





Flexolub-M0 Safety Data Sheet EN			Dok Nr./ <i>Doc No.</i>	Art/ <i>Type</i>	Teildok/ <i>Doc Part</i>	Version/ <i>Version</i>	 Harmonic Drive AG
			50054928	HEZ	001	00	
	Datum/ <i>Date</i>	Name/ <i>Name</i>	Unterschrift/ <i>Signature</i>			Harmonic Drive AG Hoenbergstraße 14 65555 Limburg a. d. Lahn DEUTSCHLAND	
Erstellt/ <i>Prepared</i>	22.10.2015	HAHN					
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00	22.10.2015	HAHN	-	Basis: Dokument des Schmierstoffherstellers mit Druckdatum 2.4.2015, Bearbeitungsdatum 2.4.2015, Version 1.0.0. Dokument in PLM System aufgenommen.

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Date of print: 02.04.2015

Revision Date: 02.04.2015

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

1.1 Product identifier:

FLEXOLUB-M0

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

Relevant identified uses

Product categories [PC]: PC24 - Lubricants, greases, release products

1.3 Details of the supplier of the safety data sheet

Supplier (manufacturer/ importer/ only representative/ downstream user/ distributor)

Harmonic Drive AG
Hoenbergstr. 14
65555 Limburg
Germany

Tel.: +49-6431-5008-0

Fax: +49-6431-5008-119

E-mail: customercare@harmonicdrive.de


1.4 Emergency Telephone Number: Tel.: +49-6431-5008-0

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC: None

Classification according to Regulation (EC) No. 1272/2008 [CLP]: None

Flexolub-M0 Safety Data Sheet EN	Dok Nr./ <i>Doc No.</i>	Art/ <i>Type</i>	Teildok/ <i>Doc Part</i>	Version/ <i>Version</i>	 Harmonic Drive AG
	50054928	HEZ	001	00	
Verwendungskl./ <i>Classification</i> Extern / <i>External</i>					Seite/Anzahl <i>Page/Total</i> 2/7

2.2 Label elements

Labelling (67/548/EEC or 1999/45/EC)

Special provisions concerning the labelling of certain mixtures

99 Contains 2,5-bis (tert-nonyldithio) -1,3,4-thiadiazole. May produce an allergic reaction.

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

Special rules for supplemental label elements for certain mixtures

EUH208 Contains 2,5-bis (tert-nonyldithio) -1,3,4-thiadiazole. May produce an allergic reaction.

2.3 Other hazards: None

SECTION 3: Composition/ information on ingredients

3.1 -

3.2 Mixtures

Hazardous ingredients

2,5-bis (tert-nonyldithio) -1,3,4-thiadiazole; EC No: 289-493-3; CAS No.: 89347-09-1

Weight fraction: < 0,5 %

Classification 67/548/EEC: R43

Classification 1271/2008 [CLP]: Skin Sens. 1; H317

2,6-DI-TERT-BUTYL-P-CRESOL; REACH registration No.: 01-2119555270-46-xxxx; EC No.: 204-881-4; CAS No.: 128-37-0

Weight fraction: < 0,5 %

Classification 67/548/EEC: N; R51/53 Xn; R22 Xi; R36

Classification 1271/2008 [CLP]: Acute Tox. 4; H302 Eye Irrit. 2; H319 Aquatic Chronic 2; H411

Further ingredients

Ester oil

Inorganic solid compounds

Additives, not to declare

Additional information

Full text of R-, H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information: When in doubt or if symptoms are observed, get medical advice.

After inhalation: Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. In case of respiratory tract irritation, consult a physician.


In case of skin contact: Remove contaminated, saturated clothing immediately. Wash immediately with: Water and soap. In case of skin irritation, consult a physician.

After eye contact: Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

After ingestion: Rinse mouth immediately and drink plenty of water. Let water be drunken in little sips (dilution effect). Get medical advice/ attention if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

No information available.

