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## ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2020/878

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier	
Product Name	Internal Hub Grease
Unique Formula Identifier (UFI)	HM00-Q0ND-400D-FGY8
1.2 Relevant identified uses of the subs	tance or mixture and uses advised against
Identified Use(s)	Lubricant.
Uses Advised Against	Use only for intended applications.
1.3 Details of the supplier of the safety	v 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	
<b>1.4 Emergency telephone number</b> Emergency telephone	+31-402-612222 (Only available during office hours.)
0, 1	National Poisons Information Centre Beaumont Hospital
Emergency telephone	National Poisons Information Centre Beaumont Hospital PO Box 1297 Beaumont Road 9 Dublin
Emergency telephone	National Poisons Information Centre Beaumont Hospital
Emergency telephone 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)
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Emergency telephone 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) National Poisons Information Service (Newcastle Centre)

## SECTION 2: HAZARDS IDENTIFICATION

<b>2.1 Classification of the substance or miz</b> Regulation (EC) No. 1272/2008 (CLP)	<b>dure</b> Eye Dam. 1 :Causes serious eye damage.
2.2 Label elements	According to Regulation (EC) No. 1272/2008 (CLP)
Product Name	Internal Hub Grease
Hazard Pictogram(s)	GHS05



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Signal Word(s)	Danger
Hazard Statement(s)	<ul> <li>H318: Causes serious eye damage.</li> <li>Percent of the mixture consists of ingredient(s) of unknown acute toxicity: Oral (2.0-3.4))</li> <li>Dermal (2.0-3.4)) Inhalation (2.0-3.4))</li> <li>% of the mixture consists of components of unknown hazards to the aquatic environment:</li> </ul>
Precautionary Statement(s)	P280: Wear protective gloves/protective clothing/eye protection/face protection. P305+P351+P338+P310: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE/doctor.
Unique Formula Identifier (UFI) Contains:	HM00-Q0ND-400D-FGY8 Calcium dihydroxide
2.3 Other hazards	
2.4 Additional Information	This product does not contain any substances classified as PBT or vPvB. Endocrine disrupting properties : None. (This is based on information currently available.)
	For full text of H/P Statements see section 16.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Substances

Not applicable.

## 3.2 Mixtures

HAZARDOUS	CAS No.	EC No. / REACH	%W/W	Hazard Statement(s)	Hazard
INGREDIENT(S)		Registration No.			Pictogram(s)
Lubricating oils**	74869-22-0	278-012-2	70-90	Not classified	None
		01-2119495601-36-			
		xxxx			
Calcium dihydroxide	1305-62-0	215-137-3	>5, <10	Skin Irrit. 2 H315	GHS05
		01-2119475151-45-		Eye Dam. 1 H318	GHS07
		xxxx		STOT SE 3 H335	
Bentonite*	1302-78-9	215-108-5	2.5 -	Not classified	None
			4.1		
Quaternary ammonium	Confidential	Confidential	2.0 -		None
salt*			3.4		
Graphite*	7782-42-5	231-955-3	2.0 -	Not classified	None
			3.5		
Antioxidant	125643-61-0	406-040-9	0.5 -	Aquatic Chronic 4 H413	None



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			2.0		
Additive*	Confidential	Confidential	1.0 - 2.0	Not classified.	None
Quartz (SiO2)*	14808-60-7	238-878-4	<0 <u>.</u> 1	Not classified	None

#### \*: Voluntary disclosure.

#### \*\* : Note L :

The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346 'Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions — Dimethyl sulphoxide extraction refractive index method', Institute of Petroleum, London. This note applies only to certain complex oil-derived substances in Part 3.

Contains no non-classified vPvB substances.

Contains a non-classified substance with a Union workplace exposure limit. Crystalline Silica Dust (14808-60-7) For full text of H/P Statements see section 16.

