

**SYNTHESO GLEP 1 (H)**

Version 3.7      Revision Date: 17.03.2022      Date of last issue: 25.08.2021  
Date of first issue: 18.06.2014      Print Date: 17.03.2022

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**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : SYNTHESO GLEP 1 (H)

Article-No. : 012401

**Manufacturer or supplier's details**

Company name of supplier : Klüber Lubrication München  
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  
Material Compliance Management

National contact : Klüber Lubrication Australia Pty. Ltd.  
1st Floor, 3 Brand Drive  
P.O. Box 4  
Thomastown Victoria 3074 (Melbourne)  
Australia  
Tel: +61 3 9464 7577  
Fax: +61 3 9464 7588  
kluber.mel@au.klueber.com

Emergency telephone number : +61 2 8014 4558 (24hrs)

**Recommended use of the chemical and restrictions on use**

Recommended use : Grease

Restrictions on use : Restricted to professional users.

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**SECTION 2. HAZARDS IDENTIFICATION**


**GHS Classification**

Skin sensitisation : Category 1

**GHS label elements**

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- Hazard pictograms : 
- Signal word : Warning
- Hazard statements : H317 May cause an allergic skin reaction.
- Precautionary statements : **Prevention:**  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P280 Wear protective gloves.  
**Response:**  
P302 + P352 IF ON SKIN: Wash with plenty of water.  
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
P362 + P364 Take off contaminated clothing and wash it before reuse.

**Other hazards which do not result in classification**

None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

- Substance / Mixture : Mixture
- Chemical nature : polyalkylene glycol oil  
special lithium soap

**Components**

Chemical name	CAS-No.	Concentration (% w/w)
lithium 12-hydroxystearate	7620-77-1	>= 1 -< 10
dilithium azelate	38900-29-7	>= 1 -< 10
4-ethyl-2-(8-heptadecenyl)-2-oxazoline-4-methanol	68140-98-7	>= 1 -< 10

**SECTION 4. 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.

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- Keep respiratory tract clear.  
If breathing is irregular or stopped, administer artificial respiration.
- In case of skin contact : Take off all contaminated clothing immediately.  
Wash off immediately with soap and plenty of water.  
Get medical attention immediately if irritation develops and persists.  
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 without medical advice.  
Never give anything by mouth to an unconscious person.
- Most important symptoms and effects, both acute and delayed : May cause an allergic skin reaction.  
Allergic appearance
- Notes to physician : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

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**SECTION 5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Unsuitable extinguishing media : High volume water jet
- Hazardous combustion products : Carbon oxides  
Nitrogen oxides (NOx)  
Sulphur oxides  
Oxides of phosphorus  
Metal oxides
- Specific extinguishing methods : Standard procedure for chemical fires.
- 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.

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Hazchem Code : -

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.  
Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust).  
Do not breathe vapours, aerosols.  
Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Try to prevent the material from entering drains or water courses.  
Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : Clean up promptly by sweeping or vacuum.  
Keep in suitable, closed containers for disposal.

**SECTION 7. HANDLING AND STORAGE**

- Advice on safe handling : Avoid contact with skin and eyes.  
For personal protection see section 8.  
Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.  
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 get in eyes or mouth or on skin.  
Do not get on skin or clothing.  
Do not ingest.  
Do not repack.  
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.
- Conditions for safe storage : 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.

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Store in accordance with the particular national regulations.  
Keep in properly labelled containers.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
lithium 12-hydroxystearate	7620-77-1	TWA	10 mg/m <sup>3</sup>	AU OEL (2012-05-04)
		TWA (Inhalable particulate matter)	10 mg/m <sup>3</sup>	ACGIH (2018-03-20)
		TWA (Respirable particulate matter)	3 mg/m <sup>3</sup>	ACGIH (2018-03-20)

**Engineering measures** : none

**Personal protective equipment**

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

Filter type : Filter type P

Hand protection

Material : Nitrile rubber  
Break through time : > 10 min  
Protective index : Class 1

Remarks : Wear 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.

