Dear simalube Customer,

We hereby confirm that the automatic lubricators simalube and simalube multipoint with the designation SL15 are filled with Blaser 00790-01 lubricant. The Material Safety Data Sheet (MSDS) for this lubricant is provided on the following pages. Please visit www.simatec.com for further technical data regarding this lubricant and simatec automatic lubricators.

01.11.2016 / simatec ag, Wangen a. Aare, Switzerland
SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name:** High-temperature chain oil
- **Article number:** 00790-01
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
  No further relevant information available.
- **Application of the substance / the preparation:**
  For industrial use only
  Lubricant

**1.3 Details of the supplier of the safety data sheet**

- **Manufacturer / Supplier:**
  BLASER SWISSLUBE AG
  Winterseistrasse 22
  CH-3415 Hasle-Rüegsau
  Switzerland
  Tel.: +41 (0)34 460 01 01
  Fax: +41 (0)34 460 01 00
  E-mail: blaser@blaser.com

- **Further information obtainable from:**
  Product Safety Department
  E-mail: reach@blaser.com

- **1.4 Emergency telephone number:**
  Abbreviated dialing: 145  (or: ++41 (0)44/ 251 51 51) Toxicological Info-Centre CH-Zurich

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SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture:**
  Classification according to Regulation (EC) No 1272/2008
  Aquatic Chronic 3  H412 Harmful to aquatic life with long lasting effects.

- **2.2 Label elements**
  The product is classified and labelled according to the CLP regulation.
  - **Hazard pictograms** Void
  - **Signal word** Void
  - **Hazard statements**
    H412 Harmful to aquatic life with long lasting effects.
  - **Precautionary statements**
    P273 Avoid release to the environment.
    P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
  - **Additional information:**
    Contains bisphenol A. May produce an allergic reaction.

- **2.3 Other hazards**
  - Results of PBT and vPvB assessment
    - **PBT:** Not applicable.
    - **vPvB:** Not applicable.

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SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**
  - **Description:** Mixture of hydrocarbons and active substances

(Contd. on page 2)
Trade name: High-temperature chain oil

· Declarable, or hazardous components:
  CAS-no.
  Reg.nr.: not applicable, confidential
  Mixture of synthetic esters with additives
  Aquatic Chronic 3, H412
  >80-<99%

  CAS: 126019-82-7
  ELINCS: 406-940-1
  Reg.nr.: 01-0000015643-71-0000
  Long chained alkyl- and aryl thio phosphoric acid ester
  Aquatic Chronic 2, H411
  >1,0-2,9%

  CAS: 110-25-8
  EINECS: 203-749-3
  Reg.nr.: 01-2119488991-20-0000
  Oleoyl sarcosine
  Eye Dam. 1, H318; Aquatic Acute 1, H400; Acute Tox. 4, H332; Skin Irrit. 2, H315
  < 1,00%

  CAS: 80-05-7
  EINECS: 201-245-8
  Reg.nr.: 01-2119457856-23-0000
  bisphenol A
  Repr. 2, H361f; Eye Dam. 1, H318; Skin Sens. 1, H317; STOT SE 3, H335
  < 0,50%

· Additional information:
  Not mentioned CAS-, EINECS- or registration numbers are to be regarded as Proprietary/Confidential.
  For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures
  · After skin contact: Generally the product does not irritate the skin.
  · After eye contact: Rinse opened eye for several minutes under running water.
  · After swallowing: If symptoms persist consult doctor.

· 4.2 Most important symptoms and effects, both acute and delayed
  No further relevant information available.

· 4.3 Indication of any immediate medical attention and special treatment needed
  No further relevant information available.

SECTION 5: Firefighting measures

· 5.1 Extinguishing media
  · Suitable extinguishing agents: CO₂, powder or water spray. Fight larger fires with water spray.
  · For safety reasons unsuitable extinguishing agents: Water with full jet

· 5.2 Special hazards arising from the substance or mixture
  No further relevant information available.

· 5.3 Advice for firefighters
  · Protective equipment: No special measures required.
  · Additional information Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures
  Not required.

· 6.2 Environmental precautions:
  Inform respective authorities in case of seepage into water course or sewage system.
  Do not allow to enter sewers/ surface or ground water.