#### SECTION 4: FIRST AID MEASURES

#### 4.1 Description of first aid measures

General information	Get medical attention immediately. Refer to special instructions/safety data sheet.
Inhalation	If breathing is difficult, remove victim to fresh air and keep at rest in a position
	comfortable for breathing.
Skin Contact	Wash skin with water. If symptoms develop, obtain medical attention.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present
	and easy to do. Continue rinsing. Immediately call a POISON CENTRE/doctor.
Ingestion	Wash out mouth with water. Do not induce vomiting. If symptoms develop, obtain
	medical attention.
Advice for first aider	Wear appropriate personal protective equipment, avoid direct contact.
4.2 Most important symptoms and effect	s, both acute and delayed
	Eye Contact : Causes serious eye damage. Pain, Redness, Watering of eyes.
	Skin Contact : Causes mild skin irritation. Prolonged contact may cause dryness of
	the skin.
4.3 Indication of any immediate medical	attention and special treatment needed

Unlikely to be required but if necessary treat symptomatically.

#### SECTION 5: FIREFIGHTING MEASURES

#### 5.1 Extinguishing media

Suitable Extinguishing media	Foam, Carbon dioxide, Water fog or dry powder.
Unsuitable extinguishing media	Do not use water jet.

#### 5.2 Special hazards arising from the substance or mixture

Heating may cause decomposition. May decompose in a fire giving off toxic fumes. : Carbon monoxide, Carbon dioxide



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#### 5.3 Advice for firefighters

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Evacuate the area and keep personnel upwind. Keep containers cool by spraying with water if exposed to fire.

#### SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures			
	Provide adequate ventilation. Avoid contact with skin and eyes. Wear protective		
	equipment to comply with good occupational hygiene practice. Wash hands and		
	exposed skin after use.		
6.2 Environmental precautions			
	Do not allow to enter drains, sewers or watercourses.		
6.3 Methods and material for containme	nt and cleaning up		
	Small spillages: Adsorb spillages onto sand, earth or any suitable adsorbent material.		
	Transfer to a container for disposal. Large spillages: Keep unnecessary and		
	unprotected personnel away from the spillage. Transfer to a container for disposal.		
	Seal containers and label them. Consult an accredited waste disposal contractor or		
	the local authority for advice.		
6.4 Reference to other sections			
	See Also Section 8, 13.		

#### SECTION 7: HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

General hygiene measures for the handling of chemicals are applicable. Avoid contact with skin and eyes. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands thoroughly after handling. Do not eat, drink or smoke at the work place. Keep away from food, drink and animal feedingstuffs.

#### 7.2 Conditions for safe storage, including any incompatibilities

Keep containers properly sealed when not in use.
≤ 40°C
Stable under normal conditions.
Oxidising agents.

#### Lubricant.

#### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

8.1.1 Occupational Exposure Limits

Occupational Exposu	re Limits					
SUBSTANCE.	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m³)	STEL (ppm)	STEL (mg/m³)	Note



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Calcium dihydroxide	1305-62-0	1	4	IOELV, (7.1)
Crystalline Silica Dust	14808-60-7	0.1		CM, (7.1)

Region	Source
EU	Indicative Occupational Exposure Limit Value
Remark	Notes
IOELV	Indicative Occupational Exposure Limit Values.
(7.1)	Respirable fraction.
CM	Carcinogens or Mutagens Occupational Exposure Limit Values.

#### 8.2 Exposure controls

8.2.1. Appropriate engineering controls	Provide adequate ventilation. Mechanical ventilation or local exhaust
	ventilation may be required. A washing facility/water for eye and skin cleaning
	purposes should be present.
8.2.2. Personal protection equipment	
Eye Protection	Wear protective eyewear (goggles, face shield, or safety glasses). Wear eye

•	Eye Protection	Wear protective eyewear (goggles, face shield, or safety glasses). Wear eye protection with side protection (EN ISO 16321-1). Wear chemical resistant protective eye glasses.
1	Skin protection	Wear protective clothing and gloves: Impervious gloves (EN 374). Breakthrough time of the glove material: refer to the information provided by the gloves' producer. Breakthrough time of the glove material: refer to the information provided by the gloves' producer.
9	Respiratory protection	Wear suitable respiratory protective equipment if exposure to high levels of material are likely. Recommended: Half-face mask (DIN EN 140) .Filter type : Vapour., Dust, Mist filter
	Thermal hazards	A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

8.2.3. Environmental Exposure Controls Do not allow to enter drains, sewers or watercourses.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

## 9.1 Information on basic physical and chemical properties

Physical state	Solid. Semi-solid.
Colour	Black.
Odour	Slight
Melting point/freezing point	Not known.
Boiling point or initial boiling point and	Not known.
boiling range	
Flammability	Not applicable.
Lower and upper explosion limit	Not known.
Flash Point	Not applicable.
Auto-ignition temperature	Not known.



