

# CONTACT LUBRICATION GENERAL INFORMATION



The contact lubrication improves the mechanical properties of contact systems. An additional cleaning of the contact surfaces is recommended. With a respective care you can minimize the mechanical wear and reduce the mating and demating forces.

The cleaning and lubrication intervals should be adjusted to the individual conditions. Only the products, which are recommended from the producer of the contacts/connectors, should be used.

#### SAFETY INSTRUCTIONS

- When you use cleaning fluids or lubricants, you have to read the guidelines of the producer carefully and follow the safety instructions on the technical data sheets and safety data sheets!
- It is not allowed to do maintenance work on electrical contacts and connectors when they are energized. Maintenance work should be done by qualified personal only!
- It is not allowed to use detergents which perhaps damage the material of the electrical contacts and connectors or their platings!

### ADDITIONAL INFORMATION

In case of preventive, visual inspection, the electrical contacts or the connectors should be checked for wear and damage.

Care has to be taken to ensure that contact pins are not bent or otherwise damaged. If damage or other signs of wear are detected, the connector must not be used again.

Damaged parts have to be replaced immediately and with original parts only.

A dark discoloration at the contact points can occur over the service life and does not affect the electrical properties.

The related safety data sheet "Special lubricant for Electrical Contacts" can be down-loaded from the ODU website **www.odu-connectors.com** 

#### RECOMMENDED CLEANING AGENTS

Soaps: watery soaps, natron or potassium based Alcohol: Ethanol 70 %, Isopropanol 70 %

#### CONTENT

- Contact lubricant
- Microfiber cleaning cloth
- Cleaning brush

All dimensions are in mm.

Some figures are for illustrative purposes only. Subject to change without notice. Errors and omissions excepted. We reserve the right to change our products and their technical specifications at any time in the interest of technical improvement. This publication supersedes all prior publications.



SERVICE KIT FOR ELECTRICAL CONTACTS

#### **Technical Product Information**

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## Berulub FK 164-2 UV

Part-No. 9016809 Lifetime lubricant for electrical contacts











#### **Product description**

Berulub FK 164-2 UV is a special grease used for the lubrication and protection of sliding gold and silver contact systems. Berulub FK 164-2 UV improves contact, behaves neutrally towards many plastics and elastomers and is equipped with a UV indicator.

#### **Examples of application**

- Gold and silver-plated sliding/plug-in contacts
- Contact protection of electrical contact systems
- For currents from 10 mA to 30 A
- Mechanical switch components, especially for noise damping of plastic materials
- Suitable for polymer materials such as PC, PMMA and ABS susceptible to stress cracking

#### **Properties**

- High oxidation resistance
- Very good plastic and elastomer compatibility
- Excellent noise damping
- Reduces friction and wear of electrical switch components in the automotive sector
- Excellent low temperature behavior
- UV-indicator
- Excellent fogging behavior

#### Characteristic data

Туре	Unit	Value	Standard	
Thickener		Polytetrafluoroethylene (PTFE)		
Base oil		Perfluorpolyether (PFPE)		
NLGI-grade		2		
Color/Appearance		white		
Kinematic viscosity of the base oil at 40 °C	mm²/s	approx. 150	DIN 51562/ASTM D 7042	
Kinematic viscosity of the base oil at 100 °C	mm²/s	approx. 45	DIN 51562/ASTM D 7042	
Worked penetration	1/10 mm	265-295	DIN ISO 2137	
Working temperature range	°C	-60 – 250		
Working temperature range	°F	-76–482		
Density at 20 °C	g/cm³	approx. 1,85	DIN 51757	
Flow pressure at -35 °C	mbar	≤ 250	DIN 51805	
Fogging behavior (100 °C)	mg	≤ 2	DIN 75201-B	
Low temperature torque at -40 °C starting torque	mNm	≤ 75	ASTM D 1478	

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Type	Unit	Value	Standard
Low temperature torque at -40 °C running torque	mNm	≤ 40	ASTM D 1478
Oil separation (40 °C/168 h)	%	≤ 3	DIN 51817
Oil separation (40 °C/18 h)	%	≤ 1,5	DIN 51817

#### Instructions for use

Please read the safety data sheet prior to use to learn about precautions and safety instructions. Always comply with the applicable safety provisions and the intended use. You can request a copy of the current safety data sheet using the contact form on our website <a href="www.bechem.de/kontakt">www.bechem.de/kontakt</a> or by e-mail to <a href="mailto:bechem@bechem.de">bechem@bechem.de</a>.

#### Important notes

The information and technical data contained in this data sheet concerning the fields of application and processing for the product listed above are based on our knowledge and experience at the time of printing. Unless otherwise stated, this information is provided solely for reference and does not constitute a specification or warranty of quality in a particular instance. Many factors such as the relevant fields of application and the operating and working conditions are beyond the control of BECHEM.For this reason, we cannot guarantee the suitability of our products for a specific purpose or application on the part of the customer. The delivery of our products and our liability are subject exclusively to our general sales and delivery conditions. These are available online at <a href="https://www.bechem.de/agb.html">www.bechem.de/agb.html</a>.

Information regarding material compatibility is based on extensive laboratory testing and literature references. Due to the large number of plastics used and their raw materials as well as the complex chemical and morphological polymer structure, the indications regarding compatibility are solely a reflection of general trends. In order to ensure that the product is used correctly for individual orders and particularly for serial production, we recommend that the supplier carries out its own trials and application tests in advance and confirms the compatibility of the product or carries out thorough laboratory tests.

Please refer to the current safety data sheet for information regarding: Hazardous material labelling, safety provisions, and regulations on storage and transport, and take any necessary precautions to protect property and persons.

Because BECHEM products are subject to continuous development, CARL BECHEM GMBH and its associated companies reserve the right to make changes to the technical data in this data sheet at any time.

Visible variations in the product color of each batch as well as changes in the color of delivered products are technically possible and even probable for some products (for instance, due to the influence of temperature on raw materials). These processes are normal and confirmed by BECHEM raw material suppliers. They have no impact on the serviceability, service life, and quality of the products.

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For further information and more detailed product data, please contact us at: info@bechem.com or bechem@bechem.de.

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## Berulub FK 164-2 UV

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Low temperatures



High temperatures



Noise damping



JV trace





Automotive industry