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Klübersynth GH 6-460 (H)

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

1.1 Product identifier

Product name : Klübersynth GH 6-460 (H)

Article-No. : 012402

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

Use of the : Lubricating oil

Substance/Mixture

Recommended restrictions

on use

: Restricted to professional users.

1.3 Details of the supplier of the safety data sheet

Company : Klüber Lubrication München GmbH & Co. KG

Geisenhausenerstr. 7 81379 München Deutschland

Tel.: +49 (0) 89 7876 0 Fax: +49 (0) 89 7876 333

info@klueber.com

E-mail address of person responsible for the SDS

: mcm@klueber.com

National contact : Klüber Lubrication Great Britain Limited

Unit 10 Pennine Business Park

Longbow Close Huddersfield

West Yorkshire HD2 1GQ

**Great Britain** 

Tel: +44-1422-205115 Fax: +44-1422-206073 sales@uk.klueber.com

1.4 Emergency telephone number

Emergency telephone

number

+49 89 7876 700 (24 hrs)

#### **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)



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Not a hazardous substance or mixture.

#### 2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Not a hazardous substance or mixture.

## **Additional Labelling**

EUH210 Safety data sheet available on request.

#### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

# **SECTION 3: Composition/information on ingredients**

## 3.2 Mixtures

Chemical nature : polyalkylene glycol oil

## Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	specific concentration limit M-Factor Notes Acute toxicity estimate	Concentration (% w/w)
Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phosphate and triphenyl phosphate	945-730-9	Aquatic Acute1; H400 Aquatic Chronic3; H412	M-Factor: 1/	>= 1 - < 2.5

For explanation of abbreviations see section 16.



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## **SECTION 4: First aid measures**

## 4.1 Description of first aid measures

If inhaled : Remove person to fresh air. If signs/symptoms continue, get

medical attention.

Keep patient warm and at rest.

If unconscious, place in recovery position and seek medical

advice.

Keep respiratory tract clear.

If breathing is irregular or stopped, administer artificial

respiration.

In case of skin contact : Remove contaminated clothing. If irritation develops, get

medical attention.

In case of contact, immediately flush skin with plenty of water.

Wash clothing before reuse.

Thoroughly clean shoes before reuse.

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids,

for at least 10 minutes.

If eye irritation persists, consult a specialist.

If swallowed : Move the victim to fresh air.

If unconscious, place in recovery position and seek medical

advice.

Keep respiratory tract clear. Do NOT induce vomiting. Rinse mouth with water.

Never give anything by mouth to an unconscious person.

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

Symptoms : No symptoms known or expected.

Risks : None known.

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

Treatment : Treat symptomatically.

## **SECTION 5: Firefighting measures**

#### 5.1 Extinguishing media

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or

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carbon dioxide.

Unsuitable extinguishing

media

High volume water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion : Carbon oxides

products Nitrogen oxides (NOx)

5.3 Advice for firefighters

Special protective equipment:

for firefighters

In the event of fire, wear self-contained breathing apparatus.

Use personal protective equipment. Exposure to decomposition products may be a hazard to health.

Further information : Standard procedure for chemical fires.

Collect contaminated fire extinguishing water separately. This

must not be discharged into drains.

## **SECTION 6: Accidental release measures**

#### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Evacuate personnel to safe areas.

Use personal protective equipment.

Ensure adequate ventilation.

Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions

Environmental precautions : Do not allow contact with soil, surface or ground water.

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and lakes or drains inform

respective authorities.

# 6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Contain spillage, and then collect with non-combustible

absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to

local / national regulations (see section 13).

#### 6.4 Reference to other sections

For personal protection see section 8.

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## **SECTION 7: Handling and storage**

## 7.1 Precautions for safe handling

Advice on safe handling : Avoid inhalation of vapour or mist.

Avoid contact with skin and eyes. For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the

application area.

Wash hands and face before breaks and immediately after

handling the product.

Do not ingest. Do not repack.

Do not re-use empty containers.

These safety instructions also apply to empty packaging which

may still contain product residues. Keep container closed when not in use.

Hygiene measures : Wash face, hands and any exposed skin thoroughly after

handling.

## 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

Store in original container. Keep container closed when not in use. Keep in a dry, cool and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in accordance with the particular national regulations. Keep in properly labelled containers.

7.3 Specific end use(s)

Specific use(s) : Specific instructions for handling, not required.

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

#### 8.1 Control parameters

Contains no substances with occupational exposure limit values.

