Environmentally friendly lubricants and additives
In 1834 Carl Bechem founded the first German oil factory. Still today the CARL BECHEM GMBH is managed as family-owned company meanwhile in the sixth generation. With daughter companies in France, India and Switzerland as well as Joint Ventures in the USA, South Africa, Sweden and China BECHEM belongs to the “global players” in the field of tailor-made high-performance lubricants.

In times of the company’s foundation there were hardly any other raw materials besides animal fats and vegetable oils which could be used for the production of lubricants. This is still today demonstrated by the BECHEM trademark, the Rhus Flower. In the middle of the 19th century mineral oil was used in industry for the first time, initially as illuminant for paraffin lamps. In the 1880s and 90s the animal and vegetable fats and oils were largely replaced by mineral oil products.

Due to the oil crisis in the 1970s, which illustrated the dependency of the industrial states on mineral oil, alternative energies and raw materials became of public interest. As a result vegetable base oils were more and more used for various lubricant developments.

Within short, these vegetable lubricant products became a completely new generation of semi and fully synthetic biodegradable lubricants which meet the standard of conventional lubricants.

**Obliged to tradition – committed to the future**
In extensive research and development works BECHEM has developed a high-performance range of environmentally friendly lubricants and additives. Besides eco-toxicological innocuousness for water and soil, quick biodegradability and conservation of resources the bio lubricants made by BECHEM excel in high lubricating performance.

In addition, BECHEM bio lubricants convince by high efficiency. This is revealed by extended machine service life due to less wear and, depending on the application, by extended oil changing intervals.

Contaminated environment is expensive
Conventional mineral oil based lubricants are extremely harmful for the biosphere when they get into the environment. Due to their poor degradability mineral oils remain in the eco-system for a long time. Even in case of high dilutions there will be a fatal eco-toxicological effect. High sums which have to be spent for the elimination of damages clearly show that economy and ecology today have the same priority.

For each individual application BECHEM offers their customers the suitable native, semi or fully synthetic biodegradable lubricants.

BECHEM-Biodegradable lubricants offer increased performance

High fines for polluters
A various number of laws and regulations account for this development. The non-observance can lead to considerable compensation sums and legal consequences.
## Circulation Oils

### Hydraulic Oils

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BECHEM Hydrolast HETG 32</strong></td>
<td>Environmentally friendly hydraulic oil, based on vegetable oils.</td>
</tr>
<tr>
<td><strong>BECHEM Hydrolast HEP 22 - 68 EEL</strong></td>
<td>Environmentally friendly hydraulic oil, all common ISO VG grades. Partially labelled with the european “Ecolabel” and the environmental emblem “Blauer Engel” (Blue Angel).</td>
</tr>
<tr>
<td><strong>BECHEM Hydrolast HEES 46 EEL</strong></td>
<td>Environmentally friendly hydraulic oil, all common ISO VG grades; extremely resistant to aging. Labelled with the european “Ecolabel” and the environmental emblem “Blauer Engel” (Blue Angel).</td>
</tr>
<tr>
<td><strong>BECHEM Hydrolast TE 68 S</strong></td>
<td>Environmentally friendly hydraulic oil, fire resistant.</td>
</tr>
</tbody>
</table>

### Gear Oils

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Berusyn ECO GEP 150 - 220</strong></td>
<td>Environmentally friendly gear oils, all common ISO VG grades.</td>
</tr>
</tbody>
</table>

### Motor Oils

<table>
<thead>
<tr>
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<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BECHEM Staroil ECO SAE 5W-40</strong></td>
<td>Environmentally friendly motor oil for all modern Otto and diesel engines.</td>
</tr>
<tr>
<td><strong>BECHEM Staroil ECO 2-Takt Mix</strong></td>
<td>Environmentally friendly motor oil for all two-stroke engines.</td>
</tr>
<tr>
<td><strong>BECHEM Staroil ECO STOU</strong></td>
<td>Environmentally friendly multipurpose oil for motors, gears and hydraulic systems.</td>
</tr>
</tbody>
</table>
## Greases

### Lubricating Greases

**Berugear UWS FG 34-00**

Environmentally friendly adhesive lubricant with solid lubricants for open gears, NLGI 00.

**Berulub ECO P-Way Lube**

Environmentally friendly, green multipurpose grease with solid lubricants for plain bearings and seals, NLGI 1.

