

SAFETY DATA SHEET

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

1.1. Product identifier

Product name INTERNAL HUB MAINTENANCE OIL

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

Identified uses Lubricant.

Uses advised against Use only for intended applications.

1.3. Details of the supplier of the safety data sheet

Manufacture & Distributor : SHIMANO EUROPE B.V.

Address : High Tech Campus 92, 5656 AG Eindhoven, The Netherlands

Emergency and Phone number : +31-402-612222 (Business Hours Only)

E-mail : shimano.eu.sds@shimano-eu.com

1.4. Emergency telephone number

Emergency telephone : +31-402-61222 (Only available during office hours.)

Ireland National Poisons Information Centre Beaumont Hospital
PO Box 1297 Beaumont Road 9 Dublin
+353 1 809 2566 (Healthcare professionals-24/7)
+353 1 809 2166 (public, 8am - 10pm, 7/7)

United Kingdom National Poisons Information Service (Newcastle Centre)
Regional Drugs and Therapeutics Centre, Wolfson Unit
Claremont Place Newcastle-upon-Tyne NE1 4LP Newcastle
0844 892 0111 (UK only, 24/7, healthcare professionals only)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Not Classified

2.2. Label elements

Hazard statements NC Not Classified

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

| | | | |
|------------------------|----------------------|--|--------|
| Lubricating oils | | | 98-99% |
| CAS number: 64742-52-5 | EC number: 265-155-0 | REACH registration number: 01-2119467170-45-XXXX | |

Classification
Not Classified

※ DMSO extraction of less than 3% by the IP346 method

| | | |
|-------------------------|------------------------|------|
| Additives | | 1-2% |
| CAS number: Proprietary | EC number: Proprietary | |

Classification
Not Classified

| | | |
|-------------------------|------------------------|-------|
| Dyestuff (blue) | | <0.1% |
| CAS number: Proprietary | EC number: Proprietary | |

Classification
Not Classified

The full text for all hazard statements is displayed in Section 16.

Composition comments Voluntary disclosure.

SECTION 4: First aid measures

4.1. Description of first aid measures

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|----------------------------|---|
| General information | Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel. |
| Inhalation | Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. |
| Ingestion | Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Maintain an open airway. |
| Skin contact | Remove affected person from source of contamination. Rinse immediately with plenty of water. Get medical attention if any discomfort continues. |
| Eye contact | Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Hold eyelids apart. Continue to rinse for at least 15 minutes and get medical attention. |
| Protection of first aiders | First aid personnel should wear appropriate protective equipment during any rescue. |

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

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| Inhalation | Prolonged inhalation of high concentrations may damage respiratory system. |
| Ingestion | Gastrointestinal symptoms, including upset stomach. Nausea, vomiting. Diarrhoea. |
| Skin contact | Prolonged contact may cause dryness of the skin. |
| Eye contact | May cause temporary eye irritation. |

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

| | |
|----------------------|--------------------------------|
| Notes for the doctor | Treat symptomatically. |
| Specific treatments | No special treatment required. |

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Use foam, carbon dioxide, dry powder or fog (reinforced liquids) to extinguish.
Small fires: Carbon dioxide or dry powder.
Larger fires: Foam. Cut off the air supply is effective.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards Containers can burst violently or explode when heated, due to excessive pressure build-up.

Hazardous combustion products Thermal decomposition or combustion products may include the following substances: Irritating gases or vapours. Toxic and corrosive gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting Keep unnecessary and unprotected personnel away. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke. Remove combustibles from the vicinity quickly. Keep surrounding areas cool by spraying water. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk.

Special protective equipment for firefighters Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of vapours and contact with skin and eyes. Keep unnecessary and unprotected personnel away from the spillage. Do not touch or walk into spilled material. Follow precautions for safe handling described in this safety data sheet. Do not enter storage areas or confined spaces unless adequately ventilated. Vapours may accumulate on the floor and in low-lying areas.