Flexolub-M0 Safety Data Sheet EN	Dok Nr./ <i>Doc No.</i>	Art/ <i>Type</i>	Teildok/ <i>Doc Part</i>	Version/ <i>Version</i>	 Harmonic Drive AG
	50054928	HEZ	001	00	
Verwendungskl./ <i>Classification</i> Extern / <i>External</i>					Seite/Anzahl <i>Page/Total</i> 3/7

4.3 Indication of any immediate medical attention and special treatment needed: None

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Dry extinguishing powder. Carbon dioxide (CO₂). ABC-powder BC-powder Foam. Dry sand.

Unsuitable extinguishing media: Water. Strong water jet. High power water jet.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products Carbon monoxide. Carbon dioxide (CO₂). Burning produces heavy smoke.

5.3 Advice for firefighters

Use suitable breathing apparatus.

5.4 Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

Special danger of slipping by leaking/ spilling product.

6.1 Personal precautions, protective equipment and emergency procedures: None

6.2 Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Ensure waste is collected and contained. Make sure spills can be contained, e.g. in sump pallets or kerbed areas.

6.3 Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal. Soak up inert absorbent and dispose as waste requiring special attention. Suitable material for taking up: Universal binder Kieselguhr.

6.4 Reference to other sections: None

SECTION 7: Handling and storage



7.1 Precautions for safe handling

Protective measures

It is recommended to design all work processes always so that the following is excluded: Generation/ formation of mist. Avoid: Inhalation of vapours or spray/ mists, skin contact, eye contact. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff.

7.2 Conditions for safe storage, including any incompatibilities


Hints on joint storage

Storage class: 11

Storage class (TRGS 510): 11

Keep away from: Food and feedingstuffs

Further information on storage conditions

Flexolub-M0 Safety Data Sheet EN	Dok Nr./ <i>Doc No.</i>	Art/ <i>Type</i>	Teildok/ <i>Doc Part</i>	Version/ <i>Version</i>	 Harmonic Drive AG
	50054928	HEZ	001	00	
Verwendungskl./ <i>Classification</i> Extern / <i>External</i>					Seite/Anzahl <i>Page/Total</i> 4/7

Keep/ store only in original container. Keep container tightly closed. Protect against UV-radiation/ sunlight. Humidity. Contact with air/ oxygen. Dust deposits.

7.3 Specific end use(s): None

SECTION 8: Exposure controls/personal protection

Keep away from food, drink and animal feeding stuffs. Wash hands before breaks and after work. Take the precautions customary when handling chemicals. Change contaminated, saturated clothing. Keep away from sources of ignition. – No smoking.

8.1 Control parameters

Occupational exposure limit values

2,6-DI-TERT-BUTYL-P-CRESOL; CAS No.: 128-37-0

Limit value type (country of origin): TRGS 900 (D)

Parameter: E: respirable fraction

Limit value: 10 mg/m³

Peak limitation: 4(II)

Remark: Y

Version: 01.09.2012

8.2 Exposure controls

Personal protection equipment

Eye/ face protection

Eye protection: Not applicable. Avoid: Eye contact.

Recommended eye protection articles: DIN EN 166

Skin protection

Hand protection: Hand protection is not required.

By long-term hand contact: Wear suitable gloves.

Suitable material: NBR (Nitrile rubber). Butyl caoutchouc (butyl rubber).

