Safety Data Sheet

according to Regulation (EU) No. 2015/830

Date of issue: 01/06//2017 Revision date: 04/10//2019 Version: 2.0

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

1.1. Product identifier

Product name : HARMONIC GREASE SK-1A

Product code : Not available

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

1.2.1. Relevant identified uses

Main use category : Consumer use, Industrial use

Uses advised against No specific uses advised against are identified..

Use of the substance/mixture : Lubricating grease

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Harmonic Drive AG Hoenbergstrasse 14 65555 Limburg - Germany T +49-6431-5008-0 F +49-6431-5008-119

customercare@harmonicdrive.de

1.4. Emergency telephone number

Emergency number : +49-6431-5008-0

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Not classified.

2.2. Label elements

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

Unknown acute toxicity (CLP) - SDS : 7% of the mixture consists of ingredient(s) of unknown acute toxicity

2.3. Other hazards

Unknown hazards to the aquatic environment (CLP): Contains 7 % of components with unknown hazards to the aquatic environment

SECTION 3: Composition/information on ingredients

Substance/ Mixture: Mixture

Not applicable

Additional information:

Refined mineral base oil (Note L applies to the refined mineral base oil. 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.)

unconscious person.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

breatning. Get medical advice/attention if you feel unwell.

First-aid measures after skin contact : If irritation occurs, flush skin with plenty of water. Get medical attention if irritation persists.

First-aid measures after eye contact : In case of contact, immediately flush eyes with plenty of water. Remove contact lenses, if worn.

If irritation persists, get medical attention.

If irritation persists, get medical attentio

First-aid measures after ingestion : If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Never give anything by mouth to an

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

Symptoms/injuries after inhalation : May cause respiratory tract irritation.

Symptoms/injuries after skin contact : May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the

skin.

Symptoms/injuries after eye contact : May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear

production, with possible redness and swelling.

04/10/2019 EN (English) 1/5

Safety Data Sheet

according to Regulation (EU) No. 2015/830

: May be harmful if swallowed. May cause stomach distress, nausea or vomiting. Symptoms/injuries after ingestion

Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately.

SECTION 5: Firefighting measures

Extinguishing media 5.1.

Suitable extinguishing media : Foam, Dry chemical, Carbon dioxide.

Unsuitable extinguishing media : Do not use water jet.

Special hazards arising from the substance or mixture 52

Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon. Oxides of sulfur.

5.3. Advice for firefighters

Protection during firefighting Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory

protection (SCBA).

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to

unnecessary and unprotected personnel.

Environmental precautions

Keep out of drains, sewers, ditches, and waterways. Minimize use of water to prevent environmental contamination.

Methods and material for containment and cleaning up

For containment : Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable

container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal

Protective Equipment (PPE).

: Vacuum or sweep material and place in a disposal container. Provide ventilation. Methods for cleaning up

6.4. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

SECTION 7: Handling and storage

Precautions for safe handling

: Avoid contact with skin and eyes. Avoid breathing vapour or mist. Do not swallow. Handle and Precautions for safe handling

open container with care. When using do not eat, drink or smoke.

: Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking. Hygiene measures

Conditions for safe storage, including any incompatibilities

Storage conditions Keep out of the reach of children. Keep container tightly closed. Store in a dry, cool and well-

ventilated area. Protect from sunlight.

Specific end use(s) 7.3.

Not available.

SECTION 8: Exposure controls/personal protection

Control parameters

No additional information available

Exposure controls

Appropriate engineering controls Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below

recommended exposure limits.

Hand protection Wear suitable gloves.

Eye protection Safety glasses or goggles are recommended when using product.

Skin and body protection Wear suitable protective clothing.

In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection Respiratory protection

must be based on known or anticipated exposure levels, the hazards of the product and the

safe working limits of the selected respirator.

Environmental exposure controls : Maintain levels below Community environmental protection thresholds.

Do not eat, smoke or drink where material is handled, processed or stored. Wash hands Other information carefully before eating or smoking. Handle according to established industrial hygiene and

safety practices

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Smooth semi-solid

04/10/2019 EN (English) 2/5

Safety Data Sheet

according to Regulation (EU) No. 2015/830

Colour : Yellow. Odour : Bland.

Odour threshold : No data available pH : No data available Relative evaporation rate (butylacetate=1) : No data available Melting point : No data available Freezing point : No data available Boiling point : No data available : No data available

Flash point : $> 160 \, ^{\circ}\text{C} \, (> 320 \, ^{\circ}\text{F}) \, (\text{SETA})$

Auto-ignition temperature : No data available Decomposition temperature : No data available Flammability (solid, gas) Not flammable : No data available Vapour pressure Relative vapour density at 20 °C : No data available 0.92 at 25 °C (77 °F) Relative density Solubility Water: Negligible. Partition coefficient: n-octanol/water : No data available

Viscosity, kinematic : > 20 mm²/s at 40 °C (104 °F)

Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidising properties : No data available
Explosive limits : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under normal storage conditions.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Heat. Incompatible materials. Sources of ignition.

10.5. Incompatible materials

Acids. Oxidizing agent. Hydrogen peroxide. Permanganates. Perchlorates. Halogens. Halogenated compounds.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. Oxides of sulfur.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified.

HARMONIC GREASE SK-1A	
LD50 oral rat	> 2000 mg/kg(Base oil)
LD50 dermal rabbit	> 2000 mg/kg(Base oil)
LC50 inhalation rat	No data available

: No further relevant information available. Skin corrosion/irritation No further relevant information available. Serious eye damage/irritation : No further relevant information available. Respiratory or skin sensitisation Germ cell mutagenicity : No further relevant information available. Carcinogenicity : No further relevant information available. : No further relevant information available. Reproductive toxicity Specific target organ toxicity (single exposure) No further relevant information available. No further relevant information available. Specific target organ toxicity (repeated exposure) Aspiration hazard : No further relevant information available.

04/10/2019 EN (English) 3/5

Safety Data Sheet

according to Regulation (EU) No. 2015/830

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : No further relevant information available.

12.2. Persistence and degradability

HARMONIC GREASE SK-1A

Persistence and degradability Not established.

12.3. Bioaccumulative potential

HARMONIC GREASE SK-1A

Bioaccumulative potential Not established.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations

: This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.

SECTION 14: Transport information

In accordance with ADR

14.1. UN number

DOT,ADR,IMDG,IATA: Not regulated

14.2. UN proper shipping name

DOT,ADR,IMDG,IATA: Not regulated

14.3. Transport hazard class(es)

DOT,ADR,IMDG,IATA: Not regulated

14.4. Packing group

DOT,ADR,IMDG,IATA: Not regulated

14.5. Environmental hazards

Dangerous for the environment : No Marine pollutant : No

Other information : No supplementary information available.

14.6. Special precautions for user

Special transport precautions : Do not handle until all safety precautions have been read and understood.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no substances with Annex XVII restrictions

Contains no REACH candidate substance.

Contains no REACH Annex XIV substances

Contains no CLP regulation substances

15.1.2. National regulations

Germany

Water hazard class (WGK) : 1 - low hazard to waters

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

04/10/2019 EN (English) 4/5

Safety Data Sheet

according to Regulation (EU) No. 2015/830

SECTION 16: Other information

Indication of changes: Formulation Revision

Data sources : 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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending

Regulation (EC) No 1907/2006.

Other information : None.

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04/10/2019 EN (English) 5/5