## **Derived No Effect Level (DNEL):**

Substance name	End Use	Exposure routes	Potential health effects	Value
bis(4-(1,1,3,3- tetramethylbutyl)phen yl)amine	Workers	Inhalation	Long-term systemic effects	49.3 mg/m3
	Workers	Dermal	Long-term systemic effects	14 mg/kg bw/day
Reaction mass of 3- methylphenyl diphenyl phosphate, 4-	Workers	Inhalation	Long-term systemic effects	3.5 mg/m3

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methylphenyl diphenyl phosphate, bis(3- methylphenyl) phenyl phosphate, 3- methylphenyl 4- methylphenyl phenyl phosphate and triphenyl phosphate				
	Workers	Inhalation	Acute systemic effects	28 mg/m3
	Workers	Dermal	Long-term systemic effects	0.5 mg/kg bw/day
	Workers	Dermal	Acute systemic effects	4 mg/kg bw/day
pentaerythritol tetrakis(3-(3,5-di-tert- butyl-4- hydroxyphenyl)propio nate)	Workers	Inhalation	Long-term systemic effects	10 mg/m3
	Workers	Skin contact	Long-term systemic effects	89.2 mg/kg

# **Predicted No Effect Concentration (PNEC):**

Substance name	Environmental Compartment	Value
Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate	Fresh water	0.002 mg/l
	Marine water	0.0002 mg/l
	Fresh water sediment	3.43 mg/kg
	Marine sediment	0.343 mg/kg

## 8.2 Exposure controls

## **Engineering measures**

none

# Personal protective equipment

Eye/face protection : Safety glasses with side-shields

Hand protection

Material : Nitrile rubber Break through time : > 10 min



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Protective index : Class 1

Remarks : For prolonged or repeated contact use protective gloves. The

break through time depends amongst other things on the material, the thickness and the type of glove and therefore

has to be measured for each case.

Skin and body protection : Choose body protection in relation to its type, to the

concentration and amount of dangerous substances, and to

the specific work-place.

Respiratory protection : Not required; except in case of aerosol formation.

Filter type : Filter type A-P

Protective measures : The type of protective equipment must be selected according

to the concentration and amount of the dangerous substance

at the specific workplace.

**Environmental exposure controls** 

Air :

Should not be released into the environment.

Exhaust air must be cleaned using approved equipment

before returning it to the work place.

Soil :

Do not allow contact with soil, surface or ground water. The product should not be allowed to enter drains, water

courses or the soil.

Water :

Do not allow contact with soil, surface or ground water. The product should not be allowed to enter drains, water

courses or the soil.

## **SECTION 9: Physical and chemical properties**

9.1 Information on basic physical and chemical properties

Appearance : liquid

Colour : yellow

Odour : characteristic

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Odour Threshold : No data available

pH : 7.5 (20 °C)

Concentration: 100 %

Melting point/range : No data available

Boiling point/boiling range : No data available

Flash point :  $> 250 \, ^{\circ}\text{C}$ 

Method: open cup

Evaporation rate : No data available

Flammability (solid, gas) : Not applicable

Upper explosion limit / Upper

flammability limit

No data available

Lower explosion limit / Lower :

flammability limit

No data available

Vapour pressure : < 0.001 hPa (20 °C)

Relative vapour density : No data available

Relative density : 1.07 (20 °C)

Reference substance: Water The value is calculated

Density : 1.07 g/cm3

(20 °C)

Bulk density : No data available

Solubility(ies)

Water solubility : soluble

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, dynamic : No data available

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Viscosity, kinematic : 460 mm2/s (40 °C)

Explosive properties : Not explosive

Oxidizing properties : No data available

9.2 Other information

Sublimation point : No data available

Self-ignition : No data available

## **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

No hazards to be specially mentioned.

#### 10.2 Chemical stability

Stable under normal conditions.

## 10.3 Possibility of hazardous reactions

Hazardous reactions : No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid : No conditions to be specially mentioned.

10.5 Incompatible materials

Materials to avoid : No materials to be especially mentioned.

## 10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

# **SECTION 11: Toxicological information**

## 11.1 Information on toxicological effects

## **Acute toxicity**

**Product:** 

Acute oral toxicity : Remarks: This information is not available.

Acute inhalation toxicity : Remarks: This information is not available.

Acute dermal toxicity : Remarks: This information is not available.

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# **Components:**

Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phosphate and triphenyl phosphate

:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

Method: OECD Test Guideline 402

GLP: yes

Assessment: The substance or mixture has no acute dermal

toxicity

#### Skin corrosion/irritation

**Product:** 

Remarks : This information is not available.

#### Components:

Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phosphate and triphenyl phosphate

:

Species : Rabbit

Assessment : No skin irritation

Method : OECD Test Guideline 404

Result : No skin irritation

## Serious eye damage/eye irritation

**Product:** 

Remarks : This information is not available.

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## **Components:**

Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phosphate and triphenyl phosphate

:

Species : Rabbit

Assessment : No eye irritation

Method : OECD Test Guideline 405

Result : No eye irritation

#### Respiratory or skin sensitisation

**Product:** 

Remarks : This information is not available.

#### **Components:**

Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phosphate and triphenyl phosphate

:

Assessment : Did not cause sensitisation on laboratory animals. Result : Did not cause sensitisation on laboratory animals.

