

SAFETY DATA SHEET

Valvoline™ LIGHT & HD AXLE OIL 80W90 Gear Oil

Version: 11.0

Revision Date: 24.09.2021

Print Date: 07/07/2022

Conforms to EU Regulation 1907/2006/EC as amended. - SDSGHS_GB

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

1.1 Product identifier

Trade name : Valvoline™ LIGHT & HD AXLE OIL 80W90 Gear Oil

Product code : 868214

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

Recommended use : Engine, gear & lubricating oil.

1.3 Details of the supplier of the safety data sheet

SDS@valvoline.com

1.4 Emergency telephone number

00-800-825-8654 / 001-859-202-3865, or contact your local emergency telephone number at 112

Product Information

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

2.2 Label elements

2.3 Other hazards

Additional advice

No information available.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

Chemical name	CAS-No. EC-No. Registration number	Classification (REGULATION (EC) No 1272/2008)	Concentration (%)
Di-tert-butyl polysulfide	68937-96-2 273-103-3 01-2119540515-43-xxxx		>= 2,50 - < 5,00

SAFETY DATA SHEET

Valvoline™ LIGHT & HD AXLE OIL 80W90 Gear
Oil

Version: 11.0

Revision Date: 24.09.2021

Print Date: 07/07/2022

METHACRYLATE COPOLYMER			>= 1,00 - < 2,50
Amines, C10-14-tert- alkyl	701-175-2		>= 0,10 - < 0,25
(Z)-octadec-9- enylamine, C16-18- (even numbered, saturated and unsaturated)- alkylamines	1213789-63-9 01-2119473797-19-xxxx		>= 0,10 - < 0,25

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : No hazards which require special first aid measures.
- If inhaled : If breathed in, move person into fresh air.
If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.
- In case of eye contact : Remove contact lenses.
Protect unharmed eye.
- If swallowed : Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : No symptoms known or expected.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : No hazards which require special first aid measures.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Water spray
Foam

SAFETY DATA SHEET

Valvoline™ LIGHT & HD AXLE OIL 80W90 Gear
Oil

Version: 11.0

Revision Date: 24.09.2021

Print Date: 07/07/2022

Carbon dioxide (CO₂)
Dry chemical

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : No hazardous combustion products are known

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Specific extinguishing methods : Product is compatible with standard fire-fighting agents.

Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
Comply with all applicable federal, state, and local regulations.

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For further information see Section 8 and Section 13 of the safety data sheet.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Smoking, eating and drinking should be prohibited in the

SAFETY DATA SHEET

Valvoline™ LIGHT & HD AXLE OIL 80W90 Gear
Oil

Version: 11.0

Revision Date: 24.09.2021

Print Date: 07/07/2022

application area.
For personal protection see section 8.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Hygiene measures : General industrial hygiene practice.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Advice on common storage : No materials to be especially mentioned.

Other data : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Engineering measures

General room ventilation should be adequate for normal conditions of use. However, if unusual operating conditions exist, provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Personal protective equipment

Eye protection : Not required under normal conditions of use. Wear splash-proof safety goggles if material could be misted or splashed into eyes.

Skin and body protection : Wear as appropriate:
Safety shoes

Respiratory protection : No personal respiratory protective equipment normally required.

No personal respiratory protective equipment normally required.

SECTION 9: Physical and chemical properties

SAFETY DATA SHEET

Valvoline™ LIGHT & HD AXLE OIL 80W90 Gear
Oil

Version: 11.0

Revision Date: 24.09.2021

Print Date: 07/07/2022

9.1 Information on basic physical and chemical properties

Appearance	: liquid
Colour	: amber
Odour	: oily
Odour Threshold	: No data available
pH	: Not applicable
Pour point	: < -27 °C
Boiling point/boiling range	: No data available
Flash point	: 216 °C Method: Pensky-Martens closed cup
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper explosion limit / Upper flammability limit	: No data available
Lower explosion limit / Lower flammability limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Relative density	: No data available
Density	: 0,88 g/cm ³ (15,6 °C)
Solubility(ies)	
Water solubility	: insoluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Decomposition temperature	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: ca. 132,8 mm ² /s (40 °C)

SAFETY DATA SHEET

Valvoline™ LIGHT & HD AXLE OIL 80W90 Gear
Oil

Version: 11.0

Revision Date: 24.09.2021

Print Date: 07/07/2022

Oxidizing properties : No data available

9.2 Other information

Self-ignition : No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Product will not undergo hazardous polymerization.

