

SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name INTERNAL HUB GREASE

Identification of Substance/Preparation

Grease

SDS No. IHG20120718-Eng

Company Identification

Manufacturer and Distributor : SHIMANO NORTH AMERICA BICYCLE, INC.

Address : One Holland, Irvine, California 92618, U.S.A

Emergency and Phone number : +1-949-951-5003 (Business Hours Only)

Manufacturer and 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

Manufacturer and Distributor : SHIMANO INC.

Address : 3-77 Oimatsu-cho Sakaiku Sakai OSAKA 5908577, JAPAN

Emergency and Phone number : 0570-031961 (Business Hours Only)

2. HAZARDS IDENTIFICATION

GHS Classification

Physical Hazard : -

Health Hazard : Serious eye damage/eye irritation Category1

Environmental Hazard : -

Pictogram :



Signal word : Danger

Hazard statement

Physical Hazard : -

Health Hazard : H318 Causes serious eye damage

Environmental Hazard : -

Precautionary Statement

Prevention : P202 Do not handle until all safety precautions have been read and understood.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response : P305+P351+P338

IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

Storage : -

Disposal : -

3. Composition/information on ingredients

Substance/Mixture : Mixture
Common name : Grease

| Ingredient name | CAS No. | mass% |
|--------------------------|----------------|----------|
| Refined mineral oil | Non-disclosure | 70~90% |
| Bentonite clay | 1302-78-9 | 2.5~4.1% |
| Quaternary ammonium salt | Non-disclosure | 20.~3.4% |
| Crystalline silica | 14808-60-7 | <0.3% |
| Calcium hydroxide | 1305-62-0 | 5~10% |
| White solid lubricant | Non-disclosure | 2~3.5% |
| Antioxidant Additive | Non-disclosure | 0.5~2% |
| Additive | Non-disclosure | 1~2% |

4. FIRST AID MEASURES

If inhaled : Move to fresh air.
If symptoms develop and persist, get medical attention.
If not breathing, give artificial respiration.

If on skin : Wash with plenty of water.
If skin irritation or rash occurs: Get medical attention.

If in eyes : Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.

If swallowed : Rinse mouth.
Get immediate medical attention.
Do not induce vomiting.
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.

Most important : Currently, there is no useful information.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media : Use dry chemical, carbon dioxide, chemical foam.
Inappropriate Extinguishing Media: Straight streams of water

Specific hazards arising from the chemical : Generates toxic gas by burning.
Combustion Products: Carbon oxide

Special protective actions for fire-fighters : Wear fire resistant or flame retardant clothing.
Fight fire with normal precautions from a reasonable distance.
Extinguishing activities on windward side.
In case of leakage, eliminate all ignition sources.
If safe to do so, remove the product from the fire area.
Avoid breathing vapor from overheated material.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : See personal protection recommendations in Section 8.
Evacuate surrounding areas.
Provide adequate ventilation.
Wear appropriate respirator when ventilation is inadequate.
- Environmental precautions : Prevent spill from entering drains and waterways
Do not allow to enter the ground / soil.
Avoid release to the environment.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so.
For small spills wipe up with paper towel and place in container for disposal.
Absorb spillage to prevent material damage.
Remember, adding an absorbent material does not remove a physical, health, or environmental hazard.
Use spark-proof tools and explosion-proof equipment.
Dispose it by a licensed waste disposal contractor.

7. HANDLING AND STORAGE

- Precautions for safe handling
- Handling : Keep out of reach of children.
Do not handle until all safety precautions have been read and understood.
Do not eat, drink or smoke when using this product.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
No smoking.
- Storage : Store in accordance with law.
Protect from sunlight. Store in a well-ventilated place.
Store at temperatures not exceeding 40°C.
- Technical measures : Do not subject to grinding/shock/friction.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
No smoking.
- Incompatibility : Strong oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Control parameters :

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| Ingredient name | TLV-TWA |
| Refined mineral oil | 5 mg/m ³ |
- Appropriate engineering controls : Ensure adequate ventilation, especially in confined areas.
- Individual protection measures, such as personal protective equipment
- Eye/face protection : Wear protective gloves/protective clothing/eye protection/face protection.
If contact is likely, safety glasses with side shields are recommended.
- Skin protection : Use chemical resistant impermeable clothing by suit to prevent skin contact.
Chemical/oil resistant clothing is recommended.
- Respiratory protection : No personal respiratory protective equipment normally required.
- Thermal hazards : Avoid breathing vapor from overheated material.
Wear respiratory protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

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|-------------|--|
| Appearance | : Semisolid |
| Colour | : White |
| Odor | : Slight smell |
| Flash point | : $\geq 230^{\circ}\text{C}$ (Refined mineral oil) |

