

**Safety Data Sheet**

according to UK REACH Regulation

**4BNo.2**

Revision date: 07.02.2022

Product code: HD-002

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

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

Grease

Reserved for industrial and professional use.

**Uses advised against**

The product is only to be used for the intended application.

**1.3. Details of the supplier of the safety data sheet****Manufacturer**

Company name:	Harmonic Drive SE	
Street:	Hoenbergstraße 14	
Place:	D-65555 Limburg	
Telephone:	+49 6431 5008-0	Telefax: +49 6431 5008-119
e-mail:	info@harmonicdrive.de	
e-mail (Contact person):	customercare@harmonicdrive.de	
Internet:	www.harmonicdrive.de	

**Supplier**

Company name:	Harmonic Drive UK Limited
Street:	Unit 36, Wolseley Court
Place:	GB Stafford ST 18 0GA
Telephone:	+44-1785-245190
e-mail:	info@harmonicdrive.co.uk
Contact person:	Graham Mackrell

**1.4. Emergency telephone number:**

Emergency Action: In the event of a medical enquiry involving this product, please contact your doctor or local hospital accident and emergency department or the NHS enquiry service.

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****GB CLP Regulation**

Resp. Sens. 1; H334

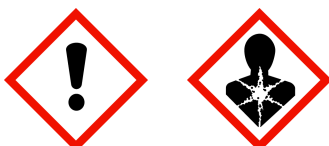
Skin Sens. 1; H317

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****GB CLP Regulation****Hazard components for labelling**

N,N"-(methylenedi-4, 1-phenylene)bis[N'-octyl]urea

Dihydro-3-(tetrapropenyl)furan-2,5-dione

**Signal word:** Danger**Pictograms:**

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**Hazard statements**

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
 H317 May cause an allergic skin reaction.

**Precautionary statements**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
 P280 Wear protective gloves.  
 P284 In case of inadequate ventilation wear respiratory protection.  
 P302+P352 IF ON SKIN: Wash with plenty of water.  
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.  
 P501 Dispose of contents/container to an appropriate recycling or disposal facility.

**2.3. Other hazards**

Although not classified as "combustible" (based on flash point and ignition properties) this product can be made to burn and will serve as a fuel source for a fire. Thermal decomposition can lead to harmful gases and vapours Special danger of slipping by leaking/spilling product.

The components in this mixture do not meet the criteria for classification as PBT or vPvB.

**SECTION 3: Composition/information on ingredients**
**3.2. Mixtures**
**Hazardous components**

CAS No	Chemical name	Quantity
	EC No	Index No
	REACH No	
	Classification (GB CLP Regulation)	
-	N,N''-(methylenedi-4,1-phenylene)bis[N'-octyl]urea	5 - <10 %
	445-760-8	006-103-00-7
	01-2120106785-55	
	Eye Dam. 1, Resp. Sens. 1, Aquatic Acute 1, Aquatic Chronic 1; H318 H334 H400 H410	
71735-74-5	Ethyl 3-[[bis(1-methylethoxy)phosphinothioyl]thio]propionate	5 - <10 %
	275-965-6	
	Aquatic Chronic 2; H411	
84605-29-8	Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts	1 - <3 %
	283-392-8	01-2119493626-26
	Skin Irrit. 2, Eye Dam. 1, Aquatic Chronic 2; H315 H318 H411	
68411-46-1	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	1 - <3 %
	270-128-1	01-2119491299-23
	Aquatic Chronic 3; H412	
26544-38-7	Dihydro-3-(tetrapropenyl)furan-2,5-dione	<1 %
	247-781-6	01-2119979080-37
	Eye Irrit. 2, Skin Sens. 1A, Aquatic Chronic 4; H319 H317 H413	

Full text of H and EUH statements: see section 16.