## Germ cell mutagenicity

**Product:** 

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

# **Components:**

Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phosphate and triphenyl phosphate

:

Genotoxicity in vitro : Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

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Method: OECD Test Guideline 471

Result: negative GLP: yes

Carcinogenicity

**Product:** 

Remarks : No data available

Reproductive toxicity

**Product:** 

Effects on fertility : Remarks: No data available

Effects on foetal development

: Remarks: No data available

## **Components:**

Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phosphate and triphenyl phosphate

:

Reproductive toxicity - : - Fertility -

Assessment

No evidence of adverse effects on sexual function and fertility,

or on development, based on animal experiments.

STOT - single exposure

**Product:** 

Remarks : No data available

STOT - repeated exposure

**Product:** 

Remarks : No data available

Repeated dose toxicity

**Product:** 

Remarks : This information is not available.

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## **Aspiration toxicity**

## **Product:**

This information is not available.

#### **Further information**

**Product:** 

Information given is based on data on the components and Remarks

the toxicology of similar products.

# **SECTION 12: Ecological information**

## 12.1 Toxicity

**Product:** 

Toxicity to fish : Remarks: Harmful to aquatic organisms, may cause long-term

adverse effects in the aquatic environment.

aquatic invertebrates

Toxicity to daphnia and other : Remarks: No data available

Toxicity to algae/aquatic

plants

Remarks: No data available

Toxicity to microorganisms

Remarks: No data available

#### 12.2 Persistence and degradability

**Product:** 

Biodegradability : Remarks: No data available

Physico-chemical

removability

Remarks: No data available

#### 12.3 Bioaccumulative potential

**Product:** 

: Remarks: No data available Bioaccumulation

12.4 Mobility in soil

**Product:** 

Mobility Remarks: No data available

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Distribution among

environmental compartments

Remarks: No data available

#### 12.5 Results of PBT and vPvB assessment

**Product:** 

Assessment : This substance/mixture contains no components considered

to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of

0.1% or higher.

#### 12.6 Other adverse effects

**Product:** 

Endocrine disrupting

potential

This substance/mixture contains components considered to have endocrine disrupting properties for environment,

according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU)

2017/2100.

Additional ecological

information

: Harmful to aquatic life with long lasting effects.

# **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water

courses or the soil.

Do not dispose of with domestic refuse.

Dispose of as hazardous waste in compliance with local and

national regulations.

Waste codes should be assigned by the user based on the

application for which the product was used.

Contaminated packaging : Packaging that is not properly emptied must be disposed of as

the unused product.

Dispose of waste product or used containers according to

local regulations.

The following Waste Codes are only suggestions:

Waste Code : unused product

13 02 06\*\*, synthetic engine, gear and lubricating oils

uncleaned packagings

15 01 10\*, packaging containing residues of or contaminated

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by hazardous substances

## **SECTION 14: Transport information**

#### 14.1 UN number or ID number

ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not regulated as a dangerous good

14.2 UN proper shipping name

ADR : Not regulated as a dangerous good

RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA : Not regulated as a dangerous good

14.3 Transport hazard class(es)

ADR : Not regulated as a dangerous good

RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA : Not regulated as a dangerous good

14.4 Packing group

ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA (Cargo) : Not regulated as a dangerous good
IATA (Passenger) : Not regulated as a dangerous good

14.5 Environmental hazards

ADR : Not regulated as a dangerous good

RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

#### 14.6 Special precautions for user

Not applicable

## 14.7 Maritime transport in bulk according to IMO instruments

Remarks : Not applicable for product as supplied.

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## **SECTION 15: Regulatory information**

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

Relevant EU provisions transposed through retained EU law

UK REACH List of restrictions (Annex 17) Not applicable

UK REACH Candidate list of substances of very high

concern (SVHC) for Authorisation

(UK SVHC)

This product does not contain substances of very high concern (UK: The REACH etc. (Amendment)

Regulations, Article 57).

The Persistent Organic Pollutants Regulations (retained

Regulation (EU) 2019/1021 as amended for Great

Britain) (GB POPs) Not applicable

Regulation (EC) No 1005/2009 on substances that

deplete the ozone layer

(EC 1005/2009)

Not applicable

Regulation (EU) 2019/1148 on the marketing and use of : Not applicable

explosives precursors

UK REACH List of substances subject to authorisation

(Annex XIV)

(UK. REACH Annex XIV)

Not applicable

GB Export and import of hazardous chemicals - Prior

Informed Consent (PIC) Regulation

(GB PIC)

Not applicable

Control of Major Accident Hazards Regulations

2015 (COMAH)

Not applicable

Directive 2010/75/EU of 24 November 2010 on industrial Volatile organic compounds

emissions (integrated pollution prevention and control) Volatile organic compounds (VOC) content: 0.06 %

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#### 15.2 Chemical safety assessment

This information is not available.

#### **SECTION 16: Other information**

#### **Full text of H-Statements**

H400 : Very toxic to aquatic life.

H412 : Harmful to aquatic life with long lasting effects.

#### Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN -Standard of the German Institute for Standardisation: DSL - Domestic Substances List (Canada): ECHA - European Chemicals Agency: EC-Number - European Community number: ECx -Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx -Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA -International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID -Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG -United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

|| Relevant changes compared to the last edition are highlighted at the left margin. This version replaces all previous editions.



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