even after use.

Product/Packaging disposal recommendations

Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials

Avoid discharge into drains, water courses or onto the ground.

European List of Waste (LoW) code

13 02 05*

The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
mineral-based non-chlorinated engine, gear and lubricating oils

14. SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR)	3082
UN-No. (IMDG)	3082
UN-No. (IATA)	3082
UN-No. (ADN)	3082
UN-No. (RID)	3082

14.2. UN proper shipping name

Proper Shipping Name (ADR)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) ; (Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines)
Proper Shipping Name (IMDG)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) ; (Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines)
Proper Shipping Name (IATA)	Environmentally hazardous substance, liquid, n.o.s. (Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) ; (Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines)
Proper Shipping Name (ADN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) ; (Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines)
Proper Shipping Name (RID)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) ; (Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines)

14.3. Transport hazard class(es)**ADR**

Transport hazard class(es) (ADR)	9
Danger labels (ADR)	9

IMDG

Transport hazard class(es) (IMDG)	9
Danger labels (IMDG)	9

IATA

Transport hazard class(es) (IATA)	9
Hazard labels (IATA)	9

ADN

Transport hazard class(es) (ADN)	9
Danger labels (ADN)	9

RID

Transport hazard class(es) (RID)	9
Danger labels (RID)	9

14.4. Packing group

Packing group (ADR)	III
Packing group (IMDG)	III
Packing group (IATA)	III
Packing group (ADN)	III
Packing group (RID)	III

14.5. Environmental hazards

Dangerous for the environment	Yes
Marine pollutant	Yes
Other information	No supplementary information available.

14.6. Special precautions for user

Overland transport

Classification code (ADR)	M6
Special provisions (ADR)	274, 335, 375, 601
Limited quantities (ADR)	5I
Packing instructions (ADR)	P001, IBC03, LP01, R001
Hazard identification number (Kemler No.)	90
Tunnel restriction code (ADR)	-
EAC code	*3Z

Transport by sea

Special provisions (IMDG)	274, 335, 969
Limited quantities (IMDG)	5 L
Packing instructions (IMDG)	LP01, P001
EmS-No. (Fire)	F-A
EmS-No. (Spillage)	S-F
Stowage category (IMDG)	A

Air transport

PCA Excepted quantities (IATA)	E1
PCA Limited quantities (IATA)	Y964
PCA limited quantity max net quantity (IATA)	30kgG
PCA packing instructions (IATA)	964
PCA max net quantity (IATA)	450L
CAO packing instructions (IATA)	964
CAO max net quantity (IATA)	450L
Special provisions (IATA)	A97, A158, A197
ERG code (IATA)	9L

Inland waterway transport

Classification code (ADN)	M6
Special provisions (ADN)	274, 335, 375, 601
Limited quantities (ADN)	5 L
Carriage permitted (ADN)	T

Rail transport

Classification code (RID)	M6
Special provisions (RID)	274, 335, 375, 601
Packing instructions (RID)	P001, IBC03, LP01, R001
Hazard identification number (RID)	90

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

15. SECTION 15: Regulatory information

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

EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006

Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivs.	3(a) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F
Rear Axle Oil SAE 90 - Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) - (Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines - Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivs.	3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
Rear Axle Oil SAE 90 - Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) - (Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines - Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivs.	3(c) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1
Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivs.	40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.
Contains no substance on the REACH candidate list	
Contains no REACH Annex XIV substances	

VOC (EU)

0 %

Other information, restriction and prohibition regulations

Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended. Directive 94/33/EC on the protection of young people at work, as amended. For details, refer to section 3 and 8. Directive 92/85/EEC on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding as amended.

Seveso Information

E2 Hazardous to the Aquatic Environment in Category Chronic 2

National regulations

No additional information available.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

16. SECTION 16: Other information

Indication of changes

Section 1 - Section 16.

