

WOLF MULTIGRADE PD-1 SF/CD SAE 20W50

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 13/08/2003

Revision date: 28/03/2018

Supersedes: 10/08/2016

Version: 7.0

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

1.1. Product identifier

Product form : Mixture
Product name : WOLF MULTIGRADE PD-1 SF/CD SAE 20W50
Product code : 1347
Product group : Blend

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

1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use, Consumer use
Industrial/Professional use spec : Non-dispersive use
Used in closed systems
Function or use category : Lubricants and additives

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

WOLF OIL CORPORATION N.V.
Georges Gilliotstraat, 52
2620 Hemiksem - België
T 0032 (0)3 870 00 00 - F 0032 (0)3 870 00 99
info@wolfoil.com

1.4. Emergency telephone number

Emergency number : +32 14 58 45 45 (NL/EN/FR/DE)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

EUH-statements : EUH210 - Safety data sheet available on request

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|------------------------------|---|------------|--|
| Zinc dialkyl dithiophosphate | (CAS No) 68649-42-3 (EC no) 272-028-3 | 1 - 1,49 | Eye Dam. 1, H318 Skin Irrit. 2, H315 Aquatic Chronic 2, H411 |
| Organomolybdenum amide | (CAS No) 445409-27-8 (EC no) 686-534-0 | 0,1 - 0,49 | Aquatic Chronic 2, H411 |

Full text of H-statements: see section 16

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SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|---------------------------------------|---|
| First-aid measures after inhalation | : Not expected to require first aid measures. |
| First-aid measures after skin contact | : Wash skin with mild soap and water. |
| First-aid measures after eye contact | : In case of eye contact, immediately rinse with clean water for 10-15 minutes. |
| First-aid measures after ingestion | : Do not induce vomiting. Rinse mouth. Get immediate medical advice/attention. |

4.2. Most important symptoms and effects, both acute and delayed

| | |
|--------------------------------------|--|
| Symptoms/injuries after inhalation | : Not expected to present a significant inhalation hazard under anticipated conditions of normal use. |
| Symptoms/injuries after skin contact | : Not expected to present a significant skin hazard under anticipated conditions of normal use. |
| Symptoms/injuries after eye contact | : Not expected to present a significant eye contact hazard under anticipated conditions of normal use. |
| Symptoms/injuries after ingestion | : Not expected to present a significant ingestion hazard under anticipated conditions of normal use. |

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

| | |
|--------------------------------|--|
| Suitable extinguishing media | : Water fog. Foam. Powder. Dry chemical product. |
| Unsuitable extinguishing media | : Do not use a heavy water stream. |

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

| | |
|--------------------------------|---|
| Precautionary measures fire | : Exercise caution when fighting any chemical fire. |
| Firefighting instructions | : Use water spray or fog for cooling exposed containers. |
| Protection during firefighting | : Do not enter fire area without proper protective equipment, including respiratory protection. |

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

| | |
|----------------------|---|
| Protective equipment | : Wear suitable protective clothing and gloves. |
|----------------------|---|

6.1.2. For emergency responders

| | |
|----------------------|---|
| Protective equipment | : Wear suitable protective clothing and gloves. |
|----------------------|---|

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

| | |
|-------------------------|---|
| For containment | : Impound and recover large spill by mixing it with inert granular solids. |
| Methods for cleaning up | : Detergent. Take up liquid spill into absorbent material sand, saw dust, kieselguhr. |
| Other information | : Spill area may be slippery. Use suitable disposal containers. |

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

| | |
|-------------------------------|---|
| Precautions for safe handling | : Avoid all unnecessary exposure. Both local exhaust and general room ventilation are usually required. |
| Handling temperature | : < 40 °C |
| Hygiene measures | : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. |

7.2. Conditions for safe storage, including any incompatibilities

| | |
|---------------------|---|
| Storage temperature | : < 40 °C |
| Storage area | : Store in dry, cool, well-ventilated area. |

7.3. Specific end use(s)

No additional information available

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional information : 5 mg/m³ for oil mists (TWA, 8h-workday) recommended, based upon the ACGIH TLV (Analysis according to US NIOSH Method 5026, NIOSH Manual of Analytical Methods, 3rd Edition).

8.2. Exposure controls

Personal protective equipment:

Safety glasses. Gloves.

Hand protection:

Permeation time: minimum >480min long term exposure; material / thickness [mm]: >0,35 mm. Nitrile rubber (NBR) /

Skin and body protection:

No special clothing/skin protection equipment is recommended under normal conditions of use

Respiratory protection:

No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation.



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|---|
| Physical state | : Liquid |
| Appearance | : Oily liquid. |
| Colour | : Yellow-brown. |
| Odour | : Characteristic. |
| Odour threshold | : No data available |
| pH | : No data available |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point | : No data available |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : > 230 °C @ ASTM D92 |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : No data available |
| Vapour pressure | : No data available |
| Relative vapour density at 20 °C | : No data available |
| Relative density | : No data available |
| Density | : 880 kg/m ³ @15°C |
| Solubility | : Slightly soluble, the product remains on the water surface. |
| Log Pow | : No data available |
| Viscosity, kinematic | : 168 mm ² /s @ 40°C |
| Viscosity, dynamic | : No data available |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |
| Explosive limits | : No data available |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

None under normal conditions.

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10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal conditions.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

Strong oxidizers. acids. Bases.

