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™ HYBRID ATF SYNTHETIC BLEND ATF

Product code : 892451

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	1.4 Emergency telephone number
Ellis Enterprises B.V., an affiliate of Valvoline Wieldrechtseweg 39 3316 BG Dordrecht Netherlands +31 (0)78 654 3500 (in the Netherlands), or contact your local CSR contact person SDS@valvoline.com	00-800-825-8654 / 001-859-202-3865, or contact your local emergency telephone number at 112 **Product Information** +31 (0)78 654 3500 (in the Netherlands), or contact your local CSR contact person

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Long-term (chronic) aquatic hazard, Category 3	H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard statements : H412 Harmful to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**

P273	Avoid release to the environment.
Disposal:	
P501	Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
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 (%)
Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based	72623-87-1 276-738-4 01-2119474889-13-xxxx	Asp. Tox.1; H304	>= 25,00 - < 40,00
DECENE-1 HOMOPOLYMER HYDROGENATED	68037-01-4 01-2119486452-34-xxxx	Asp. Tox.1; H304	>= 5,00 - < 10,00
METHACRYLATE COPOLYMER		Eye Irrit.2; H319	>= 1,00 - < 2,50
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	72623-86-0 276-737-9	Asp. Tox.1; H304	>= 1,00 - < 2,50
Distillates (petroleum), hydrotreated light paraffinic	64742-55-8 265-158-7 01-2119487077-29-xxxx	Asp. Tox.1; H304	>= 1,00 - < 2,50
Thiophene, tetrahydro-, 1,1-dioxide, 3-(C9-11-isoalkyloxy) derivs., C10-rich	398141-87-2 800-172-4 01-2119969520-35-xxxx	Aquatic Chronic2; H411	>= 1,00 - < 2,50
dimantine	124-28-7	Acute Tox.4; H302 Skin Corr.1B; H314 Eye Dam.1; H318	>= 0,10 - < 0,25

		Aquatic Acute1; H400 Aquatic Chronic1; H410	
2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol	1218787-32-6 620-540-6 01-2119510877-33-xxxx	Acute Tox.4; H302 Skin Corr.1C; H314 Eye Dam.1; H318 Aquatic Acute1; H400 Aquatic Chronic2; H411	>= 0,10 - < 0,25
3-((C9-11-iso,C10-rich)alkyloxy)propan-1-amine	939-485-7 01-2119974116-35-xxxx	Acute Tox.4; H302 Skin Corr.1B; H314 Eye Dam.1; H318 Aquatic Acute1; H400 Aquatic Chronic1; H410	>= 0,025 - < 0,10
2-(2-Heptadec-8-enyl-2-imidazolin-1-yl)ethanol	95-38-5 202-414-9 01-2119777867-13-xxxx	Acute Tox.4; H302 Skin Corr.1C; H314 Eye Dam.1; H318 STOT RE2; H373 Aquatic Acute1; H400 Aquatic Chronic1; H410	>= 0,025 - < 0,10

For explanation of abbreviations see section 16.

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 symptoms persist, call a physician.
If unconscious, place in recovery position and seek medical advice.
If breathed in, move person into fresh air.

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 : Protect unharmed eye.
Remove contact lenses.

If swallowed : If symptoms persist, call a physician.
Never give anything by mouth to an unconscious person.
Do not give milk or alcoholic beverages.

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 : Dry chemical
Carbon dioxide (CO2)
Foam
Water spray
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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.
If product is heated above its flash point it will produce vapors sufficient to support combustion. Vapors are heavier than air and may travel along the ground and be ignited by heat, pilot lights, other flames and ignition sources at locations near the point of release.

