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| SAFETY DATA SHEET | | Revision Date: 01.12.2016 |
| | | Print Date: 17.07.2018 |
| | | SDS Number: R0517907 |
| Tectyl® 190 BLACK CORROSION INHIBITOR | | Version: 2.2 |
| VE20000 | | |

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 : Tectyl® 190 BLACK
CORROSION INHIBITOR

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

Recommended use : Solvent-borne coatings

| | |
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| <p>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</p> <p>SDS@valvoline.com</p> | <p>1.4 Emergency telephone number 00-800-825-8654 / 001-859-202-3865, or contact your local emergency telephone number at 112</p> <p>Product Information +31 (0)78 654 3500 (in the Netherlands), or contact your local CSR contact person</p> |
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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

| | |
|--|--|
| Aerosols, Category 1 | H222: Extremely flammable aerosol. |
| | H229: Pressurised container: May burst if heated. |
| Skin irritation, Category 2 | H315: Causes skin irritation. |
| Eye irritation, Category 2 | H319: Causes serious eye irritation. |
| Specific target organ toxicity - single exposure, Category 3, Central nervous system | H336: May cause drowsiness or dizziness. |
| Chronic aquatic toxicity, Category 2 | H411: Toxic 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 : H222 Extremely flammable aerosol.
 H229 Pressurised container: May burst if heated.
 H304 May be fatal if swallowed and enters airways.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H411 Toxic to aquatic life with long lasting effects.

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/sparks/open flames/hot surfaces. No smoking.
 P211 Do not spray on an open flame or other ignition source.
 P251 Do not pierce or burn, even after use.
 P271 Use only outdoors or in a well-ventilated area.
Response:
 P362 + P364 Take off contaminated clothing and wash it before reuse.
Storage:
 P405 Store locked up.
 P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.
Disposal:
 P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:
 Naphtha (petroleum), hydrotreated light

2.3 Other hazards
Additional advice

No information available.

SECTION 3: Composition/information on ingredients
3.2 Mixtures



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Chemical nature : Static Accumulator

Hazardous components

| Chemical name | CAS-No. EC-No. Registration number | Classification (REGULATION (EC) No 1272/2008) | Concentration (%) |
|--|---|--|-----------------------|
| Naphtha (petroleum), hydrotreated light | 64742-49-0 265-151-9 | Flam. Liq.2; H225 Skin Irrit.2; H315 STOT SE3; H336 Asp. Tox.1; H304 Aquatic Chronic2; H411 | >= 15,00 - < 20,00 |
| Solvent naphtha (petroleum), light arom. | 64742-95-6 265-199-0 | Flam. Liq.3; H226 STOT SE3; H336 STOT SE3; H335 Asp. Tox.1; H304 Aquatic Chronic2; H411 | >= 10,00 - < 15,00 |
| Butanone | 78-93-3 201-159-0 | Flam. Liq.2; H225 Eye Irrit.2; H319 STOT SE3; H336 | >= 5,00 - < 10,00 |
| Xylene | 1330-20-7 215-535-7 01-2119488216-32-xxxx | Flam. Liq.3; H226 Acute Tox.4; H332 Acute Tox.4; H312 Skin Irrit.2; H315 STOT SE3; H336 STOT SE3; H335 Asp. Tox.1; H304 Aquatic Chronic3; H412 | >= 5,00 - < 10,00 |
| Ethyl acetate | 141-78-6 205-500-4 01-2119475103-46-xxxx | Flam. Liq.2; H225 Eye Irrit.2; H319 STOT SE3; H336 | >= 3,00 - < 5,00 |
| Cyclohexane | 110-82-7 203-806-2 | Flam. Liq.2; H225 Skin Irrit.2; H315 STOT SE3; H336 Asp. Tox.1; H304 Aquatic Acute1; H400 Aquatic Chronic1; H410 | >= 2,50 - < 5,00 |
| Substances with a workplace exposure limit : | | | |
| dimethyl ether | 115-10-6 204-065-8 01-2119472128-37-0005 | Flam. Gas1; H220 Press. GasLiquefied gas; H280 | >= 25,00 - < 40,00 |


