# LUBRICANTS & GREASES

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**HHS 2000**

Highly adhesive penetrating synthetic lubricating oil

High lubrication power
- Prevention of noises
- Vibration and impact dampening properties
- Long lasting lubrication effectiveness

High capillary action
- The product’s capillary action enables it to penetrate into inaccessible areas
- Effective creeping ability means that it does not require dismantling of parts when lubricating

Highly adhesive
- No splattering of the lubricant with turning and rotating parts

Material compatibility
- Compatible with O-Rings, X-Rings, plastic, metal, painted surfaces, etc.

Protects the surfaces against corrosion
Resistant to salt-water spray, withstands weak acids and alkaline solutions.
Contains no silicone, resin or acid

Operating temperature range:
-35 °C to +180 °C (-31 °F to +356 °F), temporarily: +200 °C (+392 °F)

Areas of Application:
Universal lubricating agent for parts under high pressure (e.g. shift, throttle and clutch linkages, bowden cables, hinges, deflection levers, etc.). Can be exposed to fresh and saltwater influence, and ideal for hard to reach areas and hidden lubrication points.

<table>
<thead>
<tr>
<th>Pressure resistance under high pressure loads</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LOADING</strong></td>
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<tr>
<td><strong>SEPARATE</strong></td>
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<tr>
<td><strong>OPPOSING BODY</strong></td>
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<tr>
<td><strong>MOVEMENT</strong></td>
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<tr>
<td><strong>SEPARATE</strong></td>
</tr>
<tr>
<td><strong>BASE BODY</strong></td>
</tr>
</tbody>
</table>

Despite high pressure loads and the shear movement of the base body, the lubricating film of the HHS 2000 remains active and does not tear off. Separates the opposing body from the base body, ensuring optimum wear protection under high pressure loads. This is possible only with a dirt-free surface!

**HHS GREASE**

High-performance, long-term maintenance grease with PTFE.

Long life lubricating features
Excellent sealing behaviour against moisture and dirt. Therefore, top oxidation stability and extension of lubricating intervals. High corrosion protection abilities included.

Outstanding material compatibility
- Excellent compatibility (plastic variants)
- Behaves neutrally toward painted surfaces

Solid lubricant with PTFE
- After grease film tears off, PTFE takes over lubrication (emergency running property)
- High thermal stability

With special white pigmentation
Optimum recognition of lubrication points during maintenance and inspection

Resistant to salt-water spray, withstands weak acids and alkaline solutions
Contains no silicone, resin or acid

Operating temperature range:
-15 °C to +130 °C (5 °F to +266 °F), temporarily: +200 °C (+392 °F)

Areas of Application:
Suitable for lubrication during maintenance and inspection work, e.g. hinges, joints, slide rails etc.

<table>
<thead>
<tr>
<th>Sealing behaviour against dirt and splash water</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GREASE SEALING</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>SEAL</strong></td>
</tr>
<tr>
<td><strong>DIRT PARTICLES</strong></td>
</tr>
</tbody>
</table>

The grease forms a sealing “grease collar” against moisture and dirt particles between the opposing body and the base body. The dirt cannot reach the lubricating point, ensuring long-term lubrication. The lubricating intervals extended in this way are only possible with good pre-cleaning of the lubricating point.
HHS 5000

High-performance fully synthetic oil lubricant with PTFE and extreme thermal stability.

Durable lubrication and wear resistance with PTFE
- Long term noise prevention
- After lubricating film wears off, the PTFE takes over lubrication [emergency running property]
- Maintenance of the gliding film under high thermal loads
- Vibration and impact dampening properties

High creeping capacity
- Very high migrating capacity
- Suitable for reaching hidden lubrication points

Highly adhesive
No splattering of the lubricant with turning and rotating parts

Material compatibility
Compatible with O-Rings, X-Rings, plastic, metal, painted surfaces, etc.

Safety due to long-term effect
- Provides reliable, long-term protection against corrosion
- No oxidation [gumming] up to +200 °C (392 °F). Briefly up to +250 °C (482 °F).
- No coking residues

Prevents carbon residue buildup
Splash and saltwater-resistant, withstands weak acids and alkaline solutions

Contains no silicone, resin or acid

Operating temperature range:
-20 °C to +200 °C (Temporarily: +250 °C)

Areas of Application:
Suitable for lubrication with the smallest tolerances and high temperature loading, e.g. throttle valve joints, inside bearings, thermally loaded chains and slide rails, etc.

HHS FOODSTUFFS

The specialized food grade adhesive lubricant from our HHS range with NSF H1 certification.
- Adhesive penetrating lubricant especially made for food related industries
- HHS Foodstuffs is a fully synthetic lubricant formula suited for precise applications where substrate compatibility and long lasting lubrication is essential.
- HHS Foodstuffs is also suitable for other areas of application such chains, linkages, joints, levers, bearing, sliding points, cables, open drives and hinges.

Characteristics:
- Great capillary action and adherence allows the lubricant to access hard-to-reach areas.
- NSF H1 registered.
- Provides long lasting protection against corrosion.
- Water resistant
- Free of silicone, acid, resin and AOX.
- Temperature tolerance - long term -25°C to 180°C (-13°F to 356°F) and short term up to 220°C (428°F).
- Compatible with O-rings/X-rings.

Areas of Applications:
- Shake the can well before use.
- The substrates need to be cleaned of grease and soil before being treated with HHS Foodstuffs for optimal results.
- When used as a corrosion protection film for food contact surfaces, completely remove all lubricant before restarting the device.

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Operating Temperature/Service Life Graph

Where lubricating film made from ordinary mineral-oil based lubricants tears (e.g. at +120 °C red curve), our HHS 5000 offers a longer lubricating condition (green curve). This allows considerable saving of lubricant.
HHS LUBE

Extreme pressure adhesive grease. Long lasting sprayable grease with OMC₂ technology.

Minimizes wearing and substance loss of lubricated surfaces
- Improves lubricity due to thermoplastic surface smoothing (OMC₂ technology)
- Reduces friction temperature, resulting in longer lubricating effect
- Low wear

Low dust and dirt adhesion
- Suitable especially for outdoor applications exposed to dust and dirt
- Long-term lubrication of the parts

Resistant against salt-water spray, as well as weak acids and alkaline solutions
- No rinsing off of the grease due to rain, splashes, cleaning solutions, etc.
- High corrosion protection properties

High pressure parts can be lubricated
- Resistant to high pressure loads due to extreme pressure additives
- Excellent noise and vibration damping properties

Material compatibility
Compatible with plastic, metal, painted surfaces, etc.

Contains no silicone, resin or acid

Operating temperature range:
-25 °C to +150 °C (-13 °F to +302 °F),
temporarily: +170 °C (+338 °F)

Areas of Application:
Suitable for lubrication applications with high dirt and weathering influence, e.g. gearwheels, wire cables, chains, spring tensioners, anti-friction bearings, etc.

Sealing behaviour against dirt and splash water:
The grease forms a sealing “grease collar” against moisture and dirt particles between the opposing body and the base body. The dirt cannot reach the lubricating point, ensuring long-term lubrication. The lubricating intervals extended in this way are only possible with good pre-cleaning of the lubricating point.