6.2. Environmental precautions

Environmental precautions Avoid the spillage or runoff entering drains, sewers or watercourses. Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air). Clean contaminated objects and areas thoroughly, observing environmental regulations.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Approach the spillage from upwind. Small Spillages: Absorb in vermiculite, dry sand or earth and place into containers. Wipe up with an absorbent cloth and dispose of waste safely. Large Spillages: Dike and lead the spillage to safe area to collect. Cover large spillages with alcoholresistant foam. Place waste in labelled, sealed containers. Marine: Enclose spillage by oil fence. Absorb with absorption mat. Clean contaminated objects and areas thoroughly, observing environmental regulations. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Precautionary measures to prevent the occurrence of secondary hazards Inform authorities if large amounts are involved. Eliminate all sources of ignition. Before operation, prepare fire extinguisher.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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| Usage precautions | Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. All handling should only take place in well-ventilated areas. Handle all packages and containers carefully to minimise spills. Avoid inhalation of vapours/spray and contact with skin and eyes. Avoid the formation of mists. Keep container tightly sealed when not in use. Keep at temperature not exceeding 40°C. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Static electricity and formation of sparks must be prevented. Keep away from food, drink and animal feeding stuffs. |
| Advice on general occupational hygiene | Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace. |

7.2. Conditions for safe storage, including any incompatibilities

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|---------------------|---|
| Storage precautions | Use explosion-proof electrical, ventilating and lighting equipment. Earth container and transfer equipment to eliminate sparks from static electricity. Take precautionary measures against static discharges. Keep container tightly closed and in a well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep at temperature not exceeding 40°C/104°F. Avoid exposure to high temperatures or direct sunlight. Store away from incompatible materials (see Section 10). Store away from the following materials: Strong oxidising agents. Alkalis. Halogens. Do not place any pressure on a empty container to prevent the container to burst. Store in accordance with local regulations. |
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7.3. Specific end use(s)

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| Specific end use(s) | The identified uses for this product are detailed in Section 1.2. |
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SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

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| Ingredient comments | No exposure limits known for ingredient(s). |
|---------------------|---|

8.2. Exposure controls

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| Appropriate engineering controls | Provide adequate ventilation. Use explosion-proof electrical, ventilating and lighting equipment. Take precautionary measures against static discharges. If there is a risk of generation of vapour/mist/dust: Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimise worker exposure. Provide eyewash station and safety shower. |
| Eye/face protection | Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with European Standard EN166. The following protection should be worn: Chemical splash goggles. |
| Hand protection | Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374. Frequent changes are recommended. |

| | |
|---------------------------------|---|
| Other skin and body protection | Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible. Wear conductive work clothes and work shoes. |
| Hygiene measures | Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. |
| Respiratory protection | Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. If ventilation is inadequate, suitable respiratory protection must be worn. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140. Organic vapourfilter. Dust and mist filter. |
| Environmental exposure controls | Keep container tightly sealed when not in use. |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

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| Appearance | Liquid. |
| Colour | Blue. |
| Odour | Petroleum. Oil-like. |
| Odour threshold | Not available. |
| pH | Not applicable. |
| Melting point | -32.5°C * |
| Initial boiling point and range | ≥250°C * |
| Flash point | ≥ 160°C * |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Upper/lower flammability or explosive limits | Lower flammable/explosive limit: 1.0 % Upper flammable/explosive limit: 7.0 % * |
| Other flammability | Flammable/combustible materials. |
| Vapour pressure | Not available. |
| Vapour density | Not available. |
| Relative density | 0.91 @ 25°C |
| Solubility(ies) | Insoluble in water. Soluble in the following materials: Organic solvents. |
| Partition coefficient | Not available. |
| Auto-ignition temperature | Not available. |
| Decomposition Temperature | Not available. |
| Viscosity | Not available. |
| Explosive properties | Not available. |
| Oxidising properties | Not available. |

9.2. Other information

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|------------|------------------------------|
| Volatility | The product is non-volatile. |
| Comments | * : Main constituent. |

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity The following materials may react with the product: Strong oxidising agents. Peroxides. See the other subsections of this section for further details.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.
Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Avoid contact with the following materials: Strong oxidising agents. Peroxides.

10.4. Conditions to avoid

Conditions to avoid Keep away from heat, sparks and open flame. Keep away from sources of ignition
- No smoking. Containers can burst violently or explode when heated, due to excessive pressure build-up.