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| | | |
|--------------|------------------------|---------------------|
| Carbon black | 1333-86-4 215-609-9 | >= 1,00 - < 2,50 |
|--------------|------------------------|---------------------|

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.
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 : Remove contaminated clothing. If irritation develops, get medical attention.
If on skin, rinse well with water.
Wash contaminated clothing before re-use.
- In case of eye contact : Immediately flush eye(s) with plenty of water.
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 : Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:
redness of the skin
stomach or intestinal upset (nausea, vomiting, diarrhea)
irritation (nose, throat, airways)
temporary changes in behavior
effects on memory
Shortness of breath
confusion
irregular heartbeat
respiratory failure

Risks :


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Inhalation of high concentrations of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material.

Causes skin irritation.

Causes serious eye irritation.

May cause drowsiness or dizziness.

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
Hydrocarbons
Nitrogen oxides (NO_x)
Sulphur oxides
Aldehydes
sulfur oxides

5.3 Advice for firefighters

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


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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.
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
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.
Provide sufficient air exchange and/or exhaust in work rooms.
Do not breathe vapours/dust.
Do not smoke.
Container hazardous when empty.
Take precautionary measures against static discharges.
Avoid exposure - obtain special instructions before use.


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Avoid contact with skin and eyes.
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.
Container may be opened only under exhaust ventilation hood.

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 : BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects. 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. Electrical installations / working materials must comply with the technological safety standards.

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 |
|----------------|----------|-------------------------------|--------------------------------------|------------|
| dimethyl ether | 115-10-6 | TWA | 1.000 ppm 1.920 mg/m ³ | 2000/39/EC |
| | | TWA | 400 ppm 766 mg/m ³ | GB EH40 |


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|---------------|-----------|------|------------------------------------|------------|
| | | STEL | 500 ppm 958 mg/m ³ | GB EH40 |
| Butanone | 78-93-3 | TWA | 200 ppm 600 mg/m ³ | 2000/39/EC |
| | | STEL | 300 ppm 900 mg/m ³ | 2000/39/EC |
| | | TWA | 200 ppm 600 mg/m ³ | GB EH40 |
| | | STEL | 300 ppm 899 mg/m ³ | GB EH40 |
| Xylene | 1330-20-7 | STEL | 100 ppm 441 mg/m ³ | GB EH40 |
| | | TWA | 50 ppm 220 mg/m ³ | GB EH40 |
| | | TWA | 50 ppm 221 mg/m ³ | 2000/39/EC |
| | | STEL | 100 ppm 442 mg/m ³ | 2000/39/EC |
| Ethyl acetate | 141-78-6 | TWA | 200 ppm | GB EH40 |
| | | STEL | 400 ppm | GB EH40 |
| Cyclohexane | 110-82-7 | TWA | 200 ppm 700 mg/m ³ | 2006/15/EC |
| | | TWA | 100 ppm 350 mg/m ³ | GB EH40 |
| | | STEL | 300 ppm 1.050 mg/m ³ | GB EH40 |
| Carbon black | 1333-86-4 | TWA | 3,5 mg/m ³ | GB EH40 |
| | | STEL | 7 mg/m ³ | GB EH40 |

Biological occupational exposure limits

| Substance name | CAS-No. | Control parameters | Sampling time | Basis |
|---------------------|-----------|---|---------------|----------------|
| METHYL ETHYL KETONE | 78-93-3 | butan-2-one: 70 micromol per litre (Urine) | After shift | GB EH40 BAT |
| XYLENE | 1330-20-7 | methyl hippuric acid: 650 mmol/mol creatinine (Urine) | After shift | GB EH40 BAT |

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

dimethyl ether : End Use: Workers
 Exposure routes: Inhalation
 Potential health effects: Long-term systemic effects
 Value: 1894 mg/m³
 End Use: Consumers
 Exposure routes: Inhalation


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Potential health effects: Long-term systemic effects

Value: 471 mg/m³
Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

dimethyl ether : Fresh water
 Value: 0,155 mg/l
 Marine water
 Value: 0,016 mg/l
 Sewage treatment plant
 Value: 160 mg/l
 Fresh water sediment
 Value: 0,681 mg/kg
 Marine sediment
 Value: 0,069 mg/kg
 Soil
 Value: 0,045 mg/kg

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 : Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

Hand protection

Remarks : Nitrile rubber

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 concentration of the dangerous substance at the work place.
 Discard gloves that show tears, pinholes, or signs of wear.

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


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SECTION 9: Physical and chemical properties
9.1 Information on basic physical and chemical properties

| | |
|--|---|
| Appearance | : aerosol |
| Colour | : black |
| Odour | : characteristic |
| Odour Threshold | : No data available |
| pH | : not determined |
| Melting point/freezing point | : Not applicable |
| Boiling point/boiling range | : -24 °C |
| Flash point | : -42 °C Other information: Static Accumulating liquid |
| Evaporation rate | : No data available |
| Flammability (solid, gas) | : No data available |
| Upper explosion limit | : 18,6 %(V) |
| Lower explosion limit | : 0,7 %(V) |
| Vapour pressure | : 4.000 hPa (20 °C) |
| Relative vapour density | : No data available |
| Relative density | : No data available |
| Density | : 0,813 g/cm ³ |
| 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 | |

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- Viscosity, dynamic : No data available
- Viscosity, kinematic : No data available
- 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.

10.5 Incompatible materials

Materials to avoid : alkalis
aluminum
aluminium hydride
Amines
Carbon monoxide
Copper
Copper alloys
halogens
lithium aluminum hydride
nitrates
Nitric acid
Strong acids
strong alkalis
Strong oxidizing agents
sulphuric acid

10.6 Hazardous decomposition products

Hazardous decomposition products : carbon dioxide and carbon monoxide
Nitrogen oxides (NOx)
Sulphur oxides
various hydrocarbons


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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:

Solvent naphtha (petroleum), light arom.

Acute oral toxicity : LD50 (Rat): > 5.600 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 10.200 mg/m³
 Exposure time: 4 h
 Assessment: Not classified as acutely toxic by inhalation under GHS.

Acute dermal toxicity : LD50 (Rabbit): > 4.000 mg/kg

Components:

Butanone

Acute oral toxicity : LD50 (Rat): 2.300 - 3.500 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 5 g/kg

Components:

Xylene

Acute oral toxicity : LD50 (Rat): 3.523 - 8.600 mg/kg

Acute inhalation toxicity : LC50 (Rat): 6700 ppm
 Exposure time: 4 h
 Test atmosphere: vapour

Assessment: The component/mixture is classified as acute inhalation toxicity, category 4.

Acute dermal toxicity : LD50 (Rabbit): 1.700 mg/kg

Components:

Ethyl acetate

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

Acute inhalation toxicity : LC 0 (Rat): > 6000 ppm
 Exposure time: 6 h
 Assessment: Not classified as acutely toxic by inhalation under GHS.


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Acute dermal toxicity : LD50 (Rabbit): > 20.000 mg/kg

Components:

Cyclohexane

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

Acute inhalation toxicity : LC50 (Rat, male and female): > 5540 ppm
 Exposure time: 4 h
 Test atmosphere: vapour
 Method: OECD Test Guideline 403
 Assessment: No adverse effect has been observed in acute inhalation toxicity tests.

Acute dermal toxicity : LD50 (Rabbit): > 2,0 g/kg
 Method: OECD Test Guideline 402
 Assessment: No adverse effect has been observed in acute dermal toxicity tests.

Components:

dimethyl ether

Acute inhalation toxicity : LC50 (Rat): 164000 ppm
 Exposure time: 4 h
 Test atmosphere: gas

Components:

Carbon black

Acute oral toxicity : LD50 (Rat): 8.000 mg/kg

Skin corrosion/irritation

Causes skin irritation.

Product:

Result: Repeated exposure may cause skin dryness or cracking.