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#### Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
-	445-760-8	N,N"-(methylenedi-4,1-phenylene)bis[N'-octyl]urea	5 - <10 %
	M acute; H400: M=100 M chron.; H410: M=100		
84605-29-8	283-392-8	Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts	1 - <3 %
	Skin Irrit. 2; H315: >= 6,25 - 100 Eye Dam. 1; H318: >= 12,5 - 100 Eye Irrit. 2; H319: >= 10 - < 12,5		
26544-38-7	247-781-6	Dihydro-3-(tetrapropenyl)furan-2,5-dione	<1 %
	Skin Sens. 1A; H317: >= 0,1 - 100		

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### General information

First aider: Pay attention to self-protection!

##### After inhalation

Remove affected person from the danger area and lay down. Provide fresh air. If victim is at risk of losing consciousness, position and transport on their side. In case of breathing difficulties administer oxygen. In case of troubles or persistent symptoms, consult an doctor/physician. In case of allergic symptoms, especially in the breathing area, seek medical advice immediately.

##### After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Change contaminated clothing. In case of skin irritation, consult a physician.

##### After contact with eyes

Remove contact lenses. In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. In case of troubles or persistent symptoms, consult an ophthalmologist.

##### After ingestion

Rinse mouth, spit liquid again. Do NOT induce vomiting. Let water be drunken in little sips (dilution effect). Seek medical attention if problems persist. Caution if victim vomits: Risk of aspiration!

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

Frequently or prolonged contact with skin may cause dermal irritation. May cause eye irritations. The mixture may cause allergic reactions or irritation of the respiratory tract.

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

##### Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.  
Carbon dioxide (CO<sub>2</sub>). Foam. Extinguishing powder. Water fog.

##### Unsuitable extinguishing media

High power water jet.

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

In case of fire may be liberated: Carbon monoxide. Carbon dioxide (CO<sub>2</sub>).  
Although not classified as "combustible" (based on flash point and ignition properties) this product can be made to burn and will serve as a fuel source for a fire. Sealed containers may melt, leak, burst or explode, releasing contents and spreading fire, if exposed to extreme heat.

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**5.3. Advice for firefighters**

If necessary use self-contained breathing apparatus and protective clothing.

**Additional information**

Do not allow to enter into surface water or drains. Use water spray jet to protect personnel and to cool endangered containers.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Consider the usual precautions for handling chemicals. Avoid contact with skin, eyes and clothes. Wear personal protection equipment. Keep away from sources of ignition - No smoking. Special danger of slipping by leaking/spilling product.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

**6.3. Methods and material for containment and cleaning up****For containment**

Take up mechanically, placing in appropriate containers for disposal. Treat the recovered material as prescribed in the section on waste disposal.

**For cleaning up**

Clean contaminated articles and floor according to the environmental legislation.

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

High slip hazard because of leaking or spilled product. Provide adequate ventilation. Avoid contact with skin, eyes and clothes. Keep away from sources of ignition - No smoking. Take action to prevent static discharges.

**Advice on general occupational hygiene**

Avoid contact with skin, eyes and clothes. Remove contaminated, saturated clothing immediately. Protect skin by using skin protective cream. After work, wash hands and face. When using do not eat or drink.

**Further information on handling**

When using do not eat, drink, smoke, sniff.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed. The storage rooms must be suitable for storing chemical and flammable products.

**Hints on joint storage**

Store separately from oxidizing agents.

**Further information on storage conditions**

Keep away from: Heat sources, open flames and other ignition sources. Protect from sunlight. Store in a well-ventilated place.

**7.3. Specific end use(s)**

Grease

Reserved for industrial and professional use.

**SECTION 8: Exposure controls/personal protection**

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#### 8.1. Control parameters

##### Additional advice on limit values

Currently there are no exposure limits available.

#### 8.2. Exposure controls

##### Appropriate engineering controls

Provide for sufficient ventilation and punctiform suction at critical points.

##### Individual protection measures, such as personal protective equipment

##### Eye/face protection

Tightly sealed safety glasses.

