

POLYLUB GA 352 P

Adhesive long-term grease with good water resistance



Description

POLYLUB GA 352 P is an aluminium complex thickened grease incorporating a semi synthetic base oil.

This special grease shows good adhesion as well as excellent resistance to cold and hot water. It has been authorized by FDA (US Food and Drug Administration) for use as USDA H2 lubricant in the food-processing industry.

Application

POLYLUB GA 352 P is used for the lubrication of rolling and plain bearings, racks, cylinder guides, pneumatic cylinders, load rollers and slideways.

POLYLUB GA 352 P is suitable for machines and installations in the food-processing and related industries where contact with the food product is excluded.

Application notes

POLYLUB GA 352 P can be applied by means of brush, spatula or grease gun.

Minimum shelf life

The minimum shelf life is approx. 24 months if the product is stored in its unopened original container in a dry place.

Pack sizes

20 x 400 g grease cartridges
12 x 1 kg cans
1 x 25 kg buckets
1 x 180 kg drum

POLYLUB GA 352 P

- Good water resistance
- Good adhesion
- USDA H2-registered

Product data

Chemical structure, oil type	mineral oil, synthetic hydrocarbon
Chemical structure, thickener	aluminium complex soap
Service temperature range [°C]* approx.	- 35 to 120
Colour	amber
Appearance	transparent
Texture	homogeneous, fibrous
Worked penetration, DIN ISO 2137 at 25 °C [0,1 mm]	280 - 310
Apparent dynamic viscosity at 25 °C, shear rate 300 s ⁻¹ , device: Haake [mPa*s] approx.	3500 - 5500
Drop point, DIN ISO 2176 [°C]	> 220
Anticorrosion properties of lubricating greases, DIN 51802, (SKF-EMCOR). Duration of test: 1 week, distilled water	<= 1

* Service temperatures are guide values which depend on the lubricant's composition, the intended use and the application method. Lubricants change their consistency, apparent dynamic viscosity or viscosity depending on the mechano-dynamical loads, time, pressure and temperature. These changes in product characteristics may affect the function of a component.

The data in this product information is based on our general experience and knowledge at the time of printing and is intended to give information of possible applications to a reader with technical experience. It constitutes neither an assurance of product properties nor does it release the user from the obligation of performing preliminary tests with the selected product. We recommend contacting our Technical Consulting Staff to discuss your specific application. If required and possible we will be pleased to provide a sample for testing. Klüber products are continually improved. Therefore, Klüber Lubrication reserves the right to change all the technical data in this product information at any time without notice.



Klüber Lubrication München KG, a member of the Freudenberg group

Publisher and Copyright:
Klüber Lubrication München KG

Reprints, total or in part, are permitted if source is indicated and voucher copy is forwarded.

Klüber Lubrication München KG
Geisenhausenerstraße 7, 81379 München, Deutschland
☎ +49 89 7876-0, Telefax +49 89 7876-333, www.klueber.com

Issue Date 10-Feb-2015

Revision Date 10-Feb-2015

Version 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name POLYLUB GA 352 P

Other means of identification

Product code: 097095

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Lubricant.

Uses advised against Consumer use

Details of the supplier of the safety data sheet

Supplier Address

Klüber Lubrication NA, LP
32 Industrial Drive
Londonderry, NH 03053
Phone: (603) 647-4104
Fax: (603) 647-4106

Emergency telephone number

Emergency Telephone CHEMTREC: 1-800-424-9300; INTERNATIONAL: (703) 527-3887

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin sensitization	Category 1
--------------------	------------

Label elements

EMERGENCY OVERVIEW

Signal word

Warning

Hazard statements

May cause an allergic skin reaction



Appearance Paste

Physical state Solid

Odor Mild

Precautionary Statements - Prevention

Avoid breathing dust/fume/gas/mist/vapors/spray
 Contaminated work clothing should not be allowed out of the workplace
 Wear protective gloves

Skin IF ON SKIN: Wash with plenty of soap and water
 If skin irritation or rash occurs: Get medical advice/attention
 Wash contaminated clothing before reuse

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)**Other information**

• Harmful to aquatic life with long lasting effects

Unknown Acute Toxicity

5.8233% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Components	CAS-No	Weight %	Trade Secret
Mineral oil	Proprietary	80 - 90%	*
N-Methyl-N-oleoylglycine	110-25-8	0.25 - 0.9%	*
2-(8-Heptadecenyl)-2-imidazoline-1-ethanol	95-38-5	0.25 - 0.9%	*
2,6-Di-t-butyl-4-methylphenol (BHT)	128-37-0	0.1 - 0.25%	*

4. FIRST AID MEASURES

First aid measures

Eye contact: Flush eye with water for 15 minutes. If symptoms persist, call a physician.

Skin contact: Rinse with plenty of water. If skin irritation persists, call a physician.

Inhalation: Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. If symptoms persist, call a physician.

Ingestion: Do not induce vomiting. Consult a physician.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Notes to physician: Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:

Carbon dioxide (CO₂). Dry chemical. Dry sand. Water spray mist or foam.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire

Specific hazards arising from the chemical

Thermal decomposition can lead to release of irritating gases and vapors. Water may be used to cool closed containers.

Hazardous combustion products Carbon oxides.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Special protective equipment for firefighters:

In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus. Standard procedure for chemical fires.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions: Contaminated surfaces will be extremely slippery. Avoid contact with skin, eyes and clothing. Wear personal protective equipment.