**Berulub ECO VR 1-2**

Environmentally friendly multipurpose grease without solid lubricants for plain bearings and seals, NLGI 2.

**Berulub ECO Super 1**

Environmentally friendly multipurpose grease with solid lubricants for plain and roller bearings, NLGI 1.

**Berulub ECO Super 2**

Environmentally friendly multipurpose grease with solid lubricants for plain and roller bearings, NLGI 2.

**Berulub ECO LCE 2**

Environmentally friendly multipurpose grease without solid lubricants for plain bearings and seals, NLGI 2.
Various Biodegradable Products

**BECHEM – Lubricating Oils**

**BECHEM ECO Fluid CS 120**
Environmentally friendly chain saw oil.
Labelled with the environmental emblem “Blauer Engel” (Blue Angel).

**Berulub ECO GD 40 Spray**
Environmentally friendly creeping and multipurpose oil.

**Berulit ECO S 5**
Environmentally friendly compressor oil.

**Berucut SCO 446 ECO**
Environmentally friendly cutting oil for metal working operations.

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**BECHEM – Cleaners**

**Beruclean ECO**
Environmentally friendly, water insoluble cleaner.
## Rail Lubricants

### BECHEM Ecorail - Switch Lubricants

**BECHEM Ecorail EES 46**
Environmentally friendly, sprayable switch lubricating oil for tram and rail.

**BECHEM Ecorail 2012 / BECHEM Ceritol Future**
Environmentally friendly, sprayable switch lubricating grease, very long relubrication intervals.

**BECHEM Ecorail 2001 PLUS**
Environmentally friendly, sprayable switch lubricating grease, medium relubrication intervals.

**BECHEM Ecorail 2002**
Environmentally friendly, sprayable switch lubricating grease, long relubrication intervals.

**BECHEM Ecorail 2009 / BECHEM Ceritol AW 450 UWS**
Environmentally friendly, sprayable switch lubricating grease, very long relubrication intervals.
# Rail Lubricants

### BECHEM Ecorail - Rail Lubricants

**BECHEM Ecorail 5501**
Environmentally friendly rail lubricant with well balanced, light solid lubricants.

### BECHEM Ecorail - Railway Buffer Grease

**BECHEM Ecorail 7010**
Environmentally friendly adhesive lubricant, highly pressure resistant thanks to well balanced, pale solid lubricants.

### BECHEM Ecorail - Wheel Flange Lubricants

**BECHEM Ecorail 8000 / BECHEM Ceritol LS 500 UWS**
Environmentally friendly wheel flange lubricant without solid lubricants.

**BECHEM Ecorail 8200**
Environmentally friendly wheel flange lubricant with well balanced, pale solid lubricants.
Other BECHEM Products

Lubricant Greases
- High and low temperature greases
- Plain and roller bearing greases
- Open and closed gears
- Fitting greases
- Contact greases for electrical equipment
- Plastic lubrication
- CV-Joint greases
- Universal greases

Cleaners
- Water soluble cleaners, acid
- Water soluble cleaners, neutral
- Water soluble cleaners, alkaline
- Water insoluble cleaners

Machining Oils
- For cutting operations
  - Water soluble
    - drilling
    - turning
    - milling
  - Water insoluble
    - drilling
    - turning
    - milling
- For non-cutting operations
  - Water soluble
    - rolling
    - blanking
    - drawing
  - Water insoluble
    - rolling
    - blanking
    - drawing

Lubricating Oils
- Circulation oils
  - Hydraulics
  - Turbines
- Gears
- Compressors
- Chain oils
- Spindle oils
- Door closer oils
- Heat transfer oils
- Compressor oils

Anti-Friction Coatings
- For noise damping purposes
- For flexible materials
- For metal applications

Lubricating Pastes
- Assembly pastes
- Heat sink pastes

Corrosion Protection
- Oils and greases
- Water miscible
- Solvent containing

Water Hydraulics
- Mineral
- Synthetic

We are always grateful to receive your suggestions and individual requirements. Please contact us!
Lubrication Solutions for Industry

With 180 years of experience, BECHEM is one of the leading manufacturers of premium quality special lubricants and metal working fluids.

Close cooperation with research institutes, industry partners and product users as well as the knowledge, skills and major commitment by our staff are guarantees of new and innovative high performance lubricants, which contribute to the success of our customers at home and abroad.

A powerful network of distributors and several national and international production sites ensure our products are readily available worldwide.

Tomorrow’s technologies. Today.