##### Hand protection

Protect skin by using skin protective cream. In case of prolonged or frequently repeated skin contact: Wear chemically resistant gloves.

Suitable material: NBR (Nitrile rubber). PVC (Polyvinyl chloride).

penetration time (maximum wearing period): >480 minutes

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

##### Skin protection

Full cover clothing covering arms and legs. Change contaminated clothing.

##### Respiratory protection

Usually no personal respirative protection necessary. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

## SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state:	solid	
Colour:	yellow	
Odour:	like: Mineral oil	
Melting point/freezing point:		no data available
Boiling point or initial boiling point and boiling range:		no data available
Flammability		
Solid/liquid:		no data available
Gas:		no data available
Lower explosion limits:		no data available
Upper explosion limits:		no data available
Flash point:		175 °C
Auto-ignition temperature:		no data available
Decomposition temperature:		no data available
pH-Value:		no data available
Viscosity / kinematic:		no data available
Water solubility:		practically insoluble
Solubility in other solvents		
no data available		
Partition coefficient n-octanol/water:		no data available
Vapour pressure:		no data available
Density:		0,87 g/cm <sup>3</sup>
Relative vapour density:		no data available

#### 9.2. Other information

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**Information with regard to physical hazard classes**

Explosive properties

no data available

Self-ignition temperature

Solid:

no data available

Gas:

no data available

Oxidizing properties

no data available

**Other safety characteristics**

Solvent separation test:

no data available

Solvent content:

no data available

Sublimation point:

no data available

Softening point:

no data available

Viscosity / dynamic:

no data available

**Further Information**

no data available

**SECTION 10: Stability and reactivity****10.1. Reactivity**

No dangerous reactivity under regular conditions.

**10.2. Chemical stability**

The product is stable under regular conditions.

**10.3. Possibility of hazardous reactions**

No dangerous reactions to be expected if used properly.

**10.4. Conditions to avoid**

Heat sources, open flames and other ignition sources.

**10.5. Incompatible materials**

Oxidizing agents, strong.

**10.6. Hazardous decomposition products**

In case of fire may be liberated: Carbon monoxide. Carbon dioxide. Irritating/poisonous gasses and vapours.

**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in GB CLP Regulation****Acute toxicity**

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

**Irritation and corrosivity**

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

The classification was made based on available test data.

Serious eye damage, Category 1: no classification (OECD 405)

Eye irritation, Category 2: no classification (OECD 405)

Frequently or prolonged contact with skin may cause dermal irritation. Repeated exposure may cause skin dryness or cracking.

**Sensitising effects**

May cause allergy or asthma symptoms or breathing difficulties if inhaled. (N,N"-(methylenedi-4,1-phenylene)bis[N'-octyl]urea)

May cause an allergic skin reaction. (Dihydro-3-(tetrapropenyl)furan-2,5-dione)

**Carcinogenic/mutagenic/toxic effects for reproduction**

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

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**STOT-single exposure**

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

**STOT-repeated exposure**

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

**Aspiration hazard**

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

**11.2. Information on other hazards****Endocrine disrupting properties**

none known

**SECTION 12: Ecological information****12.1. Toxicity**

The product is not to be classified with regard to its ecotoxicity on the basis of test results (OECD 201).

**12.2. Persistence and degradability**

No data available

**12.3. Bioaccumulative potential**

No data available

**12.4. Mobility in soil**

No data available

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**12.7. Other adverse effects**

No data available.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.  
Empty containers must be recycled, reused or disposed by qualified or licensed companies in accordance with the applicable regulations.

**List of Wastes Code - residues/unused products**

070699 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics; wastes not otherwise specified

**List of Wastes Code - used product**

070699 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics; wastes not otherwise specified

**Contaminated packaging**

Handle contaminated packages in the same way as the substance itself.  
Recommended cleaning agent: Water (with cleaning agent)

**SECTION 14: Transport information****Land transport (ADR/RID)****14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:**

No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):**

No dangerous good in sense of this transport regulation.

