



**Environmentally friendly  
lubricants and additives**



# About us

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.

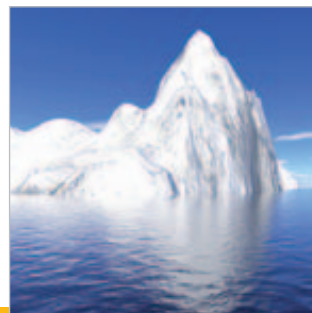
In times of the company’s foundation there were hardly any other raw materials besides animal fats and vegetable oils which could be used for the production of lubricants. This is still today demonstrated by the BECHEM trademark, the Rhus Flower. In the middle of the 19th century mineral oil was used 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**



# Competence in the field of environmentally friendly lubricants

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

## BECEM HYDROSTAR – Hydraulic Oils

### BECEM UWS HYDRAULIK 32

Environmentally friendly hydraulic oil, based on vegetable oils.

### BECEM HYDROSTAR HEP 22 – 68

Environmentally friendly hydraulic oil, all common ISO VG grades.  
Partially labelled with the environmental emblem “Blauer Engel” (Blue Angel).



### BECEM HYDROSTAR HEES 22 – 68 LONGLIFE

Environmentally friendly hydraulic oil, all common ISO VG grades; extremely resistant to aging.  
Partially labelled with the environmental emblem “Blauer Engel” (Blue Angel).



### BECEM HYDROSTAR HEES 22 – 68 EM

Environmentally friendly hydraulic oil, all common ISO VG grades; extremely resistant to aging.  
Partially labelled with the “Ecolabel” (European Ecolabel).



### BECEM HYDROSTAR TE 68 S

Environmentally friendly hydraulic oil, fire resistant.

## BECEM – Gear Oils

### BECEM UWS GEP

Environmentally friendly gear oils, all common ISO VG grades.

## BECEM STAROIL – Motor Oils

### BECEM STAROIL Synthetic SAE 5 W 40

Environmentally friendly motor oil for all modern Otto and diesel engines.

### BECEM UWS LUBRICANT 2-T-MIX

Environmentally friendly motor oil for all two-stroke engines.

### BECEM UWS MF (STOU)

Environmentally friendly multipurpose oil for motors, gears and hydraulic systems.



# Greases

## **BECHEM – Lubricating Greases**

### **BECHEM UWS VE 8-000**

Environmentally friendly fluid grease without solid lubricants for central lubrication systems, NLGI 000.

### **BERUGEAR UWS FG 34-00**

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

### **BECHEM UWS P-WAY LUBE**

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

### **BECHEM HIGH-LUB UWS VR 1-2**

Environmentally friendly multipurpose grease without solid lubricants for plain bearings and seals, NLGI 1-2.

### **BECHEM HIGH-LUB UWS LFB SUPER 1 DW**

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

### **BECHEM HIGH-LUB UWS LFB SUPER**

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

### **CERITOL LCE 2 UWS**

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



# Various Biodegradable Products

## BECHEM – Lubricating Oils

### BECHEM UWS LUBRICANT 120

Environmentally friendly chain saw oil.

Labelled with the environmental emblem “Blauer Engel” (Blue Angel).



### BECHEM BERULUB GREEN GD 40 (SPRAY)

Environmentally friendly creeping and multipurpose oil.

### BECHEM BERULIT S 5

Environmentally friendly compressor oil.

### BECHEM SCO 446 UWS

Environmentally friendly cutting oil for metal working operations.

## BECHEM – Cleaners

### BECHEM UNICLEAN

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 2000 / 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 / 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 5001

Environmentally friendly rail lubricant with a high content of well balanced solid substances.

## BECHEM ECORAIL Railway Buffer Grease

### BECHEM ECORAIL 7010

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

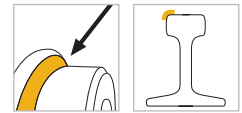
### BECHEM ECORAIL 7020

Environmentally friendly adhesive lubricant, highly pressure resistant thanks to well balanced solid lubricants.