Hazardous combustion products : carbon dioxide and carbon monoxide

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

6.3 Methods and material for containment and cleaning up

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

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	:	For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area.
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.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

2-(2-Heptadec-8-enyl-2-imidazolin-1-yl)ethanol : End Use: Workers
Exposure routes: Inhalation
Potential health effects: Long-term systemic effects
Value: 0,46 mg/m3RD TOX - Repeated dose toxicity
End Use: Workers
Exposure routes: Inhalation
Potential health effects: Acute systemic effects
Value: 14 mg/m3RD TOX - Repeated dose toxicity
End Use: Workers
Exposure routes: Dermal
Potential health effects: Long-term systemic effects
Value: 0,06 mg/kgRD TOX - Repeated dose toxicity
End Use: Workers
Exposure routes: Dermal
Potential health effects: Acute systemic effects
Value: 2 mg/kgRD TOX - Repeated dose toxicity

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

2-(2-Heptadec-8-enyl-2-imidazolin-1-yl)ethanol : Sewage treatment plant
Value: 0,27 mg/l
Fresh water sediment
Value: 0,376 mg/kg
Marine sediment
Value: 0,0376 mg/kg
Soil
Value: 0,075 mg/kg

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	:	Safety shoes Wear as appropriate:
Respiratory protection	:	No personal respiratory protective equipment normally required. No personal respiratory protective equipment normally required.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	liquid
Colour	:	amber
Odour	:	oily
Odour Threshold	:	No data available
pH	:	Not applicable
Melting point/freezing point	:	No data available
Boiling point/boiling range	:	No data available
Flash point	:	ca. 178 °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	:	No data available

flammability limit		
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	ca. 0,843 g/cm3 (15,6 °C)
Solubility(ies)		
Water solubility	:	immiscible
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. 37 mm2/s (40 °C) Method: ASTM D 445
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	:	excessive heat

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 : Ingestion
Eye Contact
Skin contact
Inhalation

Acute toxicity

Not classified based on available information.

Components:

Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5,58 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: Not classified as acutely toxic by inhalation under GHS.
Remarks: No mortality observed at this dose.

Acute dermal toxicity : LD50 (Rabbit): > 5.000 mg/kg
Remarks: No mortality observed at this dose.

Components:

DECENE-1 HOMOPOLYMER HYDROGENATED:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5,2 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: No adverse effect has been observed in acute inhalation toxicity tests.

Acute dermal toxicity : LD50 (Rabbit): > 2.000 mg/kg
Assessment: No adverse effect has been observed in acute dermal toxicity tests.

Components:

LUBRICATING OILS, PETROLEUM, C15-30, HYDROTREATED:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5,58 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: Not classified as acutely toxic by inhalation under GHS.
Remarks: No mortality observed at this dose.

Acute dermal toxicity : LD50 (Rabbit): > 5.000 mg/kg
Remarks: No mortality observed at this dose.

Components:

Thiophene, tetrahydro-, 1,1-dioxide, 3-(C9-11-isoalkyloxy) derivs., C10-rich:

Acute oral toxicity : LD50 (Rat): > 10.000 mg/kg

Acute dermal toxicity : LD50 (Rabbit, male): > 4.000 - 8.000 mg/kg
Assessment: No adverse effect has been observed in acute dermal toxicity tests.

Components:

DIMETHYLSTEARYLAMINE:

Acute oral toxicity : LD50 (Rat): 624 mg/kg

Acute dermal toxicity : Remarks: see user defined free text

Components:

2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol:

Acute oral toxicity : LD50 (Rat, female): 1.200 mg/kg
Method: OECD Test Guideline 425

Components:

3-((C9-11-iso,C10-rich)alkyloxy)propan-1-amine:

Acute oral toxicity : LD50 (Rat): 200 - 2.000 mg/kg
Method: OECD Test Guideline 423
Assessment: The component/mixture is classified as acute oral toxicity, category 4.

Components:

OLEYL HYDROXYETHYL IMIDAZOLINE:
Acute oral toxicity : LD50 (Rat): ca. 1.265 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Components:

Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based:
Species: Rabbit
Result: No skin irritation

DECENE-1 HOMOPOLYMER HYDROGENATED:
Species: Rabbit
Result: No skin irritation

METHACRYLATE COPOLYMER:
Result: No skin irritation

LUBRICATING OILS, PETROLEUM, C15-30, HYDROTREATED:
Species: Rabbit
Result: No skin irritation

HYDROTREATED LIGHT PARAFFINIC DISTILLATE:
Result: Slight, transient irritation

DIMETHYLSTEARYLAMINE:
Species: Rabbit
Result: Corrosive to skin

2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol:
Result: Corrosive after 1 to 4 hours of exposure

3-((C9-11-iso,C10-rich)alkyloxy)propan-1-amine:
Species: Rabbit
Method: OECD Test Guideline 404
Result: Corrosive after 3 minutes to 1 hour of exposure

OLEYL HYDROXYETHYL IMIDAZOLINE:
Species: Rabbit
Method: OECD Test Guideline 404
Result: Corrosive after 1 to 4 hours of exposure

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Remarks: Unlikely to cause eye irritation or injury.

