Product Features
microGLEIT 931 is designed especially for stain-
less steel screws, self-drilling and thread-rolling
screws for achieving the lowest possible friction
with low scattering. The performance level of 931
is even higher than from microGLEIT DF 911 and
DF 921.
After application, microGLEIT DF 931 gives a
transparent, almost invisible layer. For improved
film building properties a little alcohol is added to
the formulation.
• DF 931 is designed to achieve defined, repro-
ducible friction values with lowest scattering.
• High abrasion resistance
• The layer is (almost) not visible but can be de-
tected by means of UV-light.
• High adhesion on a wide variety of materials
• No impact on the substrate material
• No subject of hazard labelling, environmentally
friendly

Product Application
Typical applications of microGLEIT DF 931 are
bulk parts, which have to be coated economi-
cally with a dry film lubricant in order to improve
their sliding properties
The coating is used to achieve a defined, pre-
dictable frictional behaviour, thus enabling
easier and faster assembly. The dry lubricant
replaces oil or grease lubrication.
Typically DF 931 is applied on:
• Stainless steel bolts and nuts
• Facade screws
• Thread-rolling and self-drilling screws
• Galvanically refined bolts and nuts
• Pinched nuts
• Aluminium Nuts
• Bulk parts with inorganic metal coatings
• Self-tapping and thread forming screws
• Rivets, dowels

Instructions for Use
• microGLEIT DF 931 is supplied as a concentrate - please protect from frost!
• Before application microGLEIT DF 931 has to be diluted with water (at least drinking water quality). The
  water is added to the product slowly with constant stirring.
• The parts to be coated have to be free from oil and dirt.
• For best film building we recommend to preheat the parts to approximately 40–45 °C / 104–113 °F.
• After wetting of the parts they have to be dried with hot air at ~50 — <60 °C /122— <140 °F.
• In order to avoid condensation water on the parts, we recommend to pack the parts only after cooling
down to ambient temperature.
• It is important to control the bath concentration regularly — please ask us for instructions.
• In order to prevent unwanted foaming of the coating bath, too heavy circulation or stirring of the bath should be avoided. A suitable antifoam additive can be ordered under the name ‘microGLEIT AF-90’.
• Keep bath and container closed in order to avoid unwanted evaporation and contamination!

Product Characteristics microGLEIT DF 931

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Standard/ Parameter</th>
<th>Unit</th>
<th>DF 931</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance (as delivered)</td>
<td>visually</td>
<td>—</td>
<td>milky white liquid</td>
</tr>
<tr>
<td>Density</td>
<td>DIN 51757</td>
<td>g/cm³</td>
<td>~ 1,0</td>
</tr>
<tr>
<td>Viscosity</td>
<td>DIN 53211 / 4 mm</td>
<td>s</td>
<td>30 – 50</td>
</tr>
<tr>
<td>Thinner</td>
<td>—</td>
<td>—</td>
<td>water („drinking water quality or de-ionized“)</td>
</tr>
<tr>
<td>pH-Value</td>
<td>—</td>
<td>—</td>
<td>4,5 – 5,8</td>
</tr>
<tr>
<td>Available Container Sizes</td>
<td>—</td>
<td>—</td>
<td>20 kg closed head pail</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>200 kg drum – 600/1000 kg IBC</td>
</tr>
<tr>
<td>Usable Life - Closed original container</td>
<td>months</td>
<td>—</td>
<td>12</td>
</tr>
<tr>
<td>Handling Precautions</td>
<td>—</td>
<td>—</td>
<td>see SDS</td>
</tr>
<tr>
<td>Appearance</td>
<td>visually</td>
<td>—</td>
<td>semi-matt</td>
</tr>
<tr>
<td>Service Temperature</td>
<td>—</td>
<td>°C /°F</td>
<td>-25 to +100 / -13 to 212</td>
</tr>
<tr>
<td>Friction value μ</td>
<td>Screw-Test</td>
<td>—</td>
<td>0,08–0,10</td>
</tr>
</tbody>
</table>

Dilution Ratio (DF 931 : Water)
Depending on Coating Process and Specific Requirements

<table>
<thead>
<tr>
<th>Process</th>
<th>Centrifuge</th>
<th>Immersion Drum</th>
<th>Very low μ required</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 : 1to 1 : 2</td>
<td>1 : 2 to 1 : 7</td>
<td>1:1 to 1:2</td>
<td></td>
</tr>
</tbody>
</table>