· 6.3 Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). 

· 6.4 Reference to other sections
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.
SECTION 7: Handling and storage

· 7.1 Precautions for safe handling
  The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.
  Observe the general safety regulations when handling chemicals.
· 7.2 Conditions for safe storage, including any incompatibilities
  · Storage:
    · Requirements to be met by storerooms and receptacles: Store only in the original receptacle.
    · Information about storage in one common storage facility: Store away from oxidising agents.
  · Further information about storage conditions:
    Protect from heat and direct sunlight.
    Optimal storage temperature between 0 °C and +40 °C.
    Duration of storage: In original container, at least 3 years.
· 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

· Additional information about design of technical facilities: No further data; see item 7.
· 8.1 Control parameters
  · Ingredients with limit values at the workplace: TLV value (oil mist) CH: 5 mg/m³
· Additional information: The lists valid during the making were used as basis.
· 8.2 Exposure controls
  · General protective and hygienic measures: Wash hands before breaks and at the end of work.
  · Respiratory protection: Not required.
  · Protection of hands:
    The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
    Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
    Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
  · Material of gloves
    The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the resultant standard EN 374.
    The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
    The break through, among others, depending on material density and the type of glove and therefore must be determined in each individual case.
    Gloves must be inspected prior to use. Replace when worn!
    Impervious gloves: nitrile rubber, minimum thickness of 0.3 mm.
  · Penetration time of glove material
    The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.
  · Eye protection: Eye protector with side protection (framed eyeglasses) EN 166.
  · Body protection: Protective work clothing

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties
  · General Information
  · Appearance:
    · Form: Liquid
### Trade name: High-temperature chain oil

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>Amber coloured</td>
</tr>
<tr>
<td>Odour</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not determined.</td>
</tr>
<tr>
<td>pH-value</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Change in condition</td>
<td></td>
</tr>
<tr>
<td>Melting point/Melting range</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling point/Boiling range</td>
<td>&gt; 300 °C (DIN 51751 / ASTM D86)</td>
</tr>
<tr>
<td>Drip point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Pour point</td>
<td>&lt;= 30 °C (ISO 3016 / ASTM D97)</td>
</tr>
<tr>
<td>Flash point</td>
<td>260 °C (ISO 2592 / ASTM D92)</td>
</tr>
<tr>
<td>Flammability (solid, gaseous)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>&gt; 350 °C (DIN 51794 / ASTM E659)</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Self-igniting</td>
<td>Product is not selfigniting.</td>
</tr>
<tr>
<td>Danger of explosion</td>
<td>Product does not present an explosion hazard.</td>
</tr>
<tr>
<td>Explosion limits (@1013 mbar)</td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Upper</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Density at 20 °C</td>
<td>0.956 g/cm³ (DIN 51757 / ASTM D1217)</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solubility in / Miscibility with water</td>
<td>Insoluble.</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Viscosity</td>
<td></td>
</tr>
<tr>
<td>Kinematic at 40 °C</td>
<td>250 mm²/s (ISO 3104 / ASTM D445)</td>
</tr>
<tr>
<td>9.2 Other information</td>
<td>safety relevant data, which has to be considered as product specifications.</td>
</tr>
</tbody>
</table>

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** None known if used as directed.
- **10.2 Chemical stability** Stable under recommended storage conditions.
- **10.3 Possibility of hazardous reactions** Reacts with strong oxidising agents.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials** No further relevant information available.
- **10.6 Hazardous decomposition products**
  - Carbon monoxide and carbon dioxide
  - Sulphur oxides (SOx)
  - Nitrogen oxides (NOx)

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
### SECTION 12: Ecological information

#### 12.1 Toxicity

**Aquatic toxicity:**

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC50/24h</th>
<th>LC50/96h</th>
<th>EC50/72h</th>
</tr>
</thead>
<tbody>
<tr>
<td>126019-82-7 Long chained alkyl- and aryl thiophosphoric acid ester</td>
<td>5.5 mg/l (Daphnia magna)</td>
<td>&gt; 25 mg/l (Brachydanio rerio)</td>
<td>&gt; 100 mg/L (Algae)</td>
</tr>
</tbody>
</table>

**12.2 Persistence and degradability** No further relevant information available.

**12.3 Bioaccumulative potential** No further relevant information available.

**12.4 Mobility in soil** No further relevant information available.

**Ecotoxicological effects:**

- **Remark:** Harmful to fish

**Additional ecological information:**

- **General notes:**
  - Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
  - Harmful to aquatic organisms
  - Do not allow product to reach ground water, water course or sewage system.