Abbreviations and acronyms

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
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ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
AGW	Occupational exposure limit value
ATE	Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)
BAM	Federal Institute for Materials Research and Testing, Germany
BAT	Maximum permissible concentration of biological working substances.
BCF	Bio-concentration factor.
BLV	Biological limit values
BLV	Biological limit values (BGW, Austria)
BMGV	Biological Monitoring Guidance Value (EH40,UK).
BOD5	Biochemical oxygen demand within 5 days
BOD	Biochemical oxygen demand
bw	Body weight.
calcd.	Calculated
CAS	Chemical Abstract Service.
CEN	European Committee for Standardization
CESIO	European Committee on Organic Surfactants and their Intermediates.
COD	Chemical oxygen demand
CLP	Classification, Labeling and Packaging REGULATION (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures.
CMR	Carcinogenic, Mutagenic or Reproduction Toxic Substances
CSA	Chemical safety assessment
CSR	Chemical Safety Report.
DMEL	Derived Minimum Effect Level.
DNEL	Derived no effect level
EAC	European waste catalogue
EC	European community
EC50	Effective concentration
EINECS	European Inventory of Existing Commercial Chemical Substances.
ELINCS	European List of Notified Chemical Substances.
EN	European norm.
EU	European Union
GLP	Good Laboratory Practice.
GHS	Globally Harmonized System of Classification and Labeling of Chemicals.
GW/VL	Occupational exposure limit value.
GW-kw/VL-cd	Occupational exposure limit value - short term.
GW-M/VL-M	Occupational exposure limit value – "Ceiling".
IATA	International Air Transport Association
IBC code	International Bulk Chemical (Code) (International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk).
ICAO	International Civil Aviation Organization
IC50	Inhibition Concentration 50%.
IECSC	Inventory of Existing Chemical Substances in China.
IMDG	International Maritime Dangerous Goods
ISO	International Standards Organization.
IUPAC	International Union of Pure and Applied Chemistry
LC50	Lethal Concentration 50%.

LCLo	Lowest published lethal concentration.
LD50	Lethal Dose 50%.
LOAEL	Lowest Observed Adverse Effect Level
LOEC	Lowest observable effect concentration.
LOEL	Lowest observable effect level.
LQ	Limited quantities
TRK-Kzw	Threshold limit value - Short-term exposure limit / Technical reference concentration - short-time value, Austria.
MAK-Mow	Maximum allowable workplace concentration – instantaneous value, Austria.
MAK-Tmw, TRK-Tmw	Maximum allowable workplace concentration – daily mean value / Technical standard concentration – daily mean value, Austria.
MAK	Threshold limit values Germany.
MARPOL	International Convention for the Prevention of Pollution from Ships.
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
NOEL	no-observed-effect level
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limits
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
POCP	Photochemical ozone creation potential.
POP	Persistent Organic Pollutants
PPE	Personal protective equipment
REACH	Registration, Evaluation and Authorization of Chemicals (REGULATION (EC) No 1907/2006 concerning Registration, Evaluation Authorization and Restriction of Chemicals).
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SCL	Specific concentration limit.
STEL	Short-term Exposure Limit
STP	Sewage treatment plant
SVHC	Substance of Very High Concern.
TLV	Threshold Limit Value
TRGS	Technical Rules for Hazardous Substances (German Standard).
TWA	Time Weighted Average
UVCB	Substances of Unknown or Variable composition, Complex reaction products or Biological materials
VbF	Ordinance on Flammable Liquids, Austria
VOC	Volatile organic compounds
vPvB	Very Persistent and Very Bioaccumulative
WEL-TWA	Workplace Exposure Limit-Long term exposure limit (8-hour TWA(=time weighted average)reference period).
WEL-STEL	Workplace Exposure Limit-Short term exposure limit (15-minute reference period).
Data sources	REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006..
Full text of H- and EUH-statements	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4.

Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1.
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1.
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2.
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3.
Asp. Tox. 1	Aspiration hazard, Category 1.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1.
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2.
Flam. Liq. 3	Flammable liquids, Category 3.
Skin Corr. 1B	Skin corrosion/irritation, Category 1B.
Skin Irrit. 2	Skin corrosion/irritation, Category 2.
Skin Sens. 1	Skin sensitisation, Category 1.
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2.
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
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.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Eye Irrit. 2	H319	
Skin Sens. 1	H317	Calculation method
Aquatic Chronic 2	H411	Calculation method

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

Attachment to the Safety Data Sheet



Product Name: Rear Axle Oil SAE 90

Ford Int. Ref. No.: 108289

REVISION DATE: 03.04.2019

Involved Products:

Finiscode	Part number	Container Size:
1 1 781 300	2L5J M2C9102 AB	1 l