Recommended glove articles: DIN EN 374 DIN EN 420

Respiratory protection

No special measures are necessary. Avoid: Inhalation of vapours or spray/ mists


SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Colour: dark green

Safety relevant basis data

Physical state:				pasty
Boiling temperature/ range:	(1013 hPa)	>		300 °C
Decomposition temperature:	(1013 hPa)	>		250 °C
Flash point:	(1013 hPa)	>		200 °C
Vapour pressure:	(50 °C)	<		1 hPa
Density:	(20 °C)	=		0,933 g/cm ³

Flexolub-M0 Safety Data Sheet EN	Dok Nr./ <i>Doc No.</i>	Art/ <i>Type</i>	Teildok/ <i>Doc Part</i>	Version/ <i>Version</i>	 Harmonic Drive AG
	50054928	HEZ	001	00	
Verwendungskl./ <i>Classification</i> Extern / <i>External</i>					Seite/Anzahl <i>Page/Total</i> 5/7

9.2 Other information: None

SECTION 10: Stability and reactivity

10.1 Reactivity: No information available.

10.2 Chemical stability: The product is stable.

10.3 Possibility of hazardous reactions: Strong acid/ strong alkali.

10.4 Conditions to avoid: No information available.

10.5 Incompatible materials: Oxidising agent, strong.

10.6 Hazardous decomposition products

Carbon monoxide. Carbon dioxide (CO₂). Gases/ vapours, harmful.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

By analogy

Acute effects

Acute oral toxicity

Parameter: LD50
Exposure route: Oral
Species: Rat
Effective dose: > 2000 mg/kg

Acute dermal toxicity

Parameter: LD50
Exposure route: Dermal
Species: Rabbit
Effective dose: > 2000 mg/kg


SECTION 12: Ecological information

12.1 Toxicity: No information available.

12.2 Persistence and degradability

Biodegradation

Analytical method: Biodegradation
Parameter: Degree of elimination
Type: Aerobic
Degradation rate: > 70 Wt %
Time: 21 d
Evaluation: Readily biodegradable (according to OECD criteria).

Flexolub-M0 Safety Data Sheet EN	Dok Nr./ <i>Doc No.</i>	Art/ <i>Type</i>	Teildok/ <i>Doc Part</i>	Version/ <i>Version</i>	 Harmonic Drive AG
	50054928	HEZ	001	00	
Verwendungskl./ <i>Classification</i> Extern / <i>External</i>					Seite/Anzahl <i>Page/Total</i> 6/7

12.3 Bioaccumulative potential: No information available.

12.4 Mobility in soil: No information available.

12.5 Results of PBT and vPvB assessment: No information available.

12.6 Other adverse effects: No information available.

12.7 Further ecological information: None

12.8 Overall evaluation: Moderately/ partially biodegradable.

SECTION 13: Disposal considerations

Dispose according to legislation. The allocation of waste identity numbers/ waste descriptions must be carried out according to the EEC, specific to the industry and process.

13.1 Waste treatment methods

Send to a hazardous waste incinerator facility under observation of official regulations. Collect the waste separately. Evidence for disposal must be provided.

SECTION 14: Transport information

14.1 UN number: No dangerous goods in sense of this transport regulation.

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

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

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

14.5 Environmental hazards: No dangerous goods in sense of this transport regulation.

14.6 Special precautions for user: None

SECTION 15: Regulatory information

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

National regulations

Emission control act (TA-Luft): Weight fraction (Number 5.2.5. I): < 1 %

Water hazard class (WGK)

Class: 1 (Slightly hazardous to water), classification according to VwVwS

15.2 Chemical safety assessment: No information available.

SECTION 16: Other information

16.1 Indication of changes: None

16.2 Abbreviations and acronyms: None

16.3 Key literature references and sources for data: None

16.4 Relevant R-, H- and EUH-phrases (Number and full text)

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.


H411 Toxic to aquatic life with long lasting effects.

22 Harmful if swallowed.

36 Irritating to eyes.

43 May cause sensitization by skin contact.

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Flexolub-M0 Safety Data Sheet EN	Dok Nr./ Doc No.	Art/ Type	Teildok/ Doc Part	Version/ Version	 Harmonic Drive AG
	50054928	HEZ	001	00	
Verwendungskl./ Classification Extern / External					Seite/Anzahl Page/Total 7/7

16.5 Training advice: None

16.6 Additional information: None

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.