Components:

Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based:
Species: Rabbit
Result: No eye irritation

DECENE-1 HOMOPOLYMER HYDROGENATED:
Species: Rabbit
Result: Slight, transient irritation

METHACRYLATE COPOLYMER:
Result: Irritating to eyes.

LUBRICATING OILS, PETROLEUM, C15-30, HYDROTREATED:
Species: Rabbit
Result: No eye irritation

HYDROTREATED LIGHT PARAFFINIC DISTILLATE:
Result: Slight, transient irritation

DIMETHYLSTEARYLAMINE:
Species: Rabbit
Result: Corrosive

OLEYL HYDROXYETHYL IMIDAZOLINE:
Result: Corrosive

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.
Respiratory sensitisation: Not classified based on available information.

Components:

Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based:
Test Type: Buehler Test
Species: Guinea pig
Assessment: Does not cause skin sensitisation.

DECENE-1 HOMOPOLYMER HYDROGENATED:
Test Type: Maximisation Test
Species: Guinea pig
Assessment: Does not cause skin sensitisation.
Method: OECD Test Guideline 406

LUBRICATING OILS, PETROLEUM, C15-30, HYDROTREATED:
Test Type: Buehler Test

Species: Guinea pig
Assessment: Does not cause skin sensitisation.

OLEYL HYDROXYETHYL IMIDAZOLINE:
Species: Guinea pig
Assessment: Does not cause skin sensitisation.
Method: OECD Test Guideline 406

Germ cell mutagenicity

Not classified based on available information.

Components:

DECENE-1 HOMOPOLYMER HYDROGENATED:

Genotoxicity in vitro : Test Type: Ames test
Test species: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Result: negative

Thiophene, tetrahydro-, 1,1-dioxide, 3-(C9-11-isoalkyloxy) derivs., C10-rich:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
Test species: Human lymphocytes
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative

: Test species: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay)
Result: negative

DIMETHYLSTEARYLAMINE:

Genotoxicity in vitro : Test Type: Ames test
Test species: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Result: negative

Carcinogenicity

Not classified based on available information.

Components:

Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based:

Carcinogenicity - Assessment : Classified based on DMSO extract content < 3% (Regulation (EC) 1272/2008, Annex VI, Part 3, Note L)

HYDROTREATED LIGHT PARAFFINIC DISTILLATE:

Carcinogenicity - : Classified based on DMSO extract content < 3% (Regulation

Assessment (EC) 1272/2008, Annex VI, Part 3, Note L)

Reproductive toxicity

Not classified based on available information.

Components:

Thiophene, tetrahydro-, 1,1-dioxide, 3-(C9-11-isoalkyloxy) derivs., C10-rich:

Effects on foetal development : Species: Rat
Strain: Sprague-Dawley
Application Route: Oral
Developmental Toxicity: No observed adverse effect level (Mating/Fertility): >= 600
Method: OECD Test Guideline 421
Result: No effects on fertility and early embryonic development were detected.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Components:

OLEYL HYDROXYETHYL IMIDAZOLINE:
Exposure routes: Ingestion
Target Organs: Gastrointestinal tract, thymus gland
Assessment: May cause damage to organs through prolonged or repeated exposure.

Aspiration toxicity

Not classified based on available information.

Components:

Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based:
May be fatal if swallowed and enters airways.

DECENE-1 HOMOPOLYMER HYDROGENATED:
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.

LUBRICATING OILS, PETROLEUM, C15-30, HYDROTREATED:
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.

May be fatal if swallowed and enters airways.

HYDROTREATED LIGHT PARAFFINIC DISTILLATE:

May be fatal if swallowed and enters airways.