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Decomposition Temperature	Not known.
рН	Not known.
Kinematic Viscosity	Not known.
Solubility	Solubility (Water) : Insoluble in water.
	Solubility (Other) : Not known.
Partition coefficient n-octanol/water (lo	gNot known.
value)	
Vapour pressure	Not known.
Density and/or relative density	Not known.
Relative vapour density	Not known.
Particle characteristics	Not known.
9.2 Other information	
Volatility rate	The product is non-volatile.

## SECTION 10: STABILITY AND REACTIVITY

#### 10.1 Reactivity

	Can react with - Oxidising agents.
10.2 Chemical Stability	
	Stable under normal conditions.
10.3 Possibility of hazardous reactions	
	Can react with - Oxidising agents.
10.4 Conditions to avoid	
	Heat and direct sunlight.
10.5 Incompatible materials	
	Oxidising agents.
10.6 Hazardous decomposition products	

No hazardous decomposition products known.

## SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008		
Acute toxicity - Ingestion	Calculation method : Not classified.	
	Based on available data, the classification criteria are not met.	
	Lubricating oils : LD50 (oral,rat) mg/kg: 5000-15000	
Acute toxicity - Skin Contact	Calculation method : Not classified.	
	No information available.	
Acute toxicity - Inhalation	Calculation method : Not classified.	
	No information available.	
Skin corrosion/irritation	Calculation method : Causes mild skin irritation.	
	Based on available data, the classification criteria are not met.	
Serious eye damage/irritation	Calculation method : Causes serious eye damage.	
	Causes serious eye damage.	



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Skin sensitization data	Calculation method : Not classified.
	No information available.
Respiratory sensitization data	Calculation method : Not classified.
	No information available.
Germ cell mutagenicity	Calculation method : Not classified.
	No information available.
Carcinogenicity	Calculation method : Not classified.
	Based on available data, the classification criteria are not met.
	Lubricating oils : IARC Classification: Group 3.
	Note L :
	The classification as a carcinogen need not apply if it can be shown that the
	substance contains less than 3 % DMSO extract as measured by IP 346
	'Determination of polycyclic aromatics in unused lubricating base oils and asphaltene
	free petroleum fractions — Dimethyl sulphoxide extraction refractive index method',
	Institute of Petroleum, London. This note applies only to certain complex oil-derived
	substances in Part 3.
	Quartz (SiO2) : IARC Classification: Group 1. Quartz (SiO2) is kneaded in the
	product, it does not exist as respirable particles.
Reproductive toxicity	Calculation method : Not classified.
	No information available.
Lactation	Calculation method : Not classified.
	No information available.
STOT - single exposure	Calculation method : Not classified.
	Based on available data, the classification criteria are not met.
STOT - repeated exposure	Calculation method : Not classified.
	No information available.
Aspiration hazard	Calculation method : Not classified.
	No information available.
11.2 Information on other hazards	
Route(s) of entry	Skin, Eyes, Ingestion, Inhalation, Health effects: See section 4.2.
Endocrine disrupting properties	Does not cause endocrine disruption.

SECTION 12: ECOLOGICAL INFORMATION

## 12.1 Toxicity

Toxicity - Aquatic invertebrates	Not classified.
Toxicity - Fish	Not classified.
Toxicity - Algae	Not classified.
Toxicity - Sediment Compartment	Not known.
Toxicity - Terrestrial Compartment	Not known.
12.2 Persistence and degradability	
	Not known.