10.4 Conditions to avoid

Conditions to avoid : None known.

10.5 Incompatible materials

Materials to avoid : Strong oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition products : No hazardous decomposition products are known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Information on likely routes of exposure : Inhalation
Skin contact
Eye Contact
Ingestion

Acute toxicity

Components:

OLEFINSULFIDE:

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 401
Assessment: The substance or mixture has no acute oral toxicity
Remarks: No mortality observed at this dose.

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg

SAFETY DATA SHEET

Valvoline™ LIGHT & HD AXLE OIL 80W90 Gear
Oil

Version: 11.0

Revision Date: 24.09.2021

Print Date: 07/07/2022

Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: No mortality observed at this dose.

Components:

Amines, C10-14-tert-alkyl:

Acute oral toxicity : LD50 Oral (Rat, male and female): 612 mg/kg
Method: OECD Test Guideline 401
GLP: yes
Assessment: The component/mixture is classified as acute oral toxicity, category 4.

Acute inhalation toxicity : LC50 (Rat, male and female): Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403
GLP: yes
Assessment: The component/mixture is classified as acute inhalation toxicity, category 2.

Acute dermal toxicity : LD50 (Rat, male and female): 251 mg/kg
Method: OECD Test Guideline 402
GLP: yes
Assessment: The component/mixture is classified as acute dermal toxicity, category 3.

Components:

(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines:

Acute oral toxicity : LD50 (Rat): 1.689 mg/kg
Method: OECD Test Guideline 401
Remarks: Information given is based on data obtained from similar substances.

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 402
Remarks: No mortality observed at this dose.
Information given is based on data obtained from similar substances.

Skin corrosion/irritation

Components:

OLEFINSULFIDE:

Result: Mild skin irritation

METHACRYLATE COPOLYMER:

Result: No skin irritation

Amines, C10-14-tert-alkyl:

Species: Rabbit
Result: Corrosive after 3 minutes to 1 hour of exposure

SAFETY DATA SHEET

Valvoline™ LIGHT & HD AXLE OIL 80W90 Gear
Oil

Version: 11.0

Revision Date: 24.09.2021

Print Date: 07/07/2022

GLP: **yes**

(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines:

Species: **Rabbit**

Result: **Corrosive after 3 minutes to 1 hour of exposure**

Remarks: **Information given is based on data obtained from similar substances.**

Serious eye damage/eye irritation

Product:

Remarks: Unlikely to cause eye irritation or injury.

Components:

OLEFINSULFIDE:

Result: **Slight, transient irritation**

METHACRYLATE COPOLYMER:

Result: **Irritating to eyes.**

Amines, C10-14-tert-alkyl:

Species: **Rabbit**

Method: **No information available.**

Result: **Corrosive**

GLP: **yes**

(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines:

Species: **Rabbit**

Result: **Corrosive**

Remarks: **Information given is based on data obtained from similar substances.**

Respiratory or skin sensitisation

Product:

Assessment: Does not cause skin sensitisation.