Further information

Product:

Remarks: No data available

SECTION 12: Ecological information

12.1 Toxicity

Components:

Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based

Toxicity to fish	:	LL50 (Pimephales promelas (fathead minnow)): > 100 mg/l Exposure time: 96 h Test Type: static test Test substance: WAF Method: OECD Test Guideline 203 Remarks: No toxicity at the limit of solubility
Toxicity to daphnia and other aquatic invertebrates	:	EL50 (Daphnia magna (Water flea)): > 10.000 mg/l Exposure time: 48 h Test Type: static test Test substance: WAF Method: OECD Test Guideline 202
Toxicity to algae	:	NOEL (Pseudokirchneriella subcapitata (green algae)): >= 100 mg/l End point: Growth inhibition Exposure time: 72 h Test Type: static test Test substance: WAF Method: OECD Test Guideline 201
Toxicity to fish (Chronic toxicity)	:	NOELR: >= 1.000 mg/l Exposure time: 14 d Species: Oncorhynchus mykiss (rainbow trout)
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEL: 10 mg/l Exposure time: 21 d Species: Daphnia (water flea) Test substance: WAF Method: OECD Test Guideline 211

DECENE-1 HOMOPOLYMER HYDROGENATED

Toxicity to fish	:	LL50 (Oncorhynchus mykiss (rainbow trout)): > 1.000 mg/l Exposure time: 96 h Test Type: semi-static test Test substance: WAF
Toxicity to daphnia and other aquatic invertebrates	:	EL50 (Daphnia magna (Water flea)): > 1.000 mg/l Exposure time: 48 h Test Type: static test Test substance: WAF Method: OECD Test Guideline 202
Toxicity to algae	:	EL50 (Scenedesmus capricornutum (fresh water algae)): > 1.000 mg/l End point: Growth inhibition Exposure time: 72 h Test Type: static test Test substance: WAF Method: OECD Test Guideline 201
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOELR: 125 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Test Type: semi-static test Test substance: WAF Method: OECD Test Guideline 211

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based

Toxicity to fish	:	LL50 (Pimephales promelas (fathead minnow)): > 100 mg/l Exposure time: 96 h Test Type: static test Test substance: WAF Method: OECD Test Guideline 203 Remarks: No toxicity at the limit of solubility
Toxicity to daphnia and other aquatic invertebrates	:	EL50 (Daphnia magna (Water flea)): > 10.000 mg/l Exposure time: 48 h Test Type: static test Test substance: WAF Method: OECD Test Guideline 202
Toxicity to algae	:	NOEL (Pseudokirchneriella subcapitata (green algae)): >= 100 mg/l End point: Growth inhibition Exposure time: 72 h Test Type: static test Test substance: WAF Method: OECD Test Guideline 201

Toxicity to fish (Chronic toxicity)	:	NOELR: Calculated >= 1.000 mg/l Exposure time: 14 d Species: Oncorhynchus mykiss (rainbow trout)
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEL: 10 mg/l Exposure time: 21 d Species: Daphnia (water flea) Test substance: WAF Method: OECD Test Guideline 211

Thiophene, tetrahydro-, 1,1-dioxide, 3-(C9-11-isoalkyloxy) derivs., C10-rich

Toxicity to fish	:	(Pimephales promelas (fathead minnow)): 4,2 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 4,6 mg/l Exposure time: 48 h
Toxicity to algae	:	LL50 (Desmodesmus subspicatus (green algae)): 3,5 mg/l End point: Biomass Exposure time: 72 h Test substance: WAF LL50 (Desmodesmus subspicatus (green algae)): 63 mg/l End point: Growth inhibition Exposure time: 72 h Test substance: WAF

dimantine

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 0,18 mg/l Exposure time: 96 h Test Type: static test Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0,51 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202
Toxicity to algae	:	NOEC (Desmodesmus subspicatus (green algae)): 0,00517 mg/l End point: Growth inhibition Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201 ErC50 (Desmodesmus subspicatus (green algae)): 0,00141 mg/l

End point: Growth inhibition
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201

M-Factor (Short-term (acute) aquatic hazard) : 1

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,036 mg/l
Exposure time: 21 d
End point: Reproduction Test
Species: Daphnia (water flea)
Test Type: semi-static test
Method: OECD Test Guideline 211
Remarks: Information given is based on data obtained from similar substances.