Eye protection : Safety glasses with side-shields

Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.  
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

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Appearance : paste

Colour : beige

Odour : characteristic

Odour Threshold : No data available

pH : Not applicable  
substance/mixture is non-soluble (in water)

Melting point/range : No data available

Boiling point/boiling range : No data available

Flash point : Not applicable

Evaporation rate : No data available

Flammability (solid, gas) : Combustible Solids

Self-ignition : No data available

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 : 0.97 (20 °C)  
Reference substance: Water  
The value is calculated

Density : 0.97 g/cm<sup>3</sup> (20 °C)

Bulk density : No data available

Solubility(ies)  
Water solubility : insoluble

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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

    Viscosity, kinematic : Not applicable

Explosive properties : Not explosive

Oxidizing properties : No data available

Sublimation point : No data available

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity : No hazards to be specially mentioned.

Chemical stability : Stable under normal conditions.

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

Conditions to avoid : No conditions to be specially mentioned.

Incompatible materials : No materials to be especially mentioned.

Hazardous decomposition products : No decomposition if stored and applied as directed.

**SECTION 11. TOXICOLOGICAL INFORMATION**

**Acute toxicity**

**Product:**

Acute oral toxicity : Acute toxicity estimate: > 2,000 mg/kg  
Method: Calculation method

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

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Acute dermal toxicity : Symptoms: Redness, Local irritation

**Components:**

**lithium 12-hydroxystearate:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg  
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rabbit): > 3,000 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity

**dilithium azelate:**

Acute oral toxicity : LD50 (Rat): > 300 mg/kg  
Method: OECD Test Guideline 420  
GLP: yes

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity

**4-ethyl-2-(8-heptadecenyl)-2-oxazoline-4-methanol:**

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg  
Method: OECD Test Guideline 423  
GLP: yes  
Assessment: The substance or mixture has no acute oral toxicity

**Skin corrosion/irritation**

**Product:**

Remarks : This information is not available.

**Components:**

**lithium 12-hydroxystearate:**

Assessment : No skin irritation  
Method : OECD Test Guideline 439  
Result : No skin irritation



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**dilithium azelate:**

Assessment                               : No skin irritation  
Result                                       : No skin irritation

**4-ethyl-2-(8-heptadecenyl)-2-oxazoline-4-methanol:**

Species                                    : human skin  
Assessment                               : No skin irritation  
Result                                       : No skin irritation

**Serious eye damage/eye irritation**

**Product:**

Remarks                                   : This information is not available.

**Components:**

**lithium 12-hydroxystearate:**

Species                                    : Rabbit  
Result                                       : No eye irritation  
Assessment                               : No eye irritation  
Method                                      : OECD Test Guideline 405

**dilithium azelate:**

Species                                    : Rabbit  
Result                                       : No eye irritation  
Assessment                               : No eye irritation

**4-ethyl-2-(8-heptadecenyl)-2-oxazoline-4-methanol:**

Result                                       : No eye irritation  
Assessment                               : No eye irritation

**Respiratory or skin sensitisation**

**Product:**

Remarks                                   : This information is not available.

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**Components:**

**lithium 12-hydroxystearate:**

Exposure routes                   : Dermal  
Species                             : Mouse  
Method                             : OECD Test Guideline 429  
Result                               : negative

**dilithium azelate:**

Assessment                        : Does not cause skin sensitisation.  
Result                               : Does not cause skin sensitisation.

**4-ethyl-2-(8-heptadecenyl)-2-oxazoline-4-methanol:**

Assessment                        : May cause sensitisation by skin contact.  
Result                               : May cause sensitisation by skin contact.

**Chronic toxicity**

**Germ cell mutagenicity**

**Product:**

Genotoxicity in vitro            : Remarks: No data available

Genotoxicity in vivo             : Remarks: No data available

**Carcinogenicity**

**Product:**

Remarks                         : No data available

**Reproductive toxicity**

**Product:**

Effects on fertility               : Remarks: No data available

Effects on foetal develop-ment   : Remarks: No data available

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**STOT - single exposure**

**Components:**

**dilithium azelate:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

**STOT - repeated exposure**

**Components:**

**dilithium azelate:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**Repeated dose toxicity**

**Product:**

Remarks : This information is not available.

**Aspiration toxicity**

**Product:**

This information is not available.