## BECHEM ECORAIL Wheel Flange Lubricants

### BECHEM ECORAIL 8000 / CERITOL LS 500 UWS

Environmentally friendly wheel flange lubricant without solid lubricants.



### BECHEM ECORAIL 8100

Environmentally friendly wheel flange lubricant with well balanced 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

## Lubricating Oils

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

## Lubricating Pastes

- Assembly pastes
- Heat sink pastes

## Water Hydraulics

- Mineral
- Synthetic

## 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

## Anti-Friction-Coatings

- For noise damping purposes
- For flexible materials
- For metal applications

## Corrosion Protection

- Oils and greases
- Water miscible
- Solvent containing

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



## That'Special!

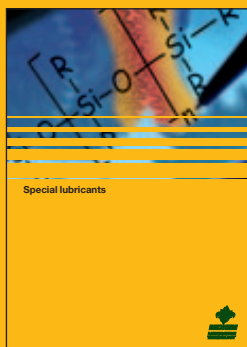
A tradition we are proud of since 1834. This is still today demonstrated by our trademark: the Rhus Flower. After permanent development, BECHEM is today a »Global Player«.

BECHEM special lubricants, industrial lubricants, metal working fluids and solutions for forming technology are based on our extensive experience in the development of special chemistry and on the latest tribologic knowledge. Our know-how with regard to friction, wear and lubrication always takes account of our customers' requirements for economical and ecological optimisation. We feel obliged to tradition and progress. That'Special!

Besides the headquarter in Hagen, BECHEM has two other production sites in Germany – in Mieste and Kierspe. In addition to that, our worldwide distribution network allows us to develop markets all over the world. With daughter companies in France, India and Switzerland, as well as Joint Ventures in the USA, South Africa, Sweden and China, BECHEM shows its international presence.

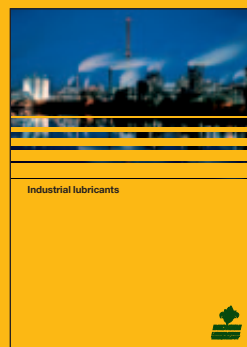
It is our target to supply our customers with high-quality products and to simultaneously meet the corresponding international standards. The quality of our products is guaranteed by our quality management system in accordance with the automotive standard ISO/TS 16949. All our production sites are systematically controlled by internal audits and regular external inspections by the certification association TÜV NORD CERT GmbH. Audits which are regularly carried out by our customers confirm the compliance with our high quality requirements.

Further information material is available either direct from us or at [www.bechem.com](http://www.bechem.com)



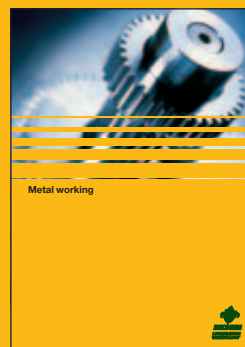
### Special lubricants

- Low and high temperature lubricants
- Plastic lubrication
- Electrical contact lubricants
- Food grade lubricants
- Valve lubricants
- Anti-Friction-Coatings



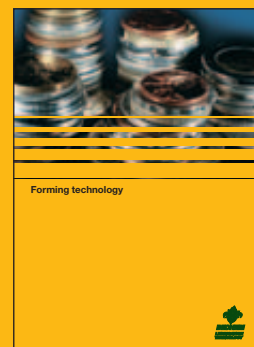
### Industrial lubricants

- High performance multipurpose greases
- Heavy duty and high temperature lubricants
- Hydraulic oils
- Gear lubricants
- »Green« lubricants



### Metal working

- Coolant lubricants
- Cutting and grinding oils
- Deep drilling oils
- Corrosion protection oils
- Cleaning agents



### Forming technology

- Wire drawing lubricants
- Cold forging oils
- Massive forming
- Tube drawing lubricants
- Sheet forming



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