10.5. Incompatible materials

Materials to avoid Strong acids. Strong oxidising agents. Peroxides. Alkalis. Alkali metal hydroxides. Halogens.

10.6. Hazardous decomposition products

Hazardous decomposition products Does not decompose when used and stored as recommended.
Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Routes of exposure Skin , Eyes , Ingestion , Inhalation , Health effects: See section 4.2.

Acute toxicity - oral

Summary Based on available data the classification criteria are not met.
Notes (oral LD₅₀) Not available.

Acute toxicity - dermal

Summary Based on available data the classification criteria are not met.
Notes (dermal LD₅₀) Not available.

Acute toxicity - inhalation

Summary Based on available data the classification criteria are not met.
Notes (inhalation LC₅₀) Not available.

Skin corrosion/irritation

Summary Based on available data the classification criteria are not met.
Skin corrosion/irritation Not available.

Serious eye damage/irritation

Summary Based on available data the classification criteria are not met.
Serious eye damage/irritation Not available.

Respiratory sensitisation

Summary Based on available data the classification criteria are not met.
Respiratory sensitisation Not available.

Skin sensitisation

| | |
|--------------------|--|
| Summary | Based on available data the classification criteria are not met. |
| Skin sensitisation | Not available. |

Germ cell mutagenicity

| | |
|-------------------------|--|
| Summary | Based on available data the classification criteria are not met. |
| Genotoxicity - in vitro | Not available. |

Carcinogenicity

| | |
|-----------------|--|
| Summary | Based on available data the classification criteria are not met. |
| Carcinogenicity | Not available. |

Reproductive toxicity

| | |
|-------------------------------------|--|
| Summary | Based on available data the classification criteria are not met. |
| Reproductive toxicity - fertility | Not available. |
| Reproductive toxicity - development | Not available. |

Specific target organ toxicity - single exposure

| | |
|------------------------|--|
| Summary | Based on available data the classification criteria are not met. |
| STOT - single exposure | Not available. |

Specific target organ toxicity - repeated exposure

| | |
|--------------------------|--|
| Summary | Based on available data the classification criteria are not met. |
| STOT - repeated exposure | Not available. |

Aspiration hazard

| | |
|-------------------|--|
| Summary | Based on available data the classification criteria are not met. |
| Aspiration hazard | Not available. |

Toxicological information on ingredients.

Lubricating oils

Acute toxicity - oral

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|--------------------------------|--|
| Notes (oral LD ₅₀) | LD ₅₀ 5000-15000 mg/kg, Oral, Rat |
|--------------------------------|--|

Carcinogenicity

| | |
|----------------------|--|
| IARC carcinogenicity | IARC Group 3 Not classifiable as to its carcinogenicity to humans. |
|----------------------|--|

SECTION 12: Ecological information

12.1. Toxicity

Toxicity Not available.

Acute aquatic toxicity

Summary Based on available data the classification criteria are not met.

Chronic aquatic toxicity

Summary Based on available data the classification criteria are not met.

12.2. Persistence and degradability

Persistence and degradability The degradability of the product is not known.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not available.

12.4. Mobility in soil

Mobility The product is insoluble in water.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

Not applicable.

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

Transport in bulk according to Not applicable.
Annex II of MARPOL 73/78
and the IBC Code

SECTION 15: Regulatory information

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

EU legislation Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Commission Regulation (EU) No 2015/830 of 28 May 2015.
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Complied by: Shimano Inc.

Abbreviations and acronyms used in the safety data sheet

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.

RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.

IATA: International Air Transport Association.

ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.

IMDG: International Maritime Dangerous Goods.

CAS: Chemical Abstracts Service.

ATE: Acute Toxicity Estimate.

LC₅₀: Lethal Concentration to 50 % of a test population.

LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).

EC₅₀: 50% of maximal Effective Concentration.

PBT: Persistent, Bioaccumulative and Toxic substance.

vPvB: Very Persistent and Very Bioaccumulative.

Classification procedures according to Regulation (EC) 1272/2008

Classification procedures: Calculation method.

| | |
|-----------------|--|
| Training advice | Read and follow manufacturer's recommendations. Ensure operatives are trained to minimise exposure. Only trained personnel should use this material. |
|-----------------|--|

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.