**Components:**

**dilithium azelate:**

No aspiration toxicity classification

**Further information**

**Product:**

Remarks : Information given is based on data on the components and the toxicology of similar products.

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**SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Product:**

Toxicity to fish :  
Remarks: No data available

Toxicity to daphnia and other :  
aquatic invertebrates      Remarks: No data available

Toxicity to algae/aquatic :  
plants      Remarks: No data available

Toxicity to microorganisms :      Remarks: No data available

**Components:**

**lithium 12-hydroxystearate:**

Toxicity to fish :      LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l  
Exposure time: 96 h  
Test Type: semi-static test  
Method: OECD Test Guideline 203  
GLP: yes

Toxicity to daphnia and other :      EC50 (Daphnia magna (Water flea)): > 100 mg/l  
aquatic invertebrates      Exposure time: 48 h

Toxicity to algae/aquatic :      EC50 (Pseudokirchneriella subcapitata (green algae)): > 160  
plants      mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

NOEC (Pseudokirchneriella subcapitata (green algae)): 160  
mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

**dilithium azelate:**

Toxicity to fish :      LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l  
Exposure time: 96 h

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Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l  
Exposure time: 48 h

**4-ethyl-2-(8-heptadecenyl)-2-oxazoline-4-methanol:**

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 69.17 mg/l  
Exposure time: 48 h  
Test Type: static test  
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): 65.6 mg/l  
Exposure time: 72 h  
Test Type: static test  
Method: OECD Test Guideline 201  
GLP: yes

**Persistence and degradability**

**Product:**

Biodegradability : Remarks: No data available

Physico-chemical removability : Remarks: No data available

**Components:**

**lithium 12-hydroxystearate:**

Biodegradability : Primary biodegradation  
Inoculum: activated sludge  
Result: rapidly biodegradable  
Biodegradation: 74.7 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301C

**4-ethyl-2-(8-heptadecenyl)-2-oxazoline-4-methanol:**

Biodegradability : Result: Not rapidly biodegradable  
Biodegradation: 34.73 %  
Method: OECD Test Guideline 301B

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**Bioaccumulative potential**

**Product:**

Bioaccumulation : Remarks: This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).  
This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

**Components:**

**lithium 12-hydroxystearate:**

Partition coefficient: n-octanol/water : log Pow: 2.6

**dilithium azelate:**

Bioaccumulation : Bioconcentration factor (BCF): 3.0

Partition coefficient: n-octanol/water : log Pow: -3.56

**4-ethyl-2-(8-heptadecenyl)-2-oxazoline-4-methanol:**

Partition coefficient: n-octanol/water : log Pow: 3.42 (20 °C)

**Mobility in soil**

**Product:**

Mobility : Remarks: No data available

Distribution among environmental compartments : Remarks: No data available

**Other adverse effects**

**Product:**

Additional ecological information : No information on ecology is available.

**Components:**

**4-ethyl-2-(8-heptadecenyl)-2-oxazoline-4-methanol:**

Results of PBT and vPvB assessment : Non-classified vPvB substance Non-classified PBT substance

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**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods**

- Waste from residues : 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.
- 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.

**SECTION 14. TRANSPORT INFORMATION**

**International Regulations**

**UNRTDG**

Not regulated as a dangerous good

**IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

Not regulated as a dangerous good

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

Not applicable for product as supplied.

**National Regulations**

**ADG**

Not regulated as a dangerous good

**SECTION 15. REGULATORY INFORMATION**

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

Standard for the Uniform Scheduling of Medicines and Poisons : Schedule 5

Prohibition/Licensing Requirements : There is no applicable prohibition, authorisation and restricted use requirements, including for carcino-

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gens referred to in Schedule 10 of the model WHS Act and Regulations.

**SECTION 16. OTHER INFORMATION**

Revision Date : 17.03.2022  
Date format : dd.mm.yyyy

**Full text of other abbreviations**

ACGIH : USA. ACGIH Threshold Limit Values (TLV)  
AU OEL : Australia. Workplace Exposure Standards for Airborne Contaminants.  
  
ACGIH / TWA : 8-hour, time-weighted average  
AU OEL / TWA : Exposure standard - time weighted average

AllC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); 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; ERG - Emergency Response Guide; 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; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; 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; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recom-



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recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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