Manner of operation of OMC₂ technology

From a microscopic standpoint, all metal surfaces are rough (Fig. 1) and are subject to constant wear and substance loss when subjected to friction. HHS Lube with OMC₂ technology smoothes the metal surfaces by means of thermoplastic flow deformation (Fig. 2-3), ensuring the longer life of the components.

<table>
<thead>
<tr>
<th>Capillary Action</th>
<th>High Pressure Resistance</th>
<th>Temperature Resistance</th>
<th>Corrosion Protection</th>
<th>Adhesive Strength</th>
<th>Durability</th>
<th>Material Compatibility</th>
<th>Dirt Repellent</th>
<th>Solid Lubricant</th>
</tr>
</thead>
<tbody>
<tr>
<td>OMC₂</td>
<td></td>
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</tbody>
</table>
HHS RED LUBE

Extreme pressure resistant long-term sprayable grease with OMC, technology.

Minimizes wearing and substance loss of lubricated surfaces
- Improves lubricity due to thermoplastic surface smoothing (OMC₂ technology)
- Reduces friction temperature, resulting in longer lubricating effect
- Low wear

Low dust and dirt adhesion
- Suitable especially for lubrication of open parts outside
- Long-term lubrication of the parts

Resistant against salt-water spray, as well as weak acids and alkaline solutions
- No rinsing off of the grease due to rain, splashes, cleaning solutions, etc.
- High corrosion protection property

High pressure points can be lubricated
- Resistant to high pressure loads
- Excellent noise and vibration damping properties

Material compatibility
- Compatible with a wide range of plastic, metal, painted surfaces, etc.

Contains no silicone, resin or acid

Operating temperature range: -35 °C to +180 °C (-31 °F to +356 °F), temporarily: +200 °C (392 °F)

Areas of Application:
Suitable for lubricating points with high dirt and weathering influence, e.g. gearwheels, wire cables, chains, spring tensioners, anti-friction bearings etc.

Sealing behaviour against dirt and water/salt-water spray
The grease forms a sealing “grease collar” against moisture and dirt particles between the opposing body and the base body. The dirt cannot reach the lubricating point, ensuring long-term lubrication. The lubricating intervals extended in this way are only possible with good pre-cleaning of the lubricating point.

Manner of operation of OMC2 technology

From a microscopic standpoint, all metal surfaces are rough (Fig. 1) and are subject to constant wear substance loss when subjected to friction. HHS Lube with OMC₂ technology smoothes the metal surfaces by means of thermoplastic flow deformation (Fig. 2-3), ensuring the longer life of the components.
**HHS FLUID**

**Adhesive fluid grease, resistant to centrifugal force.**

**When spraying on - oil**

**Excellent creep capacity**
- Good gap penetration behaviour
- Protects against corrosion
- Reaches everywhere, where ordinary grease can’t

**After flashing off - grease**

**Extremely active adhesive effect**
- Remains in the point to be lubricated
- No throwing off/splashing
- Good long-term effect

**Outstanding pressure resistance**
- Extraordinary tear-resistant lubricating film for high-pressure loads
- Outstanding noise and vibration dampening properties

**Good material compatibility**
- O-ring and X-ring compatible
- Compatible with plastic
- Behaves neutrally toward painted surfaces

**Resistant to salt-water spray, withstands weak acids and alkaline solutions**

**Contains no silicone, resin or acid**

**Operating temperature range:**
-25 °C to +170 °C (-13 °F to +338 °F)
**Temporarily:**
+200 °C (392 °F)

**Colour:**
yellowish

**Application:**
Suitable for lubricating difficult re-lubrication points with performing maintenance and repair work, e.g. inside bearings, wire cables, joints, shafts, rolling bearings, etc.

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**The DUO Effect**

**When sprayed, has an oil-like consistency**

**When flashed off, a high-pressure resistant grease**

**Capillary Action** | **High Pressure Resistance** | **Temperature Resistance** | **Corrosion Protection** | **Adhesive Strength** | **Durability** | **Material Compatibility** | **Dirt Repellent** | **Solid Lubricant** |
--- | --- | --- | --- | --- | --- | --- | --- | ---
| | | | | | | | | None

**Creep effect**

**High pressure resistance**

**Fig. 1.1**

**Fig. 1.2**

Excellent creep behaviour directly after spraying on (Fig. 1.1). Penetrates between parts with close tolerances. Following brief flashing off of the active ingredient-solvent mixture, a high-viscosity grease is left behind exactly at the point to be lubricated (Fig. 1.2). At the same time, the creep point is wetted and protected against corrosion.

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With the new DUO Effect creep properties as with an oil. Has active adhesive and is pressure-resistant like grease.

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<table>
<thead>
<tr>
<th>Contents</th>
<th>Colour</th>
<th>Art. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>386 g</td>
<td>Yellowish</td>
<td>893.1064</td>
</tr>
</tbody>
</table>

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**Contains no silicone, resin or acid**

**Operating temperature range:**
-25 °C to +170 °C (-13 °F to +338 °F)
**Temporarily:**
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**Colour:**
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| | | | | | | | | None

**Creep effect**

**High pressure resistance**

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With the new DUO Effect creep properties as with an oil. Has active adhesive and is pressure-resistant like grease.
**ASSORTMENTS**

Art. No. 965.890

**Premium Quality Chemical Assortment**

**Contents:**
- 1 x Aerosol Cabinet
- 6 x Brake & Parts Cleaner
- 2 x Rost Off
- 2 x HHS 2000
- 3 x White Lithium Grease
- 3 x Gloss Black Spray Paint
- 3 x Flat Black Spray Paint
- 1 x Copper Anti-Seize CU 1100
- 1 x RTV-Sensor Safe Silicone
- 1 x RTV-Hi-Temperature Silicone
- 1 x D.O.S Super glue
- 1 x Medium Thread lock (Blue)

**CUT+COOL ULTRA - CONCENTRATED COOLING LUBRICANT**

Art. No. 893.050030 5 L

**Partly synthetic all-purpose lubricant with an outstanding cooling effect and excellent chip removal**

**Features:**
- Low-foaming formulation makes it ideal to be used with soft-water
- Excellent corrosion protection for tools and workpieces
- Excellent lubricating capacities allowing for increased operating speeds and less friction

**Areas of application:**
- Light-to-medium weight steel, cast iron, aluminum alloys and non-ferrous metal chips
- All lathes, grinders, and machining center equipment

**Note:** Boron-free, amine-free, chlorine-free, and formaldehyde-free

<table>
<thead>
<tr>
<th>Usage</th>
<th>Dilution Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grinding of steels and non-ferrous metals</td>
<td>4 - 6%</td>
</tr>
<tr>
<td>Machining of steels and non-ferrous metals</td>
<td>6 - 10%</td>
</tr>
<tr>
<td>Refractometer factor</td>
<td>2.3</td>
</tr>
</tbody>
</table>

**CUT+COOL ECO - BIODEGRADABLE CUTTING OIL**

Art. No. 893.050012 5 L

**A biodegradable, ecologically-sound cutting oil with uncompromising performance.**

**Features:**
- Odour-free
- Free of chlorine, sulphur, phosphor, silicone, resin and mineral oil
- Free of Paint-Wetting Impairment Substances (PWIS)
- Non-conductive

**Benefits:**
- Easy to use
- No cleaning of metals prior to assembly or further treatment required (e.g. welding) with low use concentrations
- Can be used on delicate surfaces, such as marble, plastic, and electrical components
- Minimal smoking

**Areas of application:**
For local use and with loss in lubrication systems. Optimum use with flat pressing between workpiece and tool, as well as for all difficult machining work.