Remarks: May cause skin irritation and/or dermatitis.

Components:

Naphtha (petroleum), hydrotreated light

Result: Irritating to skin.

Solvent naphtha (petroleum), light arom.

Result: Slight, transient irritation

Result: Repeated exposure may cause skin dryness or cracking.

Butanone

Result: No skin irritation

Xylene

Result: Irritating to skin.


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Ethyl acetate

Species: Rabbit

Result: Slight, transient irritation

Cyclohexane

Result: Slight, transient irritation

Carbon black

Species: Rabbit

Result: No skin irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

Product:

Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin., Causes serious eye irritation.

Components:

Naphtha (petroleum), hydrotreated light

Result: Slight, transient irritation

Solvent naphtha (petroleum), light arom.

Result: Slight, transient irritation

Butanone

Result: Irritating to eyes.

Xylene

Result: Irritating to eyes.

Ethyl acetate

Species: Rabbit

Result: Slight, transient irritation

Cyclohexane

Result: Slight, transient irritation

Carbon black

Species: Rabbit

Result: No eye irritation

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

Components:

Ethyl acetate

Test Type: Maximisation Test

dimethyl ether


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Remarks: Not applicable

Carbon black
 Test Type: Buehler Test
 Species: Guinea pig
 Assessment: Does not cause skin sensitisation.
 Method: OECD Test Guideline 406

Germ cell mutagenicity

Not classified based on available information.

Components:

Ethyl acetate

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

dimethyl ether

Genotoxicity in vitro : Test Type: Ames test
 Result: negative

: Test Type: Chromosome aberration test in vitro
 Result: negative

: Test Type: In vitro mammalian cell gene mutation test
 Result: negative

: Test Type: unscheduled DNA synthesis assay
 Result: negative

Genotoxicity in vivo : Test species: Drosophila melanogaster (vinegar fly)
 Result: negative

Carbon black

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:

dimethyl ether

Species: Rat
 Application Route: inhalation (vapour)
 NOAEL: No observed adverse effect level: 47,106 mg/l
 Result: negative

Reproductive toxicity

Not classified based on available information.


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Components:

dimethyl ether

Effects on fertility : Application Route: inhalation (gas)
Result: Animal testing did not show any effects on fertility.

Effects on foetal
development

: Application Route: inhalation (vapour)
Method: OECD Test Guideline 414
Result: No teratogenic effects
GLP: yes

STOT - single exposure

May cause drowsiness or dizziness.

Components:

Naphtha (petroleum), hydrotreated light

Assessment: May cause drowsiness or dizziness.

Solvent naphtha (petroleum), light arom.

Assessment: May cause respiratory irritation.

Assessment: May cause drowsiness or dizziness.

Butanone

Assessment: May cause drowsiness or dizziness.

Xylene

Assessment: May cause respiratory irritation., May cause drowsiness or dizziness.

Ethyl acetate

Assessment: May cause drowsiness or dizziness.

Cyclohexane

Assessment: May cause drowsiness or dizziness.

STOT - repeated exposure

Not classified based on available information.

Repeated dose toxicity
Components:

dimethyl ether

Species: Rat

No observed adverse effect level: 47,106 g/m³

Application Route: inhalation (vapour)

Method: OECD Test Guideline 452

Aspiration toxicity


Not classified based on available information.

Components:

Naphtha (petroleum), hydrotreated light

May be fatal if swallowed and enters airways.

Solvent naphtha (petroleum), light arom.

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May be fatal if swallowed and enters airways.

Butanone

May be harmful if swallowed and enters airways.

Xylene

May be fatal if swallowed and enters airways.

Cyclohexane

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:

Butanone

Remarks: Central nervous system

Cyclohexane

Remarks: Central nervous system

SECTION 12: Ecological information

12.1 Toxicity

Components:

Naphtha (petroleum), hydrotreated light

Ecotoxicology Assessment

Acute aquatic toxicity : Toxic to aquatic life.

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

Solvent naphtha (petroleum), light arom.

Ecotoxicology Assessment

Acute aquatic toxicity : Toxic to aquatic life.

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

Butanone

Toxicity to fish : LC50 (Fathead minnow (Pimephales promelas)): 3.130 - 3.320 mg/l
Exposure time: 96 h
Test Type: flow-through test


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- Toxicity to daphnia and other aquatic invertebrates : EC50 (Water flea (*Daphnia magna*)): 4.025 - 6.440 mg/l
Exposure time: 48 h
Test Type: static test
Remarks: Intoxication
- Xylene
Toxicity to fish : LC50 (Fathead minnow (*Pimephales promelas*)): 23,53 - 29,97 mg/l
Exposure time: 96 h
Test Type: static test
- Toxicity to daphnia and other aquatic invertebrates : LC50 (Water flea (*Daphnia magna*)): > 100 - < 1.000 mg/l
Exposure time: 24 h
Test Type: static test
- Ethyl acetate
Toxicity to fish : LC50 (Fathead minnow (*Pimephales promelas*)): 220 - 250 mg/l
Exposure time: 96 h
Test Type: flow-through test
- Toxicity to daphnia and other aquatic invertebrates : LC50 (Water flea (*Daphnia cucullata*)): 154 mg/l
Exposure time: 48 h
Test Type: static test
- Toxicity to algae : NOEC (*Desmodesmus subspicatus* (green algae)): > 100 mg/l
End point: Growth inhibition
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201
GLP: yes
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 2,4 mg/l
Exposure time: 21 d
Species: *Daphnia* (water flea)
Test Type: semi-static test
Method: OECD Test Guideline 211
- Cyclohexane
Toxicity to fish : LC50 (*Pimephales promelas* (fathead minnow)): 4,53 mg/l
Exposure time: 96 h
Test Type: flow-through test
Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Water flea (*Daphnia magna*)): 0,9 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202
- Toxicity to algae : EbC50 (*Pseudokirchneriella subcapitata* (green algae)): 3,4


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mg/l

End point: Biomass

Exposure time: 72 h

ErC50 (Pseudokirchneriella subcapitata (green algae)): >

4,425 mg/l

End point: Growth inhibition

Exposure time: 72 h

dimethyl ether

Toxicity to fish

: LC50 (Poecilia reticulata (guppy)): > 4,1 g/l

Exposure time: 96 h

Test Type: semi-static test

Remarks: No toxicity at the limit of solubility

Toxicity to daphnia and other
aquatic invertebrates

: EC50 (Daphnia magna Straus): > 4,4 g/l

Exposure time: 48 h

Test Type: static test

Remarks: No toxicity at the limit of solubility

Toxicity to algae

: EC50 : 155 mg/l

Exposure time: 96 h

Remarks: QSAR

Toxicity to bacteria

: EC10 (Pseudomonas putida): > 1.600 mg/l

Carbon black

Toxicity to fish

: LC50 (Danio rerio (zebra fish)): > 1.000 mg/l

Exposure time: 96 h

Test Type: semi-static test

Remarks: No toxicity at the limit of solubility

Toxicity to daphnia and other
aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): > 5.600 mg/l

Exposure time: 24 h

Test Type: static test

Remarks: No toxicity at the limit of solubility

Toxicity to algae

: EC50 (Desmodesmus subspicatus (green algae)): > 10.000
mg/l

End point: Growth inhibition

Exposure time: 72 h

Test Type: static test


Remarks: No toxicity at the limit of solubility

12.2 Persistence and degradability
Components:

Xylene

Physico-chemical
removability

: Remarks: The product evaporates readily.

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Ethyl acetate
Biodegradability : Result: Readily biodegradable.

Cyclohexane
Biodegradability : Result: Readily biodegradable.
Biodegradation: 77 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

dimethyl ether
Biodegradability : Test Type: aerobic
Inoculum: activated sludge
Concentration: 2 mg/l
Result: Not readily biodegradable.
Biodegradation: 5 %
Method: OECD Test Guideline 301D
Remarks: According to the results of tests of biodegradability this product is not readily biodegradable.

Carbon black
Biodegradability : Result: The methods for determining biodegradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential

Components:

Butanone
Partition coefficient: n-octanol/water : log Pow: 0,29


Xylene
Partition coefficient: n-octanol/water : log Pow: 3,16

Ethyl acetate
Bioaccumulation : Species: Green algae (Chlorella fusca vacuolata)
Exposure time: 24 h
Concentration: 0,05 mg/l
Bioconcentration factor (BCF): 13.500
Method: Static

Partition coefficient: n-octanol/water : log Pow: 0,68

Cyclohexane
Partition coefficient: n-octanol/water : log Pow: 3,44

dimethyl ether

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Partition coefficient: n-octanol/water : log Pow: 0,10

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Components:

dimethyl ether

Assessment

: This substance is not considered to be very persistent and very bioaccumulating (vPvB).. This substance is not considered to be persistent, bioaccumulating and toxic (PBT)..

12.6 Other adverse effects

Product:

Additional ecological information

: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Toxic 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.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Contaminated packaging

: Empty remaining contents.
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

ADR: Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: UN1950

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: UN1950

INTERNATIONAL MARITIME DANGEROUS GOODS: UN1950

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RID: Not dangerous goods

14.2 UN proper shipping name

ADR: Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: Aerosols, flammable

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: Aerosols, flammable

INTERNATIONAL MARITIME DANGEROUS GOODS: AEROSOLS

RID: Not dangerous goods

14.3 Transport hazard class(es)

ADR: Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: 2.1

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: 2.1

INTERNATIONAL MARITIME DANGEROUS GOODS: 2.1

RID: Not dangerous goods

14.4 Packing group

ADR: Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO:

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER:

INTERNATIONAL MARITIME DANGEROUS GOODS:

RID: Not dangerous goods

14.5 Environmental hazards

ADR: Environmentally hazardous

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: Environmentally hazardous

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: Environmentally hazardous

INTERNATIONAL MARITIME DANGEROUS GOODS: Environmentally hazardous, MARINE POLLUTANT

RID: Environmentally hazardous

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.

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SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : Not applicable

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) : dimethyl ether
Naphtha (petroleum), hydrotreated light
Solvent naphtha (petroleum), light arom.
Butanone
Ethyl acetate
Cyclohexane

Regulation (EC) No 850/2004 on persistent organic pollutants : 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.

| | | Quantity 1 | Quantity 2 |
|-----|---|------------|------------|
| P3a | FLAMMABLE AEROSOLS | 150 t | 500 t |
| E2 | ENVIRONMENTAL HAZARDS | 200 t | 500 t |
| 34 | Petroleum products: (a) gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams),(d) heavy fuel oils (e) alternative fuels serving the same purposes and with similar properties as regards flammability and environmental hazards as the products referred to in points (a) to (d) | 2.500 t | 25.000 t |

Volatile organic compounds : Directive 2004/42/EC
Volatile organic compounds (VOC) content: 75,83 %, 637 g/l

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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:

- TSCA : Not On TSCA Inventory
- DSL : This product contains the following components that are not on the Canadian DSL nor NDSL.
- 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

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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Classification procedure:

| | | |
|-------|--|--------------------|
| H222, | Extremely flammable aerosol., | Calculation method |
| H229 | Pressurised container: May burst if heated. | |
| H315 | Causes skin irritation. | Calculation method |
| H319 | Causes serious eye irritation. | Calculation method |
| H336 | May cause drowsiness or dizziness. | Calculation method |
| H411 | Toxic to aquatic life with long lasting effects. | Calculation method |

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Full text of H-Statements


| | |
|-------------|---|
| H220 | Extremely flammable gas. |
| H225 | Highly flammable liquid and vapour. |
| H226 | Flammable liquid and vapour. |
| H280 | Contains gas under pressure; may explode if heated. |
| H304 | May be fatal if swallowed and enters airways. |
| H312 | Harmful in contact with skin. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |
| 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.

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

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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-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