Environmental precautions

Environmental precautions: Do not allow material to contaminate ground water system. Prevent product from entering drains.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up: Scrape-up. Pick up and transfer to properly labelled containers. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Avoid contact with skin, eyes and clothing. Spilling onto the container's outside will make container slippery. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Keep cool. Keep in properly labelled containers. Keep away from direct sunlight

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Components	ACGIH TLV	OSHA (TWA mg/m ³):	IDLH:
Mineral oil -	5 mg/m ³ (oil mist)	5 mg/m ³ (oil mist)	
2,6-Di-t-butyl-4-methylphenol (BHT) - 128-37-0	2 mg/m ³ (Inhalable fraction and vapor)	(vacated) TWA: 10 mg/m ³	

Appropriate engineering controls

Engineering measures to reduce exposure: Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Respiratory protection: No personal respiratory protective equipment normally required.

Hand protection: Impervious gloves

Eye protection: Safety glasses with side-shields

Skin and body protection: Usual safety precautions while handling the product will provide adequate protection against this potential effect

General Hygiene Considerations Avoid contact with skin, eyes and clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Solid
Appearance Paste **Odor** Mild **Color** Yellow **Odor threshold** No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>		
Melting point/freezing point	No information available		pH	Not applicable
Flash point	Not Applicable	ISO 2592	Boiling point / boiling range	No information available
Flammability (solid, gas)	No information available		Evaporation rate	No information available
Upper flammability limit:	No information available		Flammability Limit in Air	
Vapor pressure	< 0.001 hPa, 20 °C		Lower flammability limit:	No information available
Specific Gravity	0.92		Vapor density	No information available
Solubility in other solvents	No information available		Water solubility	Insoluble in water
Autoignition temperature	No information available		Partition coefficient	No information available
Kinematic viscosity	No information available		Decomposition temperature	No information available
Explosive properties		No information available	Dynamic viscosity	No information available
Oxidizing properties		No information available		

Other information

Softening point No information available
Molecular weight No information available
VOC Content (%) No information available
Density No information available
Bulk density No information available

10. STABILITY AND REACTIVITY**Reactivity**

Not applicable

Chemical stability

Stability Stable under normal conditions

Possibility of Hazardous Reactions

Possibility of Hazardous Reactions None under normal processing.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid

Conditions to avoid Heat, flames and sparks

Hazardous Decomposition Products

Hazardous Decomposition Products None under normal processing

Incompatible materials

Incompatible materials Strong oxidising agents

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	Product does not present an acute toxicity hazard based on known or supplied information
Eye contact	Contact with eyes may cause irritation.
Skin contact	Prolonged contact may cause redness and irritation. May cause sensitization by skin contact.
Inhalation	Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Components	Oral LD50	Dermal LD50	Inhalation LC50
2,6-Di-t-butyl-4-methylphenol (BHT) - 128-37-0	= 2,930 mg/kg (Rat)	> 2,000 mg/kg (Rat)	-

Information on toxicological effects

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	May cause sensitization by skin contact.
Mutagenic effects:	Did not show mutagenic or teratogenic effects in animal experiments.
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.

Components	2,6-Di-t-butyl-4-methylphenol (BHT) - 128-37-0
ACGIH	-
IARC:	Group 3
NTP Report on Carcinogens List -	-
OSHA	-

Reproductive toxicity	This product does not contain any known or suspected reproductive hazards.
STOT - Single Exposure	None under normal use conditions.
STOT - Repeated Exposure	None under normal use conditions.
Aspiration hazard	Not applicable.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity	5.8233% of the mixture consists of ingredient(s) of unknown toxicity
The following values are calculated based on chapter 3.1 of the GHS document .	
ATEmix (oral)	5508 mg/kg
ATEmix (dermal)	5074 mg/kg
ATEmix (inhalation-vapor)	23226 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects

5.8233% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Mineral oil -	
Algae/aquatic plants	-
Fish	5000: 96 h Oncorhynchus mykiss mg/L LC50
Crustacea	1000: 48 h Daphnia magna mg/L EC50
2,6-Di-t-butyl-4-methylphenol (BHT) - 128-37-0	
Algae/aquatic plants	6: 72 h Pseudokirchneriella subcapitata mg/L EC50 0.42: 72 h Desmodesmus subspicatus mg/L EC50
Fish	0.464 mg/l, 96 h, Fish
Crustacea	0.386 mg/l, 48 h, Daphnia magna

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

The product is insoluble and floats on water.

Components	Partition coefficient
2,6-Di-t-butyl-4-methylphenol (BHT) - 128-37-0	4.17

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Empty containers should be taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION

DOT Not Regulated by any means of transportation

15. REGULATORY INFORMATION

International Inventories

TSCA:	Listed in TSCA
DSL:	All of the components in this product are listed in DSL
EINECS/ELINCS	This product complies with EINECS/ELINCS
CHINA:	This product complies with China IECSC.
KECL:	This product does not comply with Korea KECL.
PICCS:	This product does not comply with Philippines PICCS.
AICS:	All the constituents of this material are listed on the Australian AICS

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No

Fire Hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

State Regulations (RTK)**California Proposition 65**

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Components	NJRTK:	MARTK:	PARTK:
Mineral oil -	Substance no. 1437 Listed. Substance no. 4004 Listed.	Not Listed	Not Listed
2,6-Di-t-butyl-4-methylphenol (BHT) - 128-37-0	Substance no. 0814 Listed.	Listed.	Listed.

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

Nfpa:

Health: 1

Flammability: 1

Instability 0

NFPA/HMIS * for Carc, Muta, Tera, Specific Organ *

HMIS health rating:

Health: 2

Flammability: 1

Physical hazards 0

Personal protection B

Issue Date 10-Feb-2015

Revision Date 10-Feb-2015

Revision Note

Not applicable

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.

End of Safety Data Sheet