Components:

OLEFINSULFIDE:

Test Type: **Maximisation Test**

Species: **Guinea pig**

Assessment: **The product is a skin sensitiser, sub-category 1B.**

Method: **OECD Test Guideline 406**

Amines, C10-14-tert-alkyl:

Test Type: **Buehler Test**

Exposure routes: **Dermal**

Species: **Guinea pig**

Assessment: **The product is a skin sensitiser, sub-category 1A.**

Method: **Buehler Test**

GLP: **yes**

SAFETY DATA SHEET

Valvoline™ LIGHT & HD AXLE OIL 80W90 Gear
Oil

Version: 11.0

Revision Date: 24.09.2021

Print Date: 07/07/2022

(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines:

Assessment: Does not cause skin sensitisation.

Remarks: Information given is based on data obtained from similar substances.

Germ cell mutagenicity

Components:

OLEFINSULFIDE:

Genotoxicity in vitro : Test Type: in vitro assay
Result: Positive results were obtained in some in vitro tests.

Genotoxicity in vivo : Test Type: Micronucleus test
Test species: Mouse
Cell type: Bone marrow
Method: OECD Test Guideline 474
Result: negative

(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines:

Genotoxicity in vitro : Test Type: Ames test
Test species: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Result: negative
Remarks: Information given is based on data obtained from similar substances.

Carcinogenicity

Reproductive toxicity

STOT - single exposure

Components:

(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines:

Exposure routes: Inhalation

Target Organs: Respiratory Tract

Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

STOT - repeated exposure

Components:

(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines:

Exposure routes: Ingestion

Target Organs: Liver, Immune system, Gastro-intestinal system

Assessment: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

Aspiration toxicity

Components:

(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines:

SAFETY DATA SHEET

Valvoline™ LIGHT & HD AXLE OIL 80W90 Gear
Oil

Version: 11.0

Revision Date: 24.09.2021

Print Date: 07/07/2022

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

Further information

Product:

Remarks: No data available

SECTION 12: Ecological information

12.1 Toxicity

Components:

Di-tert-butyl polysulfide

Ecotoxicology Assessment

Short-term (acute) aquatic hazard : Harmful to aquatic life.

Long-term (chronic) aquatic hazard : Harmful to aquatic life with long lasting effects.

Amines, C10-14-tert-alkyl

Ecotoxicology Assessment

Short-term (acute) aquatic hazard : Very toxic to aquatic life.

Acute aquatic toxicity Category 1; Very toxic to aquatic life.

Long-term (chronic) aquatic hazard : Very toxic to aquatic life with long lasting effects.

Chronic aquatic toxicity Category 1; Very toxic to aquatic life with long lasting effects.

(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines

Toxicity to fish : LC50 (Fish): estimated 0,06 mg/l
Exposure time: 96 h
Remarks: Information given is based on data obtained from similar substances.

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,98 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202
Remarks: Information given is based on data obtained from similar substances.

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): 0,083 mg/l
End point: Growth inhibition
Exposure time: 72 h

SAFETY DATA SHEET

Valvoline™ LIGHT & HD AXLE OIL 80W90 Gear
Oil

Version: 11.0

Revision Date: 24.09.2021

Print Date: 07/07/2022

	Test Type: static test
	Method: OECD Test Guideline 201
	Remarks: Information given is based on data obtained from similar substances.
M-Factor (Short-term (acute) aquatic hazard)	: 10
M-Factor (Long-term (chronic) aquatic hazard)	: 10

12.2 Persistence and degradability

Components:

Di-tert-butyl polysulfide

Biodegradability	: Result: Not readily biodegradable.
	Biodegradation: 13 %
	Exposure time: 28 d
	Method: OECD Test Guideline 301B

(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines

Biodegradability	: Result: Readily biodegradable.
	Biodegradation: 66 %
	Exposure time: 28 d
	Method: Regulation (EC) No. 440/2008, Annex, C.4-C
	Remarks: Information given is based on data obtained from similar substances.

12.3 Bioaccumulative potential

Components:

Amines, C10-14-tert-alkyl

Partition coefficient: n-octanol/water	: log Pow: 2,9 (20 °C)
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(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines

Partition coefficient: n-octanol/water	: log Pow: estimated 6 - 8
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12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Not relevant

12.6 Other adverse effects

Product:

Additional ecological information	: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Harmful to aquatic life with long lasting effects.
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SAFETY DATA SHEET

Valvoline™ LIGHT & HD AXLE OIL 80W90 Gear
Oil

Version: 11.0

Revision Date: 24.09.2021

Print Date: 07/07/2022

SECTION 13: Disposal considerations

13.1 Waste treatment methods

- Product : The product should not be allowed to enter drains, water courses or the soil.
- Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14: Transport information

14.1 UN number

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

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

Not applicable for product as supplied.

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15: Regulatory information

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

The components of this product are reported in the following inventories:

DSL : All components of this product are on the Canadian DSL

AICS : On the inventory, or in compliance with the inventory

SAFETY DATA SHEET

Valvoline™ LIGHT & HD AXLE OIL 80W90 Gear
Oil

Version: 11.0

Revision Date: 24.09.2021

Print Date: 07/07/2022

ENCS	:	Not in compliance with the inventory
KECI	:	On the inventory, or in compliance with the inventory
PICCS	:	On the inventory, or in compliance with the inventory
IECSC	:	On the inventory, or in compliance with the inventory
TCSI	:	On the inventory, or in compliance with the inventory
TSCA	:	On TSCA Inventory

Inventories

AIIC (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TECI (Thailand), TSCA (USA)

15.2 Chemical safety assessment

No data available

SECTION 16: Other information

Further information

Internal information : R0524399

Full text of H-Statements

Other information : The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Valvoline's Environmental Health and Safety Department ('+31 (0)78 654 3500).

Sources of key data used to compile the Safety Data Sheet

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :

ACGIH : American Conference of Industrial Hygienists

SAFETY DATA SHEET

Valvoline™ LIGHT & HD AXLE OIL 80W90 Gear
Oil

Version: 11.0

Revision Date: 24.09.2021

Print Date: 07/07/2022

BEI : Biological Exposure Index
CAS : Chemical Abstracts Service (Division of the American Chemical Society).
CMR : Carcinogenic, Mutagenic or Toxic for Reproduction
FG : Food grade
GHS : Globally Harmonized System of Classification and Labeling of Chemicals.
H-statement : Hazard Statement
IATA : International Air Transport Association.
IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO : International Civil Aviation Organization
ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization"
IMDG : International Maritime Code for Dangerous Goods
ISO : International Organization for Standardization
logPow : octanol-water partition coefficient
LCxx : Lethal Concentration, for xx percent of test population
LDxx : Lethal Dose, for xx percent of test population.
ICxx : Inhibitory Concentration for xx of a substance
Ecxx : Effective Concentration of xx
N.O.S.: Not Otherwise Specified
OECD : Organization for Economic Co-operation and Development
OEL : Occupational Exposure Limit
P-Statement : Precautionary Statement
PBT : Persistent , Bioaccumulative and Toxic
PPE : Personal Protective Equipment
STEL : Short-term exposure limit
STOT : Specific Target Organ Toxicity
TLV : Threshold Limit Value
TWA : Time-weighted average
vPvB : Very Persistent and Very Bioaccumulative
WEL : Workplace Exposure Level

ABM : Water Hazard Class for the Netherlands
ADR : Agreement concerning the International Carriage of Dangerous Goods by Road.
ADNR: Regulation for the Carriage of Dangerous Substances on the Rhine
CLP : Classification, Labelling and Packaging
CSA : Chemical Safety Assessment
CSR : Chemical Safety Report
DNEL : Derived No Effect Level.
EINECS : European Inventory of Existing Commercial Chemical Substances.
ELINCS : European List of Notified Chemical Substances
PEC : Predicted Effect Concentration
PEL : Permissible Exposure Limits
PNEC : Predicted No Effect Concentration
R-pharse : Risk phrase
REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals
RID : Regulation Concerning the International Transport of Dangerous Goods by Rail
S-pharse: Safety phrase
WGK : German Water Hazard Class