**12.5 Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

**Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

**European waste catalogue**

<table>
<thead>
<tr>
<th>European waste code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 02 06*</td>
<td>synthetic engine, gear and lubricating oils</td>
</tr>
<tr>
<td>16 03 05*</td>
<td>organic wastes containing hazardous substances</td>
</tr>
</tbody>
</table>
SECTION 14: Transport information

- 14.1 UN-Number
  - ADR, ADN, IMDG, IATA: Void

- 14.2 UN proper shipping name
  - ADR, ADN, IMDG, IATA: Void

- 14.3 Transport hazard class(es)
  - ADR, ADN, IMDG, IATA: Void
    - Class: Void

- 14.4 Packing group
  - ADR, IMDG, IATA: Void

- 14.5 Environmental hazards:
  - Marine pollutant: No

- 14.6 Special precautions for user
  - Not applicable.

- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
  - Not applicable.

- Transport/Additional information:
  - Not dangerous according to the above specifications.

- IATA

- UN "Model Regulation": Void

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Labelling according to Regulation (EC) No 1272/2008: CLP/GHS label elements are issued under section 2.

- Directive 2012/18/EU
- Named dangerous substances - ANNEX I: None of the ingredients is listed.

- National regulations:
  - The product is subject to be labeled according with the prevailing version of the regulations on hazardous substances.

- Other regulations, limitations and prohibitive regulations
- Substances of very high concern (SVHC) according to REACH, Article 57
  - This preparation does not contain any SVHC ("Substances of Very High Concern")

- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Regulations / approvals / listings:

(Contd. on page 7)
**Trade name: High-temperature chain oil**

Information on REACH registration numbers in section 3:
In case of lack of REACH registration numbers on mentioned hazardous substances at the end of 2010, then these numbers will be known and indicated only in section 3 within its tonnage band for registration, after the end of 2013, respectively by the end of 2018, or are exempt from the REACH regulation (e.g. polymers).

- **RoHS:**
The following substances ARE NOT contained:
Pentabromodiphenylether, Octabromodiphenylether, polybrominated diphenylether (PDBE) and/or polybrominated biphenyls (PBB), lead or its compounds, cadmium or its compounds, mercury or its compounds, chromium Cr⁶⁺-compounds.

- **Department issuing MSDS:** Product Stewardship
- **Contact:** Dr. Mosimann + Mr. Frei

- **Editor's notice:**
The above mentioned data correspond to our present state of knowledge and experience. The safety data sheet serves as description of the products in regard to necessary safety measures. The indications have not the meaning of guarantees on properties.

- **Abbreviations and acronyms:**
  - ICAO: International Civil Aviation Organisation
  - RoHS: Restriction of Hazardous Substances
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
  - IMDG: International Maritime Code for Dangerous Goods
  - IATA: International Air Transport Association
  - GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - VOC: Volatile Organic Compounds (USA, EU)
  - ISO: International Organisation for Standardisation
  - DNEL: Derived No-Effect Level (REACH)
  - PNEC: Predicted No-Effect Concentration (REACH)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - PBT: Persistent, Bioaccumulative and Toxic
  - TLV: Threshold Limit Value
  - PEL: Permissible Exposure Limit
  - REL: Recommended Exposure Limit
  - Acute Tox. 4: Acute toxicity, Hazard Category 4
  - Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
  - Eye Dam.: 1: Serious eye damage/eye irritation, Hazard Category 1
  - Skin Sens.: 1: Sensitisation - Skin, Hazard Category 1
  - Repr.: 2: Reproductive toxicity, Hazard Category 2
  - STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
  - Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1
  - Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2
  - Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

  - * Data compared to the previous version altered.
The asterisk (*) on the left side indicate the respective changes from the previous version.