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12.3 Bioaccumulative potential	
	Not known.
12.4 Mobility in soil	
	Insoluble in water. The product is non-volatile. The product is predicted to have low
12.5 Results of PBT and vPvB assessm	mobility in soil.
	This product does not contain any substances classified as PBT or vPvB.
12.6 Endocrine disrupting properties	
	Does not cause endocrine disruption.
12.7 Other adverse effects	
	Not known.
SECTION 13: DISPOSAL CONSIDERA	TIONS
13.1 Waste treatment methods	
	Dispose of this material and its container as hazardous waste. Dispose of empty
	containers and wastes safely.
13.2 Additional Information	Disposal should be in accordance with local, state or national legislation.
SECTION 14: TRANSPORT INFORMAT	ION
Not classified as hazardous for transpor	
Not classified as hazardous for transpor	
Not classified as hazardous for transpor	t.
Not classified as hazardous for transpor	t.
Not classified as hazardous for transpor	t. Not applicable
Not classified as hazardous for transpor 14.1 UN number or ID number 14.2 UN proper shipping name	t. Not applicable
Not classified as hazardous for transpor 14.1 UN number or ID number 14.2 UN proper shipping name	t. Not applicable Not applicable
Not classified as hazardous for transpor 14.1 UN number or ID number 14.2 UN proper shipping name 14.3 Transport hazard class(es)	t. Not applicable Not applicable
Not classified as hazardous for transpor 14.1 UN number or ID number 14.2 UN proper shipping name 14.3 Transport hazard class(es)	k. Not applicable Not applicable Not applicable
<ul> <li>Not classified as hazardous for transpor</li> <li>14.1 UN number or ID number</li> <li>14.2 UN proper shipping name</li> <li>14.3 Transport hazard class(es)</li> <li>14.4 Packing group</li> </ul>	t. Not applicable Not applicable
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<ul> <li>Not classified as hazardous for transpor</li> <li>14.1 UN number or ID number</li> <li>14.2 UN proper shipping name</li> <li>14.3 Transport hazard class(es)</li> <li>14.4 Packing group</li> <li>14.5 Environmental hazards</li> <li>14.6 Special precautions for user</li> </ul>	k. Not applicable Not applicable Not applicable Not applicable Not classified as a Marine Pollutant. Not known
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## SECTION 15: REGULATORY INFORMATION

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

European Regulations - Authorisations and/or Restrictions On Use

# SHIMANO

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Candidate List of Substances of Very High Not listed Concern for Authorisation REACH: ANNEX XIV list of substances Not listed subject to authorisation REACH: Annex XVII Restrictions on the Not listed manufacture, placing on the market and use of certain dangerous substances, mixtures and articles Community Rolling Action Plan (CoRAP) Not listed Regulation (EU) N° 2019/1021 of the Not listed European Parliament and of the Council on persistent organic pollutants Regulation (EC) N° 1005/2009 on Not listed substances that deplete the ozone layer Regulation (EU) N° 649/2012 of the Not listed European Parliament and of the Council concerning the export and import of hazardous chemicals National regulations Other Not known 15.2 Chemical Safety Assessment A REACH chemical safety assessment has not been carried out.

SECTION 16: OTHER INFORMATION	
The following sections contain revisions	1, 2, 3, 11, 12, 16
or new statements:	
Training advice:	Ensure operatives are trained to minimise exposure. Only trained personnel should
	use this material.
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Revision:	4

LEGEND

Hazard Pictogram(s)



GHS07: GHS: Exclamation mark

Hazard classification

Skin Irrit. 2 : Skin corrosion/irritation, Category 2 Eye Dam. 1 : Serious eye damage/irritation, Category 1 STOT SE 3 : Specific target organ toxicity — single exposure, Category 3



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	Aquatic Chronic 4 : Hazardous to the aquatic environment, Chronic, Category 4
Hazard Statement(s)	H315: Causes skin irritation.
	H318: Causes serious eye damage.
	H335: May cause respiratory irritation.
	H413: May cause long lasting harmful effects to aquatic life.
Precautionary Statement(s)	P280: Wear protective gloves/protective clothing/eye protection/face protection. P305+P351+P338+P310: IF IN EYES: Rinse cautiously with water for several
	minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	Immediately call a POISON CENTRE/doctor.
Acronyms	ATE : Acute Toxicity Estimate
Actoryma	CAS : Chemical Abstracts Service
	CLP : Regulation (EC) No 1272/2008 on classification, labelling and packaging of
	substances and mixtures
	DNEL : Derived No Effect Level
	EC : European Community
	EINECS : European Inventory of Existing Commercial Chemical Substances
	LTEL : Long term exposure limit
	PBT : Persistent, Bioaccumulative and Toxic
	PNEC : Predicted No Effect Concentration
	REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals
	STEL : Short term exposure limit
	STOT : Specific Target Organ Toxicity
	vPvB : very Persistent and very Bioaccumulative
Key literature references and sources t	or Regulation (EC) No. 1272/2008 (CLP)
data used to compile the SDS	

Disclaimers

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.