M-Factor (Long-term (chronic) aquatic hazard) : 1

2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 0,1 mg/l
Exposure time: 96 h
Test Type: semi-static test
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,043 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): 0,0867 mg/l
End point: Growth inhibition
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201

NOEC (Pseudokirchneriella subcapitata (green algae)): 0,0156 mg/l
Exposure time: 72 h

M-Factor (Short-term (acute) aquatic hazard) : 10

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC50: 0,0463 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)

Test Type: semi-static test
Method: OECD Test Guideline 211

M-Factor (Long-term (chronic) aquatic hazard) : 1

3-((C9-11-iso,C10-rich)alkyloxy)propan-1-amine

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 2,14 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): 0,0827 mg/l
End point: Growth inhibition
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201

M-Factor (Short-term (acute) aquatic hazard) : 10

Ecotoxicology Assessment

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

2-(2-Heptadec-8-enyl-2-imidazolin-1-yl)ethanol

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 0,3 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,163 mg/l
Exposure time: 48 h
Test Type: semi-static test
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): 0,03 mg/l
End point: Growth inhibition
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201

M-Factor (Short-term (acute) aquatic hazard) : 10

M-Factor (Long-term (chronic) aquatic hazard) : 1

12.2 Persistence and degradability

Components:

Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based
Biodegradability : Result: Not readily biodegradable.
Biodegradation: 2 - 4 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

DECENE-1 HOMOPOLYMER HYDROGENATED
Biodegradability : Result: Inherently biodegradable

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based
Biodegradability : Result: Not readily biodegradable.
Biodegradation: 2 - 4 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

Thiophene, tetrahydro-, 1,1-dioxide, 3-(C9-11-isoalkyloxy) derivs., C10-rich
Biodegradability : Result: Not readily biodegradable.
Biodegradation: 9,6 %
Exposure time: 28 d

dimantine
Biodegradability : Result: Readily biodegradable.
Biodegradation: 68 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol
Biodegradability : Inoculum: activated sludge
Concentration: 2,7 mg/l
Result: Readily biodegradable.
Biodegradation: 63 %
Related to: Chemical oxygen demand
Exposure time: 28 d
Method: OECD Test Guideline 301D

3-((C9-11-iso,C10-rich)alkyloxy)propan-1-amine
Biodegradability : Inoculum: activated sludge
Result: Readily biodegradable.
Biodegradation: 68 %
Exposure time: 28 d

2-(2-Heptadec-8-enyl-2-imidazolin-1-yl)ethanol
Biodegradability : Result: Not readily biodegradable.

Biodegradation: 1 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

12.3 Bioaccumulative potential

Components:

DECENE-1 HOMOPOLYMER HYDROGENATED
Partition coefficient: n-octanol/water : log Pow: > 6,5

Thiophene, tetrahydro-, 1,1-dioxide, 3-(C9-11-isoalkyloxy) derivs., C10-rich
Partition coefficient: n-octanol/water : log Pow: 1,19

dimantine
Partition coefficient: n-octanol/water : log Pow: Calculated 5,1

3-((C9-11-iso,C10-rich)alkyloxy)propan-1-amine
Partition coefficient: n-octanol/water : log Pow: -0,34 (25 °C)

2-(2-Heptadec-8-enyl-2-imidazolin-1-yl)ethanol
Partition coefficient: n-octanol/water : log Pow: 8

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

12.6 Other adverse effects

Product:

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

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 containers should be taken to an approved waste handling site for recycling or disposal. Dispose of as unused product. Empty remaining contents.

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

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants	:	Not applicable
REACH - List of substances subject to authorisation (Annex XIV)	:	Not applicable
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable
Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals	:	Not applicable
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)	:	Conditions of restriction for the following entries should be considered: DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC (Number on list 28) (Number on list 28)

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.
Not applicable

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
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	:	Not in compliance with the inventory
TSCA	:	On TSCA Inventory

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

15.2 Chemical safety assessment
No data available

SECTION 16: Other information

Further information
Internal information : 000000277163

Full text of H-Statements

H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H373	May cause damage to organs through prolonged or repeated exposure if swallowed.
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.

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
Valvoline internal data including own and sponsored test reports
The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :
ACGIH : American Conference of Industrial Hygienists
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-phrase : Risk phrase
REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals
RID : Regulation Concerning the International Transport of Dangerous Goods by Rail
S-phrase: Safety phrase
WGK : German Water Hazard Class