10. STABILITY/REACTIVITY

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| Reactivity | : Stable under normal conditions of storage and use. |
| Chemical Stability | : Stable under normal conditions of storage and use. |
| Possibility of hazardous reactions | Under normal conditions of storage and use, hazardous reactions will not occur. |
| Conditions to Avoid | : Keep away from heat, spark and flame. |
| Incompatible materials | : strong bases strong acids |
| Hazardous decomposition products | : Vapor or toxic gas may be produced during actual use. Carbon oxide |

11. TOXICOLOGICAL INFORMATION

| Acute toxicity | : Based on the hazard classification and content ratio of the raw material, it is classified as Conclusive but not sufficient for classification, Out of category, or Data lacking. | | | | |
|---|---|-----------------|------------------|---------------------|-------------------|
| <table><tr><th>Ingredient name</th><th>LD50 (Oral, Rat)</th></tr><tr><td>Refined mineral oil</td><td>≥ 5000 mg/kg</td></tr></table> | | Ingredient name | LD50 (Oral, Rat) | Refined mineral oil | ≥ 5000 mg/kg |
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| Refined mineral oil | ≥ 5000 mg/kg | | | | |
| Skin corrosion/irritation | : Based on the hazard classification and content ratio of the raw material, it is classified as Conclusive but not sufficient for classification, Out of category, or Data lacking. | | | | |
| Serious eye damage/irritation | : Based on the hazard classification and content ratio of the raw material, it is classified. | | | | |
| Respiratory or skin sensitization | : Based on the hazard classification and content ratio of the raw material, it is classified as Conclusive but not sufficient for classification, Out of category, or Data lacking. | | | | |
| Germ cell mutagenicity | : Based on the hazard classification and content ratio of the raw material, it is classified as Conclusive but not sufficient for classification, Out of category, or Data lacking. | | | | |
| Carcinogenicity | : Crystalline silica is classified as a category 1A carcinogen, but it does not become airborne or inhaled when combined with grease as a mixture. Accordingly, it is classified as conclusive but not sufficient for classification, Out of category, 'or Data deficiency. | | | | |
| Reproductive toxicity | : Based on the hazard classification and content ratio of the raw material, it is classified as Conclusive but not sufficient for classification, Out of category, or Data lacking. | | | | |
| Specific target organ toxicity — single exposure | : Based on the hazard classification and content ratio of the raw material, it is classified as Conclusive but not sufficient for classification, Out of category, or Data lacking. | | | | |

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| Specific target organ toxicity — repeated exposure | : Based on the hazard classification and content ratio of the raw material, it is classified as Conclusive but not sufficient for classification, Out of category, or Data lacking. |
| Aspiration hazard | : Based on the hazard classification and content ratio of the raw material, it is classified as Conclusive but not sufficient for classification, Out of category, or Data lacking. |

12. ECOLOGICAL INFORMATION

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| Toxicity | : Currently, there is no useful information. |
| Persistence and degradability | : Currently, there is no useful information. |
| Bioaccumulative potential | : Currently, there is no useful information. |
| Mobility in soil | : Currently, there is no useful information. |
| Hazardous to the ozone layer | : Currently, there is no useful information. |
| Hazardous to the aquatic environment, acute toxicity | : Based on the hazard classification and content ratio of the raw material, it is classified as Conclusive but not sufficient for classification, Out of category, or Data lacking. |
| Hazardous to the aquatic environment, chronic toxicity | : Based on the hazard classification and content ratio of the raw material, it is classified as Conclusive but not sufficient for classification, Out of category, or Data lacking. |

13. DISPOSAL CONSIDERATIONS

Dispose of contents in accordance with all local, regional, national, and international regulations.
Do not puncture or incinerate container.
Dispose of waste product in a permitted industrial waste facility.
Do not dump into sewers, on the ground or into any body of water.
The product should not be allowed to enter drains or watercourses.

14. TRANSPORT INFORMATION

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|--|------------------|
| UN number | : Not applicable |
| Transport hazard class | : Not applicable |
| Transport of in accordance with laws and local regulations. Confirm no damages, corrosion and leakages of containers before transportation. Load containers in a way of no falling, overturning or damage. | |

15. REGULATORY INFORMATION

Accordance with relevant laws and local regulation.

16. OTHER INFORMATION

Complied by: SHIMANO INC.

Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. We have reviewed any information contained herein which we received from sources outside SHIMANO INC.. However, no warranty or representation, express or implied is made as to the accuracy or completeness of the data and information contained in this data sheet.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations.

No statement made in this data sheet shall be construed as a permission, recommendation or authorization given or implied to practice any patented invention without a valid license.

SHIMANO INC. shall not be responsible for any damage or injury resulting from abnormal use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material.

All materials may present unknown hazard and should be used in caution.

Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.