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**14.4. Packing group:** No dangerous good in sense of this transport regulation.

**Inland waterways transport (ADN)**

**14.1. UN number or ID number:** No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.

**14.4. Packing group:** No dangerous good in sense of this transport regulation.

**Marine transport (IMDG)**

**14.1. UN number or ID number:** No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.

**14.4. Packing group:** No dangerous good in sense of this transport regulation.

**Air transport (ICAO-TI/IATA-DGR)**

**14.1. UN number or ID number:** No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.

**14.4. Packing group:** No dangerous good in sense of this transport regulation.

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

No special precautions known.

**14.7. Maritime transport in bulk according to IMO instruments**

not applicable

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 75

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

**Additional information**

Regulation (EC) No. 648/2004 [Detergents regulation]: not applicable

Regulation (EC) No. 1005/2009 on substances that lead to the depletion of the ozone layer: not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants: not applicable

Regulation (EC) No 649/2012 of the European Parliament and of the Council concerning the export and import of dangerous chemicals: This mix contains no chemicals that are subject to the export notification procedures (annex 1).

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: none

This mixture contains the following substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH: none

**National regulatory information**

Water hazard class (D): 3 - highly hazardous to water

**Additional information**

Observe in addition any national regulations!

**15.2. Chemical safety assessment**

For the following substances of this mixture a chemical safety assessment has been carried out:

N,N''-(methylenedi-4,1-phenylene)bis[N'-octyl]urea

Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts



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Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene

## SECTION 16: Other information

### Changes

Version 1,00 - 07.02.2022 - first creation

### Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

BImSchV (Fed.Imm.Prot.Act): Directive on the Implementation of the Federal Immission Protection Act

CAS: Chemical Abstracts Service

DIN: Norm of the Deutsche Institut für Normung (German Institute for Standardization)

EC: Effective Concentration

EG: European Community (Europäische Gemeinschaft)

EN: European Norm

IATA: International Air Transport Association

IBC Code: International Code for the Construction and Equipment of ships carrying Dangerous Chemicals in Bulk

ICAO: International Civil Aviation Organization

IMDG: International Maritime Code for Dangerous Goods

ISO: Norm of the International Standards Organization

CLP: Classification, Labeling, Packaging

IUCLID: International Uniform Chemical Information Database

LC: Lethal concentration

LD: Lethal dose

log Kow: Octanol/water partition coefficient

MARPOL: Maritime Pollution Convention = Convention for the Prevention of Maritime Pollution from Ships

OECD: Organisation for Economic Co-operation and Development

PBT: Persistent, bio-cumulative, toxic

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail

TRGS: Technische Regeln für Gefahrstoffe

UN: United Nations

VOC: Volatile Organic Compounds

vPvB: very persistent and very bio-cumulative

VwVwS: Administrative Regulation for Water Pollutants

WGK: German Water Hazard Class

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

DNEL: Derived No Effect Level

PNEC: Predicted No Effect Concentration

TLV: Threshold Limiting Value

STOT: Specific Target Organ Toxicity

AwSV: Ordinance on Installations for Handling Substances Hazardous to Water

### Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Resp. Sens. 1; H334	Calculation method
Skin Sens. 1; H317	Calculation method

### Relevant H and EUH statements (number and full text)

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

**Further Information**

The information given in this safety data sheet is to describe the product's safety regulations. It is not for guaranteeing certain characteristics and is based on today's knowledge. The safety data sheet was generated upon information of pre-suppliers by:

assesso AG, Ottostraße 1, 63741, Aschaffenburg, Germany

Phone: +49 (0)6021 - 1 50 86-0, Fax: +49 (0)6021 - 1 50 86-77, E-Mail: eu-sds@assesso.eu, www.assesso.eu

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*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*