10.6. Hazardous decomposition products

None under normal conditions.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Organomolybdenum amide (445409-27-8)

| | |
|---------------|--------------|
| LD50 oral rat | > 5000 mg/kg |
|---------------|--------------|

| | |
|-----------------|--------------|
| LD50 dermal rat | > 2000 mg/kg |
|-----------------|--------------|

Zinc dialkyl dithiophosphate (68649-42-3)

| | |
|---------------|------------|
| LD50 oral rat | 2230 mg/kg |
|---------------|------------|

| | |
|-----------------|--------------|
| LD50 dermal rat | > 2000 mg/kg |
|-----------------|--------------|

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified (There is dilution test data available which is applicable to the ZDDP present in the mixture. A product containing 15,4% of ZDDP was tested in an in vivo eye irritation study (OECD405). At the 24 hour observation point light redness and chemosis could be recorded, but had fully reversed at the 48h observation point. No further signs of irritation were recorded during the 7 day observation period. This test data confirms that when ZDDP is present in a mixture at <15% (w/w), the mixture does not meet the classification criteria for either Eye Dam. 1,H318; Eye Irrit. 2,H319 or Skin Irrit. 2,H315 under the CLP Regulation.)

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

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| | |
|----------------------|-------------------------------|
| Viscosity, kinematic | 168 mm ² /s @ 40°C |
|----------------------|-------------------------------|

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Based on available data, the classification criteria are not met.

Organomolybdenum amide (445409-27-8)

| | |
|-------------|---------------|
| LC50 fish 1 | > 10 mg/l 96h |
|-------------|---------------|

| | |
|----------------|--------------|
| EC50 Daphnia 2 | 1,5 mg/l 48h |
|----------------|--------------|

| | |
|--------------------|----------|
| EC50 72h algae (1) | 1,5 mg/l |
|--------------------|----------|

12.2. Persistence and degradability

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| | |
|-------------------------------|--|
| Persistence and degradability | Not soluble in water, so only minimally biodegradable. |
|-------------------------------|--|

Zinc dialkyl dithiophosphate (68649-42-3)

| | |
|-------------------------------|----------------------------|
| Persistence and degradability | Not readily biodegradable. |
|-------------------------------|----------------------------|

12.3. Bioaccumulative potential

No additional information available

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12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Additional information : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

| | |
|---------------|------------------|
| UN-No. (ADR) | : Not applicable |
| UN-No. (IMDG) | : Not applicable |
| UN-No. (IATA) | : Not applicable |
| UN-No. (ADN) | : Not applicable |
| UN-No. (RID) | : Not applicable |

14.2. UN proper shipping name

| | |
|-----------------------------|------------------|
| Proper Shipping Name (ADR) | : Not applicable |
| Proper Shipping Name (IMDG) | : Not applicable |
| Proper Shipping Name (IATA) | : Not applicable |
| Proper Shipping Name (ADN) | : Not applicable |
| Proper Shipping Name (RID) | : Not applicable |

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

ADN

Transport hazard class(es) (ADN) : Not applicable

RID

Transport hazard class(es) (RID) : Not applicable

14.4. Packing group

| | |
|----------------------|------------------|
| Packing group (ADR) | : Not applicable |
| Packing group (IMDG) | : Not applicable |
| Packing group (IATA) | : Not applicable |
| Packing group (ADN) | : Not applicable |
| Packing group (RID) | : Not applicable |

14.5. Environmental hazards

| | |
|-------------------------------|--|
| Dangerous for the environment | : No |
| Marine pollutant | : No |
| Other information | : No supplementary information available |

14.6. Special precautions for user

- Overland transport

No data available

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- Transport by sea

No data available

- Air transport

No data available

- Inland waterway transport

No data available

- Rail transport

No data available

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany

VwVwS Annex reference : Water hazard class (WGK) nwg, Non-hazardous to water (Classification according to VwVwS, Annex 4)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : Zinc dialkyl dithiophosphate is listed

SZW-lijst van mutagene stoffen : Zinc dialkyl dithiophosphate is listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

15.2. Chemical safety assessment

No chemical safety assessment has been carried out for the substance or the mixture by the supplier

SECTION 16: Other information

Indication of changes:

| Section | Changed item | Change | Comments |
|---------|--|----------|----------|
| | Revision date | Modified | |
| | Supersedes | Modified | |
| 2.2 | EUH-statements | Modified | |
| 3 | Composition/information on ingredients | Modified | |
| 11.1 | Reason for no classification | Added | |

Abbreviations and acronyms:

| | |
|--|--|
| | ACGIH: American Conference of Governmental Industrial Hygienists |
| | TWA: Time Weighted Average |
| | TLV: Threshold Limit Value |
| | ASTM: American Society for Testing and Materials |
| | ADR: Accord Européen Relatif au Transport International des Marchandises Dangereuses par Route |
| | RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail |
| | ADNR: Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin |
| | IMDG: International Maritime Dangerous Goods |
| | ICAO: International Civil Aviation Organization |

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| | |
|--|---|
| | IATA: International Air Transport Association |
| | STEL: Short Term Exposure Limit |
| | LD50: median Lethal Dose for 50% of subjects |
| | ATE: acute toxicity estimate |
| | LC50: median Lethal Concentration for 50% of subjects |
| | EC50: concentration producing 50% effect |

Other information

: The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

Full text of H- and EUH-statements:

| | |
|-------------------|---|
| Aquatic Chronic 2 | Hazardous to the aquatic environment — Chronic Hazard, Category 2 |
| Eye Dam. 1 | Serious eye damage/eye irritation, Category 1 |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| H315 | Causes skin irritation |
| H318 | Causes serious eye damage |
| H411 | Toxic to aquatic life with long lasting effects |
| EUH210 | Safety data sheet available on request |

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product