


| | | |
|--|--|---------------------------|
|  | | Page: 1 |
| SAFETY DATA SHEET | | Revision Date: 07.09.2017 |
| | | Print Date: 24.08.2018 |
| | | SDS Number: R0524101 |
| Valvoline™ COPPER SPRAY PROTECTANT | | Version: 1.3 |
| 750454 | | |

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™ COPPER SPRAY PROTECTANT

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

Recommended use : lubricant


| | |
|---|--|
| <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> |
|---|--|

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. |
| 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 2 | H411: Toxic to aquatic life with long lasting effects. |

| | |
|--|---------------------------|
|  | |
| SAFETY DATA SHEET | Revision Date: 07.09.2017 |
| | Print Date: 24.08.2018 |
| | SDS Number: R0524101 |
| Valvoline™ COPPER SPRAY PROTECTANT | Version: 1.3 |
| 750454 | |

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.
 H336 May cause drowsiness or dizziness.
 H411 Toxic 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.
 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.
 P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
 P273 Avoid release to the environment.
Response:
 P391 Collect spillage.
 P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
Storage:
 P405 Store locked up.
 P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.
 P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
Disposal:
 P501 Dispose of contents/ container to an approved waste disposal plant.


SAFETY DATA SHEET

Revision Date: 07.09.2017

Print Date: 24.08.2018

SDS Number: R0524101

Valvoline™ COPPER SPRAY PROTECTANT

Version: 1.3

750454

Hazardous components which must be listed on the label:

Pentane

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

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 (%) |
|---|--|--|-----------------------|
| Pentane | 109-66-0 203-692-4 01-2119459286-30-xxxx | Flam. Liq.1; H224 STOT SE3; H336 Asp. Tox.1; H304 Aquatic Chronic2; H411 | >= 15,00 - < 20,00 |
| Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics | 01-2119473851-33-xxxx | Flam. Liq.2; H225 STOT SE3; H336 Asp. Tox.1; H304 Aquatic Chronic2; H411 | >= 10,00 - < 15,00 |
| Propane | 74-98-6 200-827-9 01-2119486944-21-xxxx | Flam. Gas1; H220 Press. GasLiquefied gas; H280 | >= 5,00 - < 10,00 |
| Substances with a workplace exposure limit : | | | |
| Butane | 106-97-8 203-448-7 01-2119474691-32-xxxx | Flam. Gas1; H220 Press. GasH281 | >= 25,00 - < 40,00 |
| Copper | 7440-50-8 918-168-7 | | >= 5,00 - < 10,00 |

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


SAFETY DATA SHEET

Revision Date: 07.09.2017

Print Date: 24.08.2018

SDS Number: R0524101

Valvoline™ COPPER SPRAY PROTECTANT

Version: 1.3

750454

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 : 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 : Flush eyes with water as a precaution.
 Remove contact lenses.
 Protect unharmed eye.
 If eye irritation persists, consult a specialist.
- 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:
 stomach or intestinal upset (nausea, vomiting, diarrhea)
 irritation (nose, throat, airways)
 Shortness of breath
 confusion
 irregular heartbeat
- Risks : 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.
- 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


SAFETY DATA SHEET

Revision Date: 07.09.2017

Print Date: 24.08.2018

SDS Number: R0524101

Valvoline™ COPPER SPRAY PROTECTANT

Version: 1.3

750454

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
copper oxide fumes

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.
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.
Ensure adequate ventilation.
Beware of vapours accumulating to form explosive


SAFETY DATA SHEET

Revision Date: 07.09.2017

Print Date: 24.08.2018

SDS Number: R0524101

Valvoline™ COPPER SPRAY PROTECTANT

Version: 1.3

750454

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. 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.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage : BEWARE: Aerosol is pressurized. Keep away from direct sun


SAFETY DATA SHEET

Revision Date: 07.09.2017

Print Date: 24.08.2018

SDS Number: R0524101

Valvoline™ COPPER SPRAY PROTECTANT

Version: 1.3

750454

areas and containers

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.

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 |
|------------|-----------|-------------------------------|--|------------|
| Butane | 106-97-8 | STEL | 750 ppm 1.810 mg/m ³ | GB EH40 |
| | | TWA | 600 ppm 1.450 mg/m ³ | GB EH40 |
| Pentane | 109-66-0 | TWA | 1.000 ppm 3.000 mg/m ³ | 2006/15/EC |
| | | TWA | 600 ppm 1.800 mg/m ³ | GB EH40 |
| Copper | 7440-50-8 | TWA (Fumes) | 0,2 mg/m ³ Fumes (Copper) | GB EH40 |
| | | TWA (Dusts and mists) | 1 mg/m ³ Dusts and mists (Copper) | GB EH40 |
| | | STEL (Dusts and mists) | 2 mg/m ³ Dusts and mists (Copper) | GB EH40 |

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-


SAFETY DATA SHEET

Revision Date: 07.09.2017

Print Date: 24.08.2018

SDS Number: R0524101

Valvoline™ COPPER SPRAY PROTECTANT

Version: 1.3

750454

proof safety goggles if material could be misted or splashed into eyes.

Hand protection

Remarks : Nitrile rubber butyl-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.

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.

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

Appearance : aerosol

Colour : No data available

Odour : hydrocarbon-like

Odour Threshold : No data available

pH :
No data available

Melting point/freezing point : No data available

Boiling point/boiling range : 35,5 °C

Flash point : -97 °C

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Upper explosion limit : 10,9 %(V)


SAFETY DATA SHEET

Revision Date: 07.09.2017

Print Date: 24.08.2018

SDS Number: R0524101

Valvoline™ COPPER SPRAY PROTECTANT

Version: 1.3

750454

| | |
|--|----------------------------------|
| Lower explosion limit | : 0,7 %(V) |
| Vapour pressure | : 2.100 hPa |
| Relative vapour density | : No data available |
| Relative density | : No data available |
| Density | : 0,74 g/cm ³ (20 °C) |
| Solubility(ies) | |
| Water solubility | : insoluble |
| Solubility in other solvents | : No data available |
| Partition coefficient: n-octanol/water | : No data available |
| Decomposition temperature | : No data available |
| Viscosity | |
| Viscosity, dynamic | : No data available |
| Viscosity, kinematic | : No data available |
| | 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.

| | | |
|--|--|---------------------------|
|  | | Page: 10 |
| SAFETY DATA SHEET | | Revision Date: 07.09.2017 |
| | | Print Date: 24.08.2018 |
| | | SDS Number: R0524101 |
| Valvoline™ COPPER SPRAY PROTECTANT | | Version: 1.3 |
| 750454 | | |

None known.

10.5 Incompatible materials

Materials to avoid : acetylenes
 Acids
 Alkali metals
 alkalis
 Amines
 Oxidizing agents
 strong bases
 strong reducing agents
 Sulphur compounds

10.6 Hazardous decomposition products

Hazardous decomposition products : carbon dioxide and carbon monoxide
 copper oxide fumes
 Hydrocarbons

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:

PENTANE NORMAL:

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg
 Assessment: Not classified as acutely toxic by ingestion under GHS.
 Remarks: No mortality observed at this dose.

Acute inhalation toxicity : LC50 (Rat): > 20 mg/l
 Exposure time: 4 h
 Test atmosphere: vapour
 Assessment: No adverse effect has been observed in acute inhalation toxicity tests.

Components:


SAFETY DATA SHEET

Revision Date: 07.09.2017

Print Date: 24.08.2018

SDS Number: R0524101

Valvoline™ COPPER SPRAY PROTECTANT

Version: 1.3

750454

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics:

Acute oral toxicity : LD50 (Rat, male and female): > 5.000 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): > 23,3 mg/l
 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 (Rat, male and female): > 2.800 - 3.100 mg/kg

Components:
PROPANE:

Acute inhalation toxicity : LC50 (Rat): 1.237 mg/l
 Exposure time: 2 h
 Test atmosphere: gas
 Assessment: Not classified as acutely toxic by inhalation under GHS.
 Remarks: Information given is based on data obtained from similar substances.

Components:
BUTANE NORMAL:

Acute inhalation toxicity : LC50 (Rat): > 50000 ppm
 Exposure time: 2 h
 Test atmosphere: gas

Skin corrosion/irritation

Repeated exposure may cause skin dryness or cracking.

Product:

Result: Repeated exposure may cause skin dryness or cracking.

Components:
PENTANE NORMAL:

Result: Slight, transient irritation


Result: Repeated exposure may cause skin dryness or cracking.

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics:

Species: Rabbit
 Method: OECD Test Guideline 404
 Result: Slight, transient irritation

COPPER:

Result: No skin irritation

| | | |
|--|--|---------------------------|
|  | | Page: 12 |
| SAFETY DATA SHEET | | Revision Date: 07.09.2017 |
| | | Print Date: 24.08.2018 |
| | | SDS Number: R0524101 |
| Valvoline™ COPPER SPRAY PROTECTANT | | Version: 1.3 |
| 750454 | | |

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Remarks: Unlikely to cause eye irritation or injury.

Components:

PENTANE NORMAL:

Result: Slight, transient irritation

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics:

Species: Rabbit

Result: Slight, transient irritation

COPPER:

Result: Slight, transient irritation

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

Components:

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics:

Test Type: Maximisation Test

Species: Guinea pig

Method: OECD Test Guideline 406

Germ cell mutagenicity

Not classified based on available information.


Components:

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics:

Genotoxicity in vitro : Test Type: Ames test
 Metabolic activation: with and without metabolic activation
 Method: OECD Test Guideline 471
 Result: negative

: Method: OECD Test Guideline 473
 Result: negative

Genotoxicity in vivo : Test Type: In vivo micronucleus test
 Test species: Mouse
 Application Route: Oral
 Method: OECD Test Guideline 474
 Result: negative

| | | |
|--|--|---------------------------|
|  | | Page: 13 |
| SAFETY DATA SHEET | | Revision Date: 07.09.2017 |
| | | Print Date: 24.08.2018 |
| | | SDS Number: R0524101 |
| Valvoline™ COPPER SPRAY PROTECTANT | | Version: 1.3 |
| 750454 | | |

PROPANE:

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

BUTANE NORMAL:

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.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

May cause drowsiness or dizziness.

Components:

PENTANE NORMAL:

Assessment: May cause drowsiness or dizziness.

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics:

Assessment: May cause drowsiness or dizziness.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

May be fatal if swallowed and enters airways.

Components:

PENTANE NORMAL:

May be fatal if swallowed and enters airways.

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics:

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.,


SAFETY DATA SHEET

Revision Date: 07.09.2017

Print Date: 24.08.2018

SDS Number: R0524101

Valvoline™ COPPER SPRAY PROTECTANT

Version: 1.3

750454

Solvents may degrease the skin.

Components:
COPPER:

Remarks: Gastro-intestinal system

SECTION 12: Ecological information
12.1 Toxicity
Components:

Pentane

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 4,26 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Water flea (Daphnia magna)): > 1 - 10 mg/l
Exposure time: 48 h

Toxicity to algae : ErC50 (Pseudokirchneriella subcapitata (green algae)): 10,7 mg/l
Exposure time: 72 h

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Toxicity to fish : LL50 (Oncorhynchus mykiss (rainbow trout)): 3 - 10 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)): 4,6 - 10 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)): 10 - 30 mg/l
End point: Growth inhibition
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,17 mg/l
Exposure time: 21 d
Species: Water flea (Daphnia magna)
Test Type: static test


SAFETY DATA SHEET

Revision Date: 07.09.2017

Print Date: 24.08.2018

SDS Number: R0524101

Valvoline™ COPPER SPRAY PROTECTANT

Version: 1.3

750454

Test substance: WAF
Method: OECD Test Guideline 211

Ecotoxicology Assessment

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

Butane

Toxicity to fish : Remarks: No toxicity at the limit of solubility
QSAR

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): Expected > 10 - < 100 mg/l
Exposure time: 48 h
Remarks: QSAR

Toxicity to algae : EC50 (green algae): Expected 7,7 mg/l
Exposure time: 96 h
Remarks: QSAR

12.2 Persistence and degradability
Components:
Pentane

Biodegradability : Result: Readily biodegradable.
Biodegradation: 87 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Biodegradability : Inoculum: activated sludge
Biodegradation: 98 %
Exposure time: 28 d
Method: OECD Test Guideline 301F
Remarks: Information given is based on data obtained from similar substances.


Butane

Biodegradability : Result: Readily biodegradable.
Remarks: Information given is based on data obtained from similar substances.

Copper

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

12.3 Bioaccumulative potential
Components:

| | | |
|--|--|---------------------------|
|  | | Page: 16 |
| SAFETY DATA SHEET | | Revision Date: 07.09.2017 |
| | | Print Date: 24.08.2018 |
| | | SDS Number: R0524101 |
| Valvoline™ COPPER SPRAY PROTECTANT | | Version: 1.3 |
| 750454 | | |

Pentane
Partition coefficient: n-octanol/water : log Pow: 3,39

Propane
Partition coefficient: n-octanol/water : log Pow: 2,36

Butane
Partition coefficient: n-octanol/water : log Pow: 2,89

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., Toxic to aquatic life., 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.
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

| | | |
|--|--|---------------------------|
|  | | Page: 17 |
| SAFETY DATA SHEET | | Revision Date: 07.09.2017 |
| | | Print Date: 24.08.2018 |
| | | SDS Number: R0524101 |
| Valvoline™ COPPER SPRAY PROTECTANT | | Version: 1.3 |
| 750454 | | |

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: UN1950
INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: UN1950
INTERNATIONAL MARITIME DANGEROUS GOODS: UN1950
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

| | | |
|--|--|---------------------------|
|  | | Page: 18 |
| SAFETY DATA SHEET | | Revision Date: 07.09.2017 |
| | | Print Date: 24.08.2018 |
| | | SDS Number: R0524101 |
| Valvoline™ COPPER SPRAY PROTECTANT | | Version: 1.3 |
| 750454 | | |

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 - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Butane
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

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

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 |

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)
Volatile organic compounds (VOC) content: 475 g/l

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 : On TSCA Inventory

| | | |
|--|--|---------------------------|
|  | | Page: 19 |
| SAFETY DATA SHEET | | Revision Date: 07.09.2017 |
| | | Print Date: 24.08.2018 |
| | | SDS Number: R0524101 |
| Valvoline™ COPPER SPRAY PROTECTANT | | Version: 1.3 |
| 750454 | | |

| | |
|-------|--|
| 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 |
| IECSC | On the inventory, or in compliance with the inventory |
| PICCS | On the inventory, or 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

Revision Date: 07.09.2017

Full text of H-Statements

| | |
|------|---|
| H220 | Extremely flammable gas. |
| H224 | Extremely flammable liquid and vapour. |
| H225 | Highly flammable liquid and vapour. |
| H280 | Contains gas under pressure; may explode if heated. |
| H281 | Contains refrigerated gas; may cause cryogenic burns or injury. |
| H304 | May be fatal if swallowed and enters airways. |
| H336 | May cause drowsiness or dizziness. |
| 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).


SAFETY DATA SHEET

Revision Date: 07.09.2017

Print Date: 24.08.2018

SDS Number: R0524101

Valvoline™ COPPER SPRAY PROTECTANT

Version: 1.3


750454

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

| | |
|--|---------------------------|
|  | Page: 21 |
| SAFETY DATA SHEET | Revision Date: 07.09.2017 |
| | Print Date: 24.08.2018 |
| | SDS Number: R0524101 |
| Valvoline™ COPPER SPRAY PROTECTANT 750454 | Version: 1.3 |

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