**Usage Dilution Ratio**
- Grinding of steels and non-ferrous metals: 4 - 6%
- Machining of steels and non-ferrous metals: 6 - 10%
- Refractometer factor: 2.3

**Due to adherence of oil particles on machining tool, an optimum, long-term lubricating action is achieved.**
CUT+COOL - CUTTING AND DRILLING OIL

Art. No. 893.050004 355 g

Multi-functional cutting oil used in a variety of applications from light to medium heavy machine work.

**Features:**
- Aerosol container
- Universal use
- Free of silicone, chlorine, resin and acid
- Free of Paint Wetting Impairment Substances (PWIS)
- Spray cools on contact
- Protects tools
- Good creeping properties
- Excellent corrosion protection
- Dissolves sticky residues & deposits
- Good material compatibility

**Benefits:**
- Creeps into tight spaces
- Prevents welding of small material particles to cutting edge
- Provides lasting protection against further formation of rust and corrosion
- No re-treatment or preservation necessary
- Gumming up of chips is prevented

**Areas of Use:**
For drilling, thread tapping, thread forming, turning, countersinking, reaming and sawing. Optimal for stainless steel, but also high-alloy & construction steel, non-ferrous and precious metals. Can be used as a preservative agent for semi-finished and finished parts, machine parts, and as gun oil.

CUT+COOL - CUTTING AND DRILLING OIL PERFECT

Art. No. 893.050008 334 g

High-performance cutting oil for heavy-duty machining and high cutting speeds

**Features:**
- Aerosol container
- Free of chlorine, sulphur, phosphor, silicone and resin
- Free of Paint Wetting Impairment Substances (PWIS)
- Dual use as a lubricant and paste for heavy-duty machining
- Great corrosion protection
- Extremely resistant to high pressure

**Benefits:**
- Horizontal and overhead applications can be executed with ease
- Provides excellent results and safety for all materials and applications
- Can be welded without cleaning when smaller quantities are used
- Extends the life of tools
- Easy machining of hard steels with maximum strength

**Areas of Application:**
Optimum use for all machining of all materials such as steel, high-alloy steel, aluminum, non-ferrous metals, titanium, hard metals, cast iron, etc.

CUT + COOL - CUTTING AND DRILLING FOAM

Highly activated high-performance cutting foam for all machining applications

**Features:**
- Suitable for overhead applications
  Results in a well-adhering oil foam on the work piece
- No de-greasing work with cleaners necessary
  Can be washed off with clean water
- Very good cooling effect, strongly adhesive
  Low consumption; can be used as a minimal-quantity lubricant
- High performance thanks to high cutting speed and minimal tool wear
- Sulfur, mineral oil, heavy metal, and resin free
- Does not contain volatile chlorinated hydrocarbons
- Free of substances which interfere with wetting of paint

**Areas of Use:**
- For all ferrous and non-ferrous metals
- Steel: alloy and non-alloy
- All casting types: cast steel, malleable cast iron, die casting etc.
- Copper and its alloys: cast brass, red brass etc.
- All chrome-nickel alloys
- Aluminum and aluminum alloys

**Applications:**
Well-suited toward all machining applications, such as: thread cutting, thread drilling, centering, stripping, reaming, drilling and milling.
## Application Table

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<tr>
<th></th>
<th>Cutting and Drilling Oil</th>
<th>Cutting and Drilling Oil Perfect</th>
<th>Cutting and Drilling Oil Eco</th>
<th>Cooling Lubricant</th>
</tr>
</thead>
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<tr>
<td><strong>Materials</strong></td>
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<tr>
<td>Steel, alloyed steel</td>
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<tr>
<td>High-alloy steel</td>
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<td>Cast iron, grey cast iron</td>
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<td>Carbide</td>
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<tr>
<td>Non-ferrous metal (copper, brass, etc.)</td>
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<td>Titanium</td>
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<td>Magnesium</td>
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<td>Aluminum, aluminum alloys</td>
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<tr>
<td><strong>Machining processes</strong></td>
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<tr>
<td>Turning, automatic lathe</td>
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<td>Drilling, countersinking, reaming</td>
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<td>Deep drilling</td>
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<td>Sawing</td>
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<td>Thread tapping</td>
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<tr>
<td>Thread forming, rolling</td>
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<td>Forming, rolling, bending</td>
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<td>Punching, fine punching</td>
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<tr>
<td>Broaching, tooth cutting</td>
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<tr>
<td><strong>Characteristics</strong></td>
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<tr>
<td><strong>Base</strong></td>
<td>Mineral oil</td>
<td>Mineral oil with synth. ester</td>
<td>Synth. ester</td>
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<tr>
<td>Viscosity (mm²/s)</td>
<td>12</td>
<td>25</td>
<td>35</td>
<td>175</td>
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<tr>
<td>Minimal quantity lubrication</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Free from mandatory warning symbols</td>
<td>✓</td>
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<tr>
<td>Suitable for overhead applications</td>
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<td>✓</td>
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<tr>
<td>Very high lubricating performance</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Very long tool life</td>
<td>✓</td>
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<tr>
<td>Minimal smoking</td>
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<td>Extremely low consumption</td>
<td>✓</td>
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<tr>
<td>Good creep properties</td>
<td>✓</td>
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<tr>
<td>Low-foaming</td>
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<tr>
<td>Very high microbial stability</td>
<td>✓</td>
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<tr>
<td>Water hazard class</td>
<td>1</td>
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## Technical Information

<table>
<thead>
<tr>
<th>Product</th>
<th>Cutting and Drilling Oil</th>
<th>Cutting and Drilling Oil Perfect</th>
<th>Eco Cutting and Drilling Oil</th>
<th>Cooling Lubricant Concentrate</th>
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<tbody>
<tr>
<td>Art. No.</td>
<td>893.050004</td>
<td>893.050008</td>
<td>893.050012</td>
<td>893.050030</td>
</tr>
<tr>
<td>Container</td>
<td>Aerosol, 400 mL</td>
<td>Aerosol, 400 mL</td>
<td>Canister, 5 L</td>
<td>Canister, 5 L</td>
</tr>
<tr>
<td>Type</td>
<td>Multi-functional oil for many applications</td>
<td>High-pressure resistant high-performance cutting oil for excellent results with all materials</td>
<td>Biodegradable, harmless cutting oil</td>
<td>Universal cooling lubricant with high corrosion protection</td>
</tr>
<tr>
<td>Properties</td>
<td>For universal use Extremely good creep capacity Already cools while spraying on Dissolves sticky residues and deposits Good material compatibility Gumming up of chips is prevented</td>
<td>Can be used as minimal quantity lubricant High separating effect between friction partners workpiece and tool Outstanding results for all machining work Very good high pressure resistance Weldable without prior cleaning (with low use concentrations) Top dimensional accuracy and quality</td>
<td>Can be used in areas in which food is processed or stored Suitable for loss lubrication No reaction on contact with sensitive materials Very good high-pressure resistance Outstanding corrosion protection Further processing (e.g. welding) possible without washing off (with low use concentrations) 100% biodegradable Odour-free</td>
<td>Multi-functionally suitable for all machining equipment Suitable for a broad range of materials Free from mandatory warning symbols High corrosion protection Extremely hypoallergenic Low-foaming No gumming up of measuring sensors, etc.</td>
</tr>
<tr>
<td>Base</td>
<td>Mineral Oil</td>
<td>Mineral oil with synth. ester</td>
<td>Synth. ester</td>
<td>Mineral oil</td>
</tr>
<tr>
<td>Colour</td>
<td>Brown-yellow</td>
<td>Yellow</td>
<td>Light yellow</td>
<td>Brown (concentrated), Semi-transparent emulsion</td>
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<tr>
<td>Flash point (oil)</td>
<td>190 °C (374 °F)</td>
<td>170 °C (338 °F)</td>
<td>275 °C (527 °F)</td>
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<tr>
<td>Viscosity, mm²/sec</td>
<td>12</td>
<td>25</td>
<td>35</td>
<td>66</td>
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<tr>
<td>Density at 20 °C, g/cm³</td>
<td>0.889</td>
<td>0.835</td>
<td>0.77</td>
<td>0.989</td>
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<td>Water hazard class</td>
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<tr>
<td>pH value</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Refractive index</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loadability, wear protection, service life*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brugger Test, N/mm² (DIN 51347)</td>
<td>22</td>
<td>113</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>Shelf life, months</td>
<td>12 (+5 to +40 °C)</td>
<td>12 (+5 to +40 °C)</td>
<td>12 (+5 to +40 °C)</td>
<td>12 (+5 to +40 °C)</td>
</tr>
</tbody>
</table>
WOOD GLIDE

Wood Glide is great for neutralizing resin, preventing wood shavings and wood dust from sticking to and clogging machinery.

Features:
- Cleans adjustment wheels, hand spindles and dimensional stops
- Prevents corrosion on bare or polished machine tables
- Behaves neutrally on post-treatment with paints, stains or varnishes
- Repels moisture
- Silicone-free

Areas of application:
- Can be used on all wood-working machines

Recommended:
Use with Spray Pump Bottle (1L) Art. No. 893.070-P

Note: Wood Glide must not be applied directly to the workpiece surface. Preliminary testing is required for painted parts.

WÜRTH FILM

Würth Film is a non-conductive long-term penetrant lubricant that protects against rust and corrosion.

- Ideal product for use to protect the surfaces of all metal surfaces.
- The penetrating and coating action ensures moisture is displaced and further moisture intrusion is prevented.
- Will not dry up and clog.
- The aerosol format provides ease of application, especially in hard-to-reach areas.
- Provides lubrication to sliding surfaces, to prevent binding and squeaking.
- Penetrates through rust, stopping all metal deterioration on contact.
- Solvent free, non-toxic, non-conductive, silicone free and environmentally friendly.
- Temperature range: -10 °C to +60 °C (+14 °F to +140 °F)

Application:
- Automotive and Trucking: battery terminals, brake cables, door hinges, hood & trunk mechanisms, all nuts, bolts & studs, throttle cables, tools, wheel lugs, trailer attachments.
- Agriculture: applicators and transfer pumps handling liquid fertilizers, balers, blades/cutters, combines, cultivators, tractors, winches, fertilizer spreaders, irrigation fittings, pruning shears & saws, control cables.
- Boating: battery terminals, boat trailers, outboard engines against salt spray, electronic equipment, fishing reels, pulleys.
- Manufacturing / Industrial: chain falls, conveyor belt rollers, cranes, exposed gears & machined surfaces, mould release agent, snow ploughs.

COGWHEEL GREASE

Black, shear-resistant, high-pressure resistant special lubricant.

- High-pressure resistant.
- Reliable wear protection, even under high pressure loads.
- Noise and vibration-damping.
- Shear-resistant.
- Excellent lubrication, even with quickly rotating lubricating points.
- Addition of solid lubricants. Features good emergency running properties.*
- Contains corrosion protection additives. Gets under moisture and protects against corrosion.
- O-ring compatible.
- Resistant to sprayed salt-water spray, as well as to weak acids and caustic solutions.
- Silicone and bitumen-free.

- Temperature range from -30°C to +180°C (-22°F to +356°F).

Areas of application:
For long-term lubrication of open lubricating points, heavily loaded gearwheels, rapidly turning chains and for lubricating turning gears, toothed racks, fifth-wheel pick-up plates, leaf springs, etc. both indoors and outdoors.

* Emergency running property: The solid lubricant prevents extreme wear in the critical phases of lubricating film tear-off.
Metal-free, grey-coloured high-temperature lubricating paste which reduces wear, promotes separation and protects against corrosion.

Features:
- Universal application
- Supple & highly adherent
- Contains no metal-pigments
- Free of graphite, MOS₂ and additives containing sulfur
- Silicone free
- Non-toxic
- Carries NSF Certification

Industry use information:
- Machine tools of all kinds
- Vehicles, construction & agricultural machines
- Conveyor technology, pipeline construction, assembly/maintenance/repair departments
- Tool manufacturing
- Mechanical workshops

Art. No. 893.123  292 g

HSP 1400

Technical Data

<table>
<thead>
<tr>
<th>Base</th>
<th>Synthetic mineral oil mixture with organic thickener and solid lubricant combination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature range</td>
<td>-40°C to +1,400°C (temperature range of solid lubricants)</td>
</tr>
</tbody>
</table>

Test data

Tests in mixed friction area
- Four-Ball Tester Acceptable Load/Welding Load 3,800/4,000 N, DIN 51350,4
- SRV (cylinder/plate; 450 N, 1,000 µm, 50 Hz,2h)
  - Friction coefficient: 0.10 – 0.13
  - Wear depth: 0.3 µm
- Corrosion-protection test
  - Salt-spray test > 500 h, DIN 50 021t

Areas of application:

- Splined shafts and joints of all kinds.
  - High pressure resistance ensures smooth movement and minimal wear

- Slide and roller bearings, fly wheels and runners.
  - Non-destructive pressing in and out

- Press fittings on slide bearings, bed tracks and column guides
  - Smooth, jerk-free movements, even at low speeds.
  - Emergency lubrication for additional lubrication with greases or oils.
  - Protection against edge pressing

- Heavy-duty stroke spindles
  - Shut-off valves, taps, slide valves
  - Smooth movement of adjustment spindles.
  - Uniform tightening torques and non-destructive dismantling of screw connection.

- Brake parts, clamping chucks, heavy clamped connections
  - Ensures high clamping forces.
  - Ensures uniform tightening and loosening.
  - Adhesive, water-resistant lubricating film.

- Flange connections, pins, screws, bolts and nuts
  - Ensures even tightening torques thanks to the minimum friction coefficient distribution.
  - Non-destructive dismantling, even after long effects of heat exposure.
  - Prevents seizing up, e.g. with stainless-steel bolts.

Note: Product is not suitable for bearing lubrication.

JANUARY 2021

LUBRICANTS & GREASES
**LMS-FLUID**

**Food grade lubricant. Physiologically safe special lubricant on a paraffin oil base.**
- Can be used in areas in which food is processed or stored.
- NSF H1 Certified
- In this context, the product may come into contact with foodstuffs for occasional, technically unavoidable reasons.

**Viscous, colourless special lubricant**
- Reduction of wear and friction
- Excellent corrosion protection

**Can be applied exactly where needed**
- Optimum, precise lubrication at defined lubrication points
- Economical and sparing

**Safer Experience**
- Especially user-friendly and secure handling
- Improved workplace safety and health protection
- Free from mandatory warning symbols

**Tasteless and odourless**
**AOX and silicone-free**

**Areas of Application:**
For oil lubricating points on machines, conveying systems, gearboxes, plain bearings and anti-friction bearings as well as for use as a release agent and lubricant and for corrosion protection in the food, pharmaceutical, printing and paper industries. For the care and maintenance of stainless steel in breweries, bakeries, meat factories, industrial kitchens and hospitals.

<table>
<thead>
<tr>
<th>Contents</th>
<th>Colour</th>
<th>Art. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>244 g</td>
<td>Colourless</td>
<td>893.107001</td>
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</table>

**Technical Data**

<table>
<thead>
<tr>
<th>Chemical basis</th>
<th>Medicinal white oil according to DAB 102</th>
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<tbody>
<tr>
<td>Density at 20 °C</td>
<td>0.86 g/cm³</td>
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<tr>
<td>Temperature range</td>
<td>-20 °C to +145 °C (-4 °F to +293 °F)</td>
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<tr>
<td>Basic oil viscosity at 40 °C</td>
<td>70 mm²/s</td>
</tr>
</tbody>
</table>

**PTFE DRY FILM LUBRICANT**

**Art. No. 893.550 180 g**

**Transparent, non-soiling dry lubricant**

**Remedies squeaking, creaking and jamming**
Provides long-term protection against wear

**Dry lubrication**
Does not attract dirt and dust

**Film thickness 10 µm**
Can also be used with extremely close tolerances in fine machinery

**Very high resistance**
- Thermally stable from -180 °C to +260 °C (Temporary)
- Permanently resistant to water acids and alkaline solution

**Silicone-free**

**Mineral oil-free**

**Areas of application:**
Suitable for dry lubrication of sliding points. For cases of minimal and medium exposure, can be used for metals, plastic, rubber, etc. Ideal for sliding-roof and seat rails, door hinges and locks, sliding doors, tilt window mechanisms, window locks, furniture hinges, drawers, runners, ball bearings, electrical switches, etc. Also ideal as a release agent if used sparingly.
**WIRE CABLE SPRAY**

Art. No. 893.1058 387 g

Protective wax with OMC for lubrication and conservation

- Does not melt off when at hot temperatures
- Ideal for areas subjected to direct sunlight

Optimal creep properties
- Good penetration of the lubricating wax in the smallest crevices
- Lubrication in hard to reach places

Outstanding water resistance
- Ideal for outdoor use
- Protects against moisture
- Excellent corrosion protection

Contains additives with OMC2 technology
- Improved lubricating film
- Extended corrosion protection
- Low wear
- Extended service life

Free of AOX and silicone
Free of solid lubricants

**Applications:**
Door locks, engine assembly pre-lube, key barrels, power antennas, bearings, gaskets, hinges, rubber moldings, anti-seize thread lubricant, etc.

**Application Temperature:**
50°F to 90°F (10°C to 32°C). Can withstand temperatures up to 400°F (204°C)

**Notes:** Caution! Do not spray on paint work. If material comes in contact with paint finish, remove immediately.

**Areas of Application:**
Lubricates and conserves wire ropes on winches, lifts, conveyors as well as carrier and sling ropes.

**Technical Data:**
- **Base:** Synthetic wax oxidation base
- **Colour:** Brown
- **Water resistance (DIN 51807, Part 1):** 0 - 90
- **Corrosion protection (DIN 51802):** No rust spots after 7 cycles
- **Temperature Range:** -40 °C to +120 °C (-40 °F to +248 °F)

**Function principle of OMC2 technology:**
Viewed under a microscope, all metal surfaces are rough and are subject to continual wear and loss of substance due to friction. OMC2 additives render metal surfaces smoother due to thermoplastic flow deformation through organo-metallic compounds. The flow deformation is controlled individually, depending on the load the metal surface is subjected to.

- Improves surface quality due to metal surface sealing
- Improves lubricating film quality
- Reduces thermal loading
- Less friction (up to 50% in mixed friction area)
- Reduces loss of substance
- Reduces wearing
- Extended service life

**Areas of Plastic Smoothing**

- Original surface
- Smoothed surface

**CORROSION PROTECTION**

**GREASE**

**FLUID GREASE**

**OIL**
TIRE AND RUBBER LUBRICANT

A special spray lubricant that facilitates the assembly and disassembly of rubber parts.

Features:
• Spray lubricant with a foam like texture that evaporates without leaving a residue or dirty grease.
• Will not attack aluminum, rubber, varnish or paint.
• Application temperature 10°C – 35°C.
• Ideal for lubricating tires for easy mounting on rims, particularly for low profile or run flat tires.
• Can be used to reduce friction/resistance when pulling cables through pipe, ducts or conduit.
• Suitable for assembly of hoses, rubber plugs, door rubbers, rubber covers, silent blocs, etc.

Art. No. 890.12500  440 g

MAINTENANCE SPRAY

Highly effective wear protection additives ensure excellent friction reduction

Prevents freezing in winter, as no moisture can accumulate

Outstanding creeping and cleaning performance
• Keeps door and window hinges running smoothly
• Lubricates and protects all precision mechanical devices

Resin and acid-free
• Sensitive surface components are not attacked

Silicone-free

Also suitable for use as a gun oil

Use:
For lubricating hinges, tool and machine holders, etc.

Temperature Resistant from -15°C to 150°C

Designation Contents Art. No.
Aerosol Can 107 g 893.051

LOCK CYLINDER SPRAY

Excellent creeping properties ensure very good moisture displacement

Prevents freezing in winter, as no moisture can accumulate

Contains corrosion protection additives
Provides permanent protection of locking mechanisms

Resin and acid-free
Sensitive components are not attacked

Silicone-free

Use:
For the care of all types of locks.

Designation Contents Art. No.
Aerosol Can 35 g 893.052
**Multi Function Spray**

**Versatile multi-function spray.**

**Rust penetrating agent**
- Excellent creeping properties ensure quick rust and corrosion penetration

**Lubricant**
- Very good lubrication properties
- Remedies creaks and squeaks
- Reduces friction and wear

**Cleaner**
Great cleaning power is ensured thanks to penetration under dirt, grease and oil residue

**Corrosion protection**
Best possible cling to metals. A thin viscous protective film prevents moisture on even the smallest uneven spots and protects against rust and corrosion.

**Contact spray**
Water- and moisture-displacing properties and excellent creeping properties improve electrical conductivity and remedy leakage current.

**Resin, acid, and silicone free**

**Does not attack rubber, paint or plastics**

**Use:**
- Loosens rusted bolts, pipe fittings, screws, nuts, joints, bowden cables, shafts, locks
- Lubricates closures, hinges, bushings, chains, door locks
- Stops squeaking and creaking and frees up movement of stuck or jammed parts
- Cleans and cares for plastic and metal parts such as coverings and housings
- Prevents corrosion of metals and electrical modules, cable connections, relays, plugs, couplings, etc.
- Prevents icing of cylinder locks and closures
- Penetrates and displaces moisture in electrical and electronic applications

**Technical Data**
- Colour: Transparent bright yellow
- Density: 0.790 g/ml
- Temperature range: -30 °C to +130 °C (-22 °F to +266 °F)
- Base oil viscosity: 30 cSt at 40 °C
Multi-plus

Synthetic, physiologically safe multi-function spray with high-end properties for universal use

Can be used in areas in which food is processed or stored. NSF H1
- In this context, the product may come into contact with foodstuffs for occasional, technically unavoidable reasons.

A product for a wide spectrum of applications
- Rust penetrating agent with creeping properties
- Wear reducing lubricant
- Good long-term corrosion protection
- Reliable release agent

No danger symbols such as Xi, Xn, F, F+ or N
- Suitable for use in physiologically and ecologically sensitive areas
- Low danger potential
- Safe working

A product for a wide spectrum of applications
- Rust penetrating agent with creeping properties
- Wear reducing lubricant
- Good long-term corrosion protection
- Reliable release agent

Colourless, non-discolouring
- Can be used on bright backgrounds
- No discolouration in the case of occasional contact with the product

Free from white oil / mineral oil

Good material compatibility

Resin-, acid- and silicone-free

Colourless, non-discolouring
- Can be used on bright backgrounds
- No discolouration in the case of occasional contact with the product

Areas of Application:
For the lubrication and maintenance of connecting joints, chains, seals and moving parts in automotive engineering, as well as in critical areas of the food, pharmaceutical, printing and paper industries. As a release agent, for corrosion protection and for all applications in which the use of conventional products on a mineral oil basis or of critical additives and solvents is not desired.

<table>
<thead>
<tr>
<th>Contents</th>
<th>Art. No.</th>
</tr>
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<tbody>
<tr>
<td>332 g</td>
<td>893.056</td>
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</table>

Technical Data

<table>
<thead>
<tr>
<th>Chemical basis</th>
<th>Synthetic oil with multi-functional additive combination</th>
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</thead>
<tbody>
<tr>
<td>Density at 20 °C (active substance)</td>
<td>0.83 g/cm³</td>
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<tr>
<td>Temperature range</td>
<td>-50 °C to +210 °C</td>
</tr>
<tr>
<td>Basic oil viscosity at 40 °C</td>
<td>32 mm²/s</td>
</tr>
</tbody>
</table>

OIL

FLUID GREASE

GREASE
MULTI-PURPOSE GREASE II

Lithium saponified, high-pressure resistant graphite grease with EP additives

- High pressure resistant thanks to EP additive
- Excellent anti-seizing properties thanks to graphite
- Good sealing effect and corrosion protection
- Very good dust, dirt and water-repellent properties
- Silicone- and resin-free
- Comes in practical “pull off” cartridge

Application:
For average- and heavy-load anti-friction, slide, ball and roller bearings, shafts, rotary joints and assemblies, sideways and guides, spline shafts, joint rods, hinges, hydraulic units, etc.

Recommended: Hand-Lever Grease Gun Art. No. 986.00

Note:
Greases are delivered in plastic cartridges! The plastic cartridges improve storage (they prevent the grease from oozing out in high temperature conditions). Store cartridges upright in a cool, dry place! The operating instructions of the vehicle, machinery and aggregate manufacturers must be observed!

Technical Data:

| Soap base | Lithium 12 hydroxy stearate |
| Colour | Grey black |
| NLGI Class (DIN 51818) | 2 |
| Temperature range | -20 °C to +130 °C (-4 °F to +266 °F) |
| Basic oil viscosity at 40 °C | 60 mm²/s |
| Drop point (DIN ISO 2176) | 190 °C |
| Worked penetration (DIN ISO 2137) | 280 |
| Corrosion protection (SKF Emcor Test, DIN 51802) | 0 |
| VKA welding load (51350) | 2400 N |
| Designation pursuant to DIN 51502 | KP2k30 |

MULTI-PURPOSE GREASE III

Physiologically safe, colourless grease with multi-functional additive combination

- Can be used in areas in which food is processed or stored. NSF H1
- In this context, the product may come into contact with foodstuffs for occasional, technically unavoidable reasons.

Good adhesive properties

Stable against pressure and oxidation-resistant

Supports quality of seals

Dust and water-repellent

Resin, acid and silicone-free

Safety product

- Especially user-friendly and secure handling
- Improved workplace safety and health protection
- Free from mandatory warning symbols

Recommended: Hand-Lever Grease Gun Art. No. 986.00

Note:
Greases are delivered in plastic cartridges! The plastic cartridges improve storage (they prevent the grease from oozing out in high temperature conditions). Store cartridges upright in a cool, dry place! The operating instructions of the vehicle, machinery and aggregate manufacturers must be observed! For further information see the technical information leaflet.

Application:
For the lubrication and care of machines, plain bearings and anti-friction bearings, for long term lubrication in wet rooms and areas as well as in critical areas in the food, pharmaceutical, printing and paper industries.

Technical Data:

| Soap base | Anorganic |
| Colour | Transparent |
| NLGI Class (DIN 51818) | 2 |
| Temperature range | -20 °C to +150 °C (-4 °F to +302 °F) |
| Basic oil viscosity at 40 °C | 100 mm²/s |
| Drop point (DIN ISO 2176) | None |
| Worked penetration (DIN ISO 2137) | 285 |
| Corrosion protection (SKF Emcor Test, DIN 51802) | 0 |
| VKA welding load (51350) | 1800 N |
| Designation pursuant to DIN 51502 | KP2K20-30 |
HIGH-PERFORMANCE GREASE

Art. No. 893.8804  25 kg

Lithium-complex lubricating grease with semi-synthetic oil base

Meets specifications MAN 284, MB 265.1 and exceeds MB 267
  • Highest quality through compliance with specifications of leading vehicle manufacturers

Wide range of applications
  • One single lubricant for most lubricating points, resulting in simpler stock-keeping and highest degree of application safety

Very high pressure absorption capacity

Good corrosion protection

Water resistant

Free from silicone, acids and resins

Areas of application:
For lubricating points on commercial vehicles subject to medium or high loads, such as wheel bearings (axle bearings), driveshaft bearings, axle drives, trailer couplings, loading tailgates, wheel hubs, universal joints, steering knuckles, wheel suspensions, lifting gear, hand brake linkage, tipper bearings, semi-trailers, etc.

Note: Store in a cool, dry place!
  • The operating instructions of the aggregate and vehicle manufacturers must be observed! For further information please refer to Technical Information booklet!
  • Not suitable for lubricating points, such as tie rod yokes, for which lubricants with solid lubricant content are specified.

Technical Data

<table>
<thead>
<tr>
<th>Specification base</th>
<th>Lithium complex</th>
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<tbody>
<tr>
<td>Colour</td>
<td>Light yellow</td>
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<tr>
<td>NLGI class (DIN 51818)</td>
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</tr>
<tr>
<td>Temperature range</td>
<td>-30 °C to +150 °C (22 °F to +302 °F)</td>
</tr>
<tr>
<td>Permanent lubrication</td>
<td>+200 °C (392 °F)</td>
</tr>
<tr>
<td>Short period</td>
<td>100 mm²/s</td>
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<tr>
<td>Drop point (DIN ISO 2176)</td>
<td>above 260 °C [500 °F]</td>
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<tr>
<td>Worked penetration (DIN ISO 2137)</td>
<td>265 to 295</td>
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<tr>
<td>Water resistance (DIN 51 807 T1)</td>
<td>1-90</td>
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<tr>
<td>Corrosion protection (DIN 51 802)</td>
<td>Corrosion grade 0</td>
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<tr>
<td>Meets specifications</td>
<td>MAN 284, MB 265.1 and exceeds MB 267</td>
</tr>
<tr>
<td>Designation according to DIN 51 502</td>
<td>KF 2P 30</td>
</tr>
</tbody>
</table>

SIG 3000

Super impact grease for fleets and heavy equipment.
  • Multi-purpose grease fortified with special additives enabling it to withstand the heavy impact and pounding pressures common to heavy equipment
  • Special additive package allows the grease to stay in place and not to spatter or pound out of the bearing or grease fitting
  • Long-lasting under extreme pressure and high impact
  • 65,000 psi/65 Timken load*  
  • Temperature resistance to 285 °C (545 °F)
  • Superior water resistance and resists most acids, dirt, salt spray, steam, dust, dirt and weather
  • Contains extra rust, corrosion and oxidation inhibitors
  • Synthetic formula will not burn grass on golf courses

* Timken load is a qualitative measure that indicates the possible performance of extreme pressure additives (EP). A measure of 35 or higher indicates the presence of extreme pressure additives. EP additives are especially beneficial in applications that experience high axial or thrust loads. EP additives are also shown to reduce fatigue on bearings.

Application:
Recommended for heavy equipment and fleets. As well, any application where high heat and/or pressure is present, ie: food plant steam room*, mining operations, etc. Also excellent for motorcycle and snowmobiles as it won’t fling off important parts.

Note: Greases are delivered in plastic cartridges! The plastic cartridges improve storage (they prevent the grease from oozing out in high temperature conditions). Store cartridges upright in a cool, dry place! The operating instructions of the vehicle, machinery and aggregate manufacturers must be observed! For further information see the technical information leaflet.

Recommended:
Hand-Lever Grease Gun Art. No. 986.00

Technical Data

<table>
<thead>
<tr>
<th>Colour</th>
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<tbody>
<tr>
<td>Thickener</td>
<td>Clay</td>
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<tr>
<td>Penetration (ASTM D-2177)</td>
<td>245-265 mm</td>
</tr>
<tr>
<td>NLGI Grade</td>
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<tr>
<td>Dropping Point (ASTM D-526)</td>
<td>-288°C (+550°F)</td>
</tr>
<tr>
<td>Timken OK Load (ASTM D-2209)</td>
<td>65 lbs</td>
</tr>
<tr>
<td>Water resistance</td>
<td>Excellent</td>
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<tr>
<td>Acid resistance</td>
<td>Excellent</td>
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<tr>
<td>Rust resistance</td>
<td>Excellent</td>
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<tr>
<td>Base oil viscosity</td>
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<tr>
<td>SUS @100°F</td>
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<tr>
<td>SUS @ 40°C</td>
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<tr>
<td>SUS @ 210°F</td>
<td>151</td>
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<tr>
<td>SUS @ 100°C</td>
<td>11.7</td>
</tr>
</tbody>
</table>
LOW TEMPERATURE SYNTHETIC GREASE

A synthetic heavy-duty, multi-purpose lubricant with PTFE micro powder.

Features:
- Product carries a synthetic base with added PTFE micro powder to make a lubricant with long lasting protection against friction, wear, rust and corrosion.
- Stable under extreme temperature conditions (from -43°C/-45°F up to 232°C/450°F). It will not melt, evaporate, separate or form gummy deposits due to temperature changes.
- Impervious to salt water.
- Dielectric and compatible with most other greases.
- Does not contain silicone. Safe to be used in body shop environments.
- NSF H1 registered food grade lubricant.
- Environmentally friendly and biodegradable.
- Carries the Kosher certification.

Application:
Can be used in hubs, axles, chassis, shocks, springs, wheel bearings, fifth wheels, trailer and buddy bearings. Suitable for caliper assembly and as a bearing grease. Designed to be used in food processing equipment, dielectric applications as a battery protector, weight and fitness equipment, lawn mowers, garage doors, snow blowers, sewing machines, garden and farm equipment

<table>
<thead>
<tr>
<th>Colour</th>
<th>Contents</th>
<th>Art. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Translucent White</td>
<td>397 g</td>
<td>890.602</td>
</tr>
</tbody>
</table>

PREMIUM MOLY GREASE

Non-melt grey coloured lubricant containing molybdenum disulphide.

- Fortified to provide anti-wear and low friction performance through a wide temperature range.
- The molybdenum disulfide enables reduction of friction and protects against excessive wear from extreme loads, galling and seizing.
- The protective mechanism of Würth Premium Moly Grease, acts by plating the metal surfaces, imparting extra protection and extending the lubrication cycle.
- Exceptionally resistant to most acids, salt spray, steam, dirt, dust, water, oxidation and weather.
- Has excellent adhesive and cohesive properties, as well as high shock protection.
- Protects equipment indoors or outdoors, even under high temperatures and heavy loads.

Technical Data
- Moly for Extra EP Ability.
- 288°C (550°F) Dropping Point
- Non-melt grease
- 65 Timken OK Load
- Weather Resistant
- Excellent lubricity and a low coefficient of friction

Areas of Application:
Construction equipment, farm equipment, cotton gins, bottling plants, automotive, marine, steel mills, industrial plants, oil field equipments, paper mills, asphalt plants, trucking industry

<table>
<thead>
<tr>
<th>Colour</th>
<th>Contents</th>
<th>Art. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dark Grey</td>
<td>397 g</td>
<td>890.603</td>
</tr>
</tbody>
</table>

JANUARY LUBRICANTS & GREASES 19
**PREMIUM WHITE LITHIUM GREASE**

**Art. No. 893.10411**  396 g

**All purpose white spray lubricant**
- Lubricates and protects against corrosion
- Reduces friction and wear on all moving parts
- Safe on paints and plastics
- Water resistant
- Withstands moisture and high heat
- Good resistance to washout
- Stainless and non-toxic
- Temperature range: -5 °C to +110 °C (23 F to +230 °F)

**Application:**
Lubrication of door hinges, hood latches, trunk latches, hatchback struts, seat tracks, jacks, winches, gear shift mechanisms, steering linkages, garage door and delivery truck door tracks. Ideal for all types of metal to metal lubrication.

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**WHITE LITHIUM GREASE**

**Adherent lubricating white grease**
- Displaces water
- Anti-corrosive
- Will not run on vertical surfaces
- Temperature range: -10 °C to +120 °C (14 °F to 248 °F)

**Applications:**
Door strikers, door locks and hinges, brake parts, safety check straps on doors, switching mechanisms, hood strikers, hood hinges, truck strikers

**Description** | **Art. No.**
--- | ---
300 g Spray Can | 893.870300
200 g Tube | 893.870200

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**TRUE GLIDE**

**Heavy-duty, multipurpose synthetic grease with PTFE**

**Features:**
- A synthetic lubricant that provides long-life protection against friction, wear, rust, and corrosion
- Compatible with most other lubricants and will not run, drip, evaporate or form gummy deposits
- Will not melt or separate
- It is an excellent dielectric and operates over a temperature range from -42 to 232 °C [-45 to 450 °F]
- NSF approved for incidental food contact [H-1]. NLGI grade 2
- Compatible with most rubbers and plastics
- Silicone-free

**Applications:**
- Ideal for use on plain, anti-friction, ball, roller and wheel bearings, cams, slides, valves, conveyors, chains, hubs, axles, shocks, springs, etc.

**Directions:**
- Clean and dry area to be treated. When using on bearings, wipe clean before pumping grease to avoid contamination. Do not over-grease, as excessive heating may result. Periodically clean and repack bearings with fresh grease. For best results, purge other greases before use. Re-apply as necessary.

<table>
<thead>
<tr>
<th>Container</th>
<th>Contents</th>
<th>Art. No.</th>
<th>P. Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tube</td>
<td>150 g</td>
<td>893.899</td>
<td>1</td>
</tr>
</tbody>
</table>
SILICONE SPRAY GREASE

Art. No. 893.223  447 g

White coloured, water-displacing and insulating silicone grease

- Outstanding sliding capability on almost all surfaces
- Extremely high water-displacing properties
- Very high electrical resistance, thus very good insulating properties (≈ 14.7 kV/mm)
- Temperature resistance range from -40 °C to +300 °C (-40 °F to +572 °F)
- Colour: transparent when sprayed, after application a white film of lubricant remains on the treated surface

Application Areas:
Suitable for lubricating door bolts, glide rails, door and furniture hinges and drawers, etc. Also suitable for protection against moisture and corrosion in electrical components and wiring. Also ideal for lubricating switches.

SILICONE SPRAY

- The useful temperature range of the lubricant film of Würth Silicone spray is approximately: -20°C to 150°C
- Anti-static
- Ozone friendly
- Will not stain
- Also serves as a lubricant
- Leaves high shine to plastic parts such as bumpers, radiator grills, spoilers, lining strips, vinyl roofs, etc.
- Prevents these parts from becoming porous

Description | Contents | Art. No.
--- | --- | ---
German | 305 g | 893.221
Domestic | 320 g | 893.221320

PREMIUM SILICONE SPRAY

Art. No. 893.92211  276 g

Excellent lubricant made out of 100% pure viscosity silicone and release agent.

For use in the automotive, industrial and household areas

Automotive:
- Lubricates and prevents squeaks of rubber parts around windows, doors, trunk lids, mounts and contact points on hoods
- Prevents rubber from freezing and sticking to metal and keeps it flexible
- Waterproofs electrical and ignition systems
- Spray and buff to rust-proof chrome and other metals

Industrial:
- Adds longer life to cutting blades
- Lubricates, waterproofs and rustproofs machinery
- Use on conveyor belts and as a release agent for heat sealing equipment

Household:
- Lubricates garage doors, windows, doors, drawers and cabinets
- Rustproofs tools and barbecues
FOOD GRADE SILICONE SPRAY

Art. No. 893.221001 386 g

High quality, physiologically safe anti-friction and release agent.
Can be used in areas in which food is processed or stored. In this context, the product may come into contact with foodstuffs for occasional, technically unavoidable reasons.

Contains highly concentrated high-quality silicone oils
- Optimum anti-frictional and lubricating properties
- Prevents sticking
- Eliminates unpleasant squealing noises
- Prevents wear

Extremely good temperature resistance from -40 °C to +232 °C (-40 °F to +450 °F)
Wide field of application, also in the field of high temperatures and as a mould release agent

Colourless, non-colouring
- Can be used on bright backgrounds
- No discoloration in the case of occasional contact with the product

Safety product
- Non-toxic
- Non-chlorinated
- Especially user-friendly and safe handling
- Improved workplace safety and health protection
- Reduced marking with danger symbols

Good material compatibility

Moisture repellent, protects e.g. rubber parts against frost

Application:
As an anti-friction agent and for the lubrication of all moving parts of machines, especially in the field of plastics, in automotive engineering, in the food, pharmaceutical, printing and paper industries. Also as a mould release agent in the plastics processing industry and for the protection and care of surfaces.

<table>
<thead>
<tr>
<th>Chemical basis</th>
<th>Silicone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>Clear</td>
</tr>
<tr>
<td>Temperature range</td>
<td>-40 °C to +232 °C ( -40 °F to +450 °F)</td>
</tr>
<tr>
<td>Odour</td>
<td>Mild odour</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.726</td>
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</tbody>
</table>

SILICONE LUBRICATION COMPOUND

Art. No. 890.2211 226 g

100% Silicone Lubricating Compound
- Excellent general rubber and plastic lubricant
- Provides a moisture barrier
- Will not cause rubber brake components to swell
- Ideal for lubricating rubber parts in brake system, as well as slider pins during assembly
- Shelf life: 12 months
- Temperature range: -56 °C to +230 °C (-69 °F to +446 °F)
- NSF Certified

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<tr>
<td>Specific Gravity</td>
<td>0.726</td>
</tr>
</tbody>
</table>
**CU 800**

**Resistant to high temperature and pressures, highly adhesive copper lubricating, release and corrosion protection paste**

**Very high resistance**
- Temperature range from -40 °C to +1200 °C (-40°F to +2192°F)
- Resistant to water, alkaline solutions and acids

**Great, long-lasting lubricating effect**
- Provides long-term protection against burning-on and seizing, cold welding, wear, corrosion and frictional corrosion

**Silicone-free**

**Use:**
- **Brakes:**
  - Back sides of disc brake pads (prevents squeaking), fastening and individual parts

- **Battery terminals:**
  - Contact protection, nozzles of arc welding torches (prevents formation of welding beads)

- **Seals:**
  - Prevents baking on of solid seals

- **Miscellaneous:**
  - Screw connections (exhaust manifold screws, spark plug threads, etc.), bearings, pivot points, joints, sliding surfaces

**Consistency** | **Art. No.** | **Qty.**
--- | --- | ---
CU 800 Anti-Seize Spray | 893.800 | 198 g
CU 800 Anti-Seize Paste | 893.8001 | 100 g
CU 800 Anti-Seize Paste 1 kg | 893.8002 | 1 kg
CU Copper Paste | 893.8003 | 300 g
Anti-Seize Copper Paste with brush | 890.920284 | 283 g

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**AL 1100**

**High temperature aluminum paste with excellent adhesive lubricating properties and corrosion protection**

- Temperature resistant from -80 °C to +1100 °C (-112 °F to +2102 °F)
- Aluminum copper based high performance anti-seize lubricant
- Resistant to water, alkalis and acids
- Prevents seizing, fusing, wear and corrosion

**Applications:**
- **Brakes**
- **Batteries**
- **Battery terminal posts**
- **Gaskets**
- **Screw connections**
- **Exhaust**

**Consistency** | **Art. No.** | **Qty.**
--- | --- | ---
Aluminum Anti-Seize Spray | 893.1100 | 249 g
Aluminum Anti-Seize Paste | 893.11010 | 1 kg
High performance extreme pressure lubricant

Features:
- Smooth, non-separating and non-hardening formulation, provides extreme pressure lubricating properties
- Temperature resistance up to 343°C (650°F)
- Free from lead, copper, and halogenated compounds
- NLGI grade 1
- Withstands pressures up to 500,000 psi
- Meets requirements of MIL-T-83483

Application:
To prevent corrosion, galling, seizing and galvanic pitting between metal parts such as nuts and bolts, valve assemblies, boom guides, chain drives, shafts, taps and drills, press assemblies, metal fittings, pipe fittings, pump mountings, and gaskