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

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

1.1 Product identifier

Trade name : Valvoline™ COLD FLOW IMPROVER

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

Recommended use : Fuels and fuel additives

1.3 Details of the supplier of the safety data sheet 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	1.4 Emergency telephone number 00-800-825-8654 / 001-859-202-3865, or contact your local emergency telephone number at 0 30-1 92 40 Product Information +31 (0)78 654 3500 (in the Netherlands), or contact your local CSR contact person
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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 2	H225: Highly flammable liquid and vapour.
Specific target organ toxicity - single exposure, Category 3, Central nervous system	H336: May cause drowsiness or dizziness.
Aspiration hazard, Category 1	H304: May be fatal if swallowed and enters airways.
Chronic aquatic toxicity, Category 3	H412: Harmful to aquatic life with long lasting effects.

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2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

Hazard statements : H225 Highly flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H336 May cause drowsiness or dizziness.
H412 Harmful to aquatic life with long lasting effects.

Supplemental Hazard Statements : EUH066 Repeated exposure may cause skin dryness or cracking.

Precautionary statements : P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
Prevention:
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331 Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.



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P304 + P340

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P312

Call a POISON CENTER or doctor/physician if you feel unwell.

Disposal:

P501

Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

HYDROCARBONS, C10-C13, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS

Hydrocarbons, C9-C10, n-alkanes, iso-alkanes, cyclics, <2% aromatics

propan-2-ol

HYDROCARBONS, C10, AROMATICS, >1% NAPHTHALENE

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 (%)
HYDROCARBONS, C10-C13, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS	918-481-9 01-2119457273-39-xxxx	Asp. Tox.1; H304	>= 60,00 - < 70,00
Hydrocarbons, C9- C10, n-alkanes, iso- alkanes, cyclics, <2% aromatics	927-241-2 01-2119471843-32-xxxx	Flam. Liq.3; H226 STOT SE3; H336 Asp. Tox.1; H304 Aquatic Chronic3; H412	>= 40,00 - < 50,00
propan-2-ol	67-63-0 200-661-7 01-2119457558-25-xxxx	Flam. Liq.2; H225 Eye Irrit.2; H319 STOT SE3; H336	>= 5,00 - < 10,00
HYDROCARBONS, C10, AROMATICS, >1% NAPHTHALENE	919-284-0 01-2119463588-24-xxxx	STOT SE3; H336 Asp. Tox.1; H304 Aquatic Chronic2; H411	>= 2,50 - < 5,00
Naphthalene	91-20-3	Acute Tox.4; H302	>= 0,50 - < 1,00

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	202-049-5	Carc.2; H351 Aquatic Acute1; H400 Aquatic Chronic1; H410	
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For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice	: Move out of dangerous area. Call a POISON CENTRE or doctor/physician if exposed or you feel unwell. Show this safety data sheet to the doctor in attendance. Symptoms of poisoning may appear several hours later. Do not leave the victim unattended.
If inhaled	: Move to fresh air. If unconscious, place in recovery position and seek medical advice. Consult a physician after significant exposure.
In case of skin contact	: If on skin, rinse well with water. First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water. If on clothes, remove clothes.
In case of eye contact	: Flush eyes with water as a precaution. Remove contact lenses. Protect unharmed eye. If eye irritation persists, consult a specialist.
If swallowed	: Obtain medical attention. Do NOT induce vomiting. 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	: Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea) irritation (nose, throat, airways)
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confusion
 lung edema (fluid buildup in the lung tissue)

Risks : Administration of high doses of isopropanol in combination with known hepatotoxic chemicals resulted in enhanced liver toxicity in experimental animals.
 May be fatal if swallowed and enters airways.
 May cause drowsiness or dizziness.
 Repeated exposure may cause skin dryness or cracking.

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
 Alcohol-resistant foam
 Carbon dioxide (CO₂)
 Dry chemical

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.
 Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
 Do not allow run-off from fire fighting to enter drains or water courses.

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 : Product is compatible with standard fire-fighting agents.

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methods

Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Use a water spray to cool fully closed containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Evacuate personnel to safe areas.
Remove all sources of ignition.
Use personal protective equipment.
Ensure adequate ventilation.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
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.
Suppress (knock down) gases/vapours/mists with a water spray jet.

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 : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

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 : Open drum carefully as content may be under pressure.
Avoid formation of aerosol.
Provide sufficient air exchange and/or exhaust in work rooms.
Do not breathe vapours/dust.

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Do not smoke.
 Container hazardous when empty.
 Take precautionary measures against static discharges.
 Avoid exposure - obtain special instructions before use.
 Smoking, eating and drinking should be prohibited in the application area.
 For personal protection see section 8.
 Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). No sparking tools should be used. Keep away from open flames, hot surfaces and sources of ignition. Use only explosion-proof equipment.

Hygiene measures : Wash hands before breaks and at the end of workday. When using do not eat or drink. When using do not smoke.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. No smoking.

Storage class (TRGS 510) : 3, Flammable liquids

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

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
HYDROCARBONS, C10-C13, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS		AGW	600 mg/m3	D900LV



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Hydrocarbons, C9-C10,n-alkanes, iso-alkanes,cyclics, <2% aromatics		AGW	300 mg/m3	DE TRGS 900
propan-2-ol	67-63-0	AGW	200 ppm 500 mg/m3	DE TRGS 900
HYDROCARBONS, C10, AROMATICS, >1% NAPHTHALENE		AGW	100 mg/m3	DE TRGS 900
Naphthalene	91-20-3	TWA	10 ppm 50 mg/m3	91/322/EEC
		AGW (Vapour and aerosols, inhalable fraction)	0,1 ppm 0,5 mg/m3 Vapour and aerosols, inhalable fraction	DE TRGS 900

Biological occupational exposure limits

Substance name	CAS-No.	Control parameters	Sampling time	Basis
ISOPROPANOL	67-63-0	Acetone: 25 mg/l (Blood)	Immediately after exposure or after working hours	TRGS 903
		Acetone: 25 mg/l (Urine)	Immediately after exposure or after working hours	TRGS 903

8.2 Exposure controls

Engineering measures

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.

Hand protection

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Skin and body protection : Wear as appropriate:
Impervious clothing
Safety shoes
Flame-resistant clothing
Choose body protection according to the amount and

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concentration of the dangerous substance at the work place.

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	: liquid
Colour	: milky
Odour	: characteristic
Odour Threshold	: No data available
pH	: No data available
Melting point/freezing point	: No data available
Boiling point/boiling range	: No data available
Flash point	: 12 °C
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper explosion limit	: 7 %(V)
Lower explosion limit	: 0,5 %(V)
Vapour pressure	: No data available
Relative vapour density	: No data available
Relative density	: No data available
Density	: ca. 0,776 g/cm ³ (20 °C)
Solubility(ies)	
Water solubility	: No data available No data available
Solubility in other solvents	: No data available

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Partition coefficient: n-octanol/water : No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity
Viscosity, dynamic : No data available

Viscosity, kinematic : ca. 7 mm²/s (40 °C)

Oxidizing properties : No data available

9.2 Other information

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 : Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

None known.

10.5 Incompatible materials

Materials to avoid : Acids
Aldehydes
alkalis
Amines
Ethylene oxide
halogenated hydrocarbons
halogens
isocyanates
Strong oxidizing agents
Do not use with aluminum equipment at temperatures above

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49C or 120 degrees F.

10.6 Hazardous decomposition products

Hazardous decomposition : carbon dioxide and carbon monoxide products

SECTION 11: Toxicological information

11.1 Information on toxicological effects

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

Acute toxicity

Not classified based on available information.

Components:

HYDROCARBONS, C10-C13, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS:

Acute oral toxicity	: LD50 (Rat): > 5.000 mg/kg Method: OECD Test Guideline 401 Remarks: Information given is based on data obtained from similar substances.
Acute inhalation toxicity	: LD50 (Rat): > 5.000 mg/m3 Exposure time: 8 h Method: OECD Test Guideline 403
Acute dermal toxicity	: LD50 (Rabbit): >= 3.160 mg/kg Method: OECD Test Guideline 402 Assessment: Not classified as acutely toxic by dermal absorption under GHS.

Components:

Hydrocarbons, C9-C10,n-alkanes, iso-alkanes,cyclics, <2% aromatics:

Acute oral toxicity	: LD50 (Rat): > 5.000 mg/kg Remarks: Information given is based on data obtained from similar substances.
Acute inhalation toxicity	: LC50 (Rat): > 5,0 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Assessment: No adverse effect has been observed in acute inhalation toxicity tests.

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

Acute dermal toxicity

: LD50 (Rabbit): ≥ 3.160 mg/kg
Method: OECD Test Guideline 402
Assessment: Not classified as acutely toxic by dermal absorption under GHS.
Remarks: No mortality observed at this dose.
Information given is based on data obtained from similar substances.

Components:
ISOPROPANOL:

Acute oral toxicity

: LD50 (Rat): 5,84 g/kg

Acute inhalation toxicity

: LC50 (Rat): 16000 ppm
Exposure time: 4 h
Test atmosphere: vapour

Acute dermal toxicity

: LD50 (Rabbit): 12.800 mg/kg

Components:
NAPHTHALENE:

Acute oral toxicity

: LD50 (Mouse, male): 533 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity

: LC50 (Rat): $> 0,4$ mg/l
Exposure time: 4 h
Test atmosphere: vapour
Assessment: Not classified as acutely toxic by inhalation under GHS.

Acute dermal toxicity

: LD50 (Rabbit): $> 2,0$ g/kg

LD50 (Rat, male and female): > 2.500 mg/kg
Assessment: Not classified as acutely toxic by dermal absorption under GHS.

Acute toxicity (other routes of administration)

: LD50 (Mouse, female): 710 mg/kg
Application Route: Gavage

LD50 (Mouse): 150 mg/kg
Application Route: Intraperitoneal

LD50 (Mouse, male): 533 mg/kg
Application Route: Gavage

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Skin corrosion/irritation

Repeated exposure may cause skin dryness or cracking.

Product:

Result: Repeated exposure may cause skin dryness or cracking.

Components:

HYDROCARBONS, C10-C13, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS:

Result: No skin irritation

Result: Repeated exposure may cause skin dryness or cracking.

Hydrocarbons, C9-C10, n-alkanes, iso-alkanes, cyclics, <2% aromatics:

Species: Rabbit

Method: OECD Test Guideline 404

ISOPROPANOL:

Result: Slight, transient irritation

NAPHTHALENE:

Result: Slight, transient irritation

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Remarks: Unlikely to cause eye irritation or injury.

Components:

HYDROCARBONS, C10-C13, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS:

Result: No eye irritation

Hydrocarbons, C9-C10, n-alkanes, iso-alkanes, cyclics, <2% aromatics:

Species: Rabbit

Method: OECD Test Guideline 405

Result: No eye irritation

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

ISOPROPANOL:

Result: Irritating to eyes.

NAPHTHALENE:

Result: Slight, transient irritation

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

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Components:

HYDROCARBONS, C10-C13, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS:

Assessment: **Did not cause sensitisation on laboratory animals.**

Hydrocarbons, C9-C10,n-alkanes, iso-alkanes,cyclics, <2% aromatics:

Test Type: **Maximisation Test**

Species: **Guinea pig**

Assessment: **Did not cause sensitisation on laboratory animals.**

Method: **OECD Test Guideline 406**

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

Germ cell mutagenicity

Not classified based on available information.

Components:

HYDROCARBONS, C10-C13, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS:

Genotoxicity in vitro : Test Type: **in vitro assay**

Result: **negative**

Hydrocarbons, C9-C10,n-alkanes, iso-alkanes,cyclics, <2% aromatics:

Genotoxicity in vitro : Test Type: **Ames test**

Result: **negative**

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

Carcinogenicity

Not classified based on available information.

Components:

NAPHTHALENE:

Carcinogenicity - Assessment : **Limited evidence of carcinogenicity in inhalation studies with animals.**

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

May cause drowsiness or dizziness.

Components:

Hydrocarbons, C9-C10,n-alkanes, iso-alkanes,cyclics, <2% aromatics:

Assessment: **May cause drowsiness or dizziness.**

ISOPROPANOL:

Assessment: **May cause drowsiness or dizziness.**

HYDROCARBONS, C10, AROMATICS, >1% NAPHTHALENE:

Assessment: **The substance or mixture is classified as specific target organ toxicant, single**

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exposure, category 3 with narcotic effects.

STOT - repeated exposure

Not classified based on available information.

Repeated dose toxicity

Components:

HYDROCARBONS, C10-C13, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS:

Species: Rat

NOAEL: ≥ 1.000 mg/l

Application Route: Oral

Method: OECD Test Guideline 422

Aspiration toxicity

May be fatal if swallowed and enters airways.

Components:

HYDROCARBONS, C10-C13, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS:

May be fatal if swallowed and enters airways.

Hydrocarbons, C9-C10, n-alkanes, iso-alkanes, cyclics, <2% aromatics:

May be fatal if swallowed and enters airways.

HYDROCARBONS, C10, AROMATICS, >1% NAPHTHALENE:

May be fatal if swallowed and enters airways.

Further information

Product:

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting., Concentrations substantially above the TLV value may cause narcotic effects., Solvents may degrease the skin.

Components:

ISOPROPANOL:

Remarks: Central nervous system

SECTION 12: Ecological information

12.1 Toxicity

Components:

HYDROCARBONS, C10-C13, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS

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Toxicity to fish : **LL50 (Oncorhynchus mykiss (rainbow trout))**: > 1.000 mg/l
Exposure time: 96 h
Test Type: semi-static test
Test substance: WAF
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : **EL50 (Water flea (Daphnia magna))**: > 1.000 mg/l
Exposure time: 48 h
Test Type: static test
Test substance: WAF
Method: OECD Test Guideline 202

Toxicity to algae : **EL50 (Pseudokirchneriella subcapitata (green algae))**: > 1.000 mg/l
Exposure time: 72 h
Test Type: static test
Test substance: WAF
Method: OECD Test Guideline 201

Hydrocarbons, C9-C10,n-alkanes, iso-alkanes,cyclics, <2% aromatics

Toxicity to fish : **LL50 (Oncorhynchus mykiss (rainbow trout))**: > 10 - < 30 mg/l
Exposure time: 96 h
Test Type: semi-static test
Test substance: WAF
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : **EL50 (Water flea (Daphnia magna))**: > 22 - < 46 mg/l
Exposure time: 48 h
Test Type: static test
Test substance: WAF
Method: OECD Test Guideline 202

Toxicity to algae : **EL50 (Pseudokirchneriella subcapitata (green algae))**: > 1.000 mg/l
End point: Growth inhibition
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201

Toxicity to fish (Chronic toxicity) : **NOELR**: 0,182 mg/l
Exposure time: 28 d
Species: Oncorhynchus mykiss (rainbow trout)
Method: QSAR

propan-2-ol

Toxicity to fish : **LC50 (Pimephales promelas (fathead minnow))**: 5.770 - 7.450 mg/l
Exposure time: 96 h
Test Type: flow-through test

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Toxicity to daphnia and other aquatic invertebrates : **LC50 (Water flea (Daphnia magna))**: > 10.000 mg/l
Exposure time: 24 h
Test Type: static test

HYDROCARBONS, C10, AROMATICS, >1% NAPHTHALENE

Toxicity to fish : **LL50 (Oncorhynchus mykiss (rainbow trout))**: 2 - 5 mg/l
Exposure time: 96 h
Test Type: semi-static test
Test substance: WAF
Method: OECD Test Guideline 203
Remarks: Information given is based on data obtained from similar substances.

Toxicity to daphnia and other aquatic invertebrates : **EL50 (Water flea (Daphnia magna))**: 10 mg/l
Exposure time: 48 h
Test Type: static test
Test substance: WAF
Method: OECD Test Guideline 202
Remarks: Information given is based on data obtained from similar substances.

Toxicity to algae : **EL50 (Pseudokirchneriella subcapitata (green algae))**: > 1 - 3 mg/l
End point: Growth inhibition
Exposure time: 72 h
Test Type: static test
Test substance: WAF
Method: OECD Test Guideline 201
Remarks: Information given is based on data obtained from similar substances.

Ecotoxicology Assessment

Acute aquatic toxicity : Toxic to aquatic life.

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

Naphthalene

Toxicity to fish : **LC50 (Oncorhynchus mykiss (rainbow trout))**: 0,91 - 2,82 mg/l
Exposure time: 96 h
Test Type: static test

Toxicity to daphnia and other aquatic invertebrates : **EC50 (Water flea (Daphnia magna))**: 1,09 - 3,4 mg/l
Exposure time: 48 h
Test Type: static test

12.2 Persistence and degradability
Components:

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HYDROCARBONS, C10-C13, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS

Biodegradability : Inoculum: **activated sludge**
Result: **Readily biodegradable.**
Biodegradation: **80 %**
Exposure time: **28 d**
Method: **OECD Test Guideline 301F**

Hydrocarbons, C9-C10, n-alkanes, iso-alkanes, cyclics, <2% aromatics

Biodegradability : Result: **Readily biodegradable.**
Biodegradation: **89 %**
Exposure time: **28 d**
Method: **OECD Test Guideline 301F**

HYDROCARBONS, C10, AROMATICS, >1% NAPHTHALENE

Biodegradability : Result: **Inherently biodegradable**

Naphthalene

Biodegradability : Result: **Not readily biodegradable.**

12.3 Bioaccumulative potential

Components:

propan-2-ol

Partition coefficient: n-octanol/water : log Pow: **0,05**

Naphthalene

Partition coefficient: n-octanol/water : log Pow: **3,30**

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.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.

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Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

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.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14: Transport information

SECTION 14: Transport information

14.1 UN number

ADN: Not dangerous goods

ADR: Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: UN1993

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: UN1993

INTERNATIONAL MARITIME DANGEROUS GOODS: UN1993

RID: Not dangerous goods

14.2 UN proper shipping name

ADN: Not dangerous goods

ADR: Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: FLAMMABLE LIQUID, N.O.S.
(Hydrocarbons, C8-C10, n-alkanes, isoalkanes, cyclics, aromatics (2-25%), ISOPROPANOL)

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: FLAMMABLE LIQUID, N.O.S.
(Hydrocarbons, C8-C10, n-alkanes, isoalkanes, cyclics, aromatics (2-25%), ISOPROPANOL)

INTERNATIONAL MARITIME DANGEROUS GOODS: FLAMMABLE LIQUID, N.O.S. (Hydrocarbons, C8-C10, n-alkanes, isoalkanes, cyclics, aromatics (2-25%), ISOPROPANOL)

RID: Not dangerous goods

14.3 Transport hazard class(es)

ADN: Not dangerous goods

ADR: Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: 3

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: 3

INTERNATIONAL MARITIME DANGEROUS GOODS: 3

RID: Not dangerous goods

14.4 Packing group

ADN: Not dangerous goods

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ADR: Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: II

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: II

INTERNATIONAL MARITIME DANGEROUS GOODS: II

RID: Not dangerous goods

14.5 Environmental hazards

ADN: Not applicable

ADR: Not applicable

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: Not applicable

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: Not applicable

INTERNATIONAL MARITIME DANGEROUS GOODS: Not applicable

RID: Not applicable

14.6 Special precautions for user

Not applicable

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Ship Type: Not applicable

Hazard code(s): Not applicable

Pollutant Category: Not applicable

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 : Naphthalene

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Not applicable

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 57). : Not applicable

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Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

P5c	FLAMMABLE LIQUIDS	Quantity 1 5.000 t	Quantity 2 50.000 t
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Water contaminating class (Germany) : WGK 1 slightly water endangering

TA Luft List (Germany) :

- Total dust, Not applicable
- Inorganic substances in powdered form, Not applicable
- Inorganic substances in vapour or gaseous form, Not applicable
- Organic Substances, Class 1 1 %
- Carcinogenic substances, Not applicable
- Mutagenic, Not applicable
- Toxic to reproduction, Not applicable

Other regulations : Young people under 18 years old are not allowed to work with this product according to the EU Directive 94/33/EC on the protection of young people at work.

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

DSL : This product contains one or several components that are not on the Canadian DSL and have annual quantity limits.

AICS Not in compliance with the inventory

ENCS Not in compliance with the inventory

KECI Not in compliance with the inventory

PICCS Not in compliance with the inventory

IECSC Not in compliance with the inventory

TSCA Not On TSCA Inventory

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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

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Full text of H-Statements

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
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.

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.

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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.
 ADN: 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

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S-phrase: Safety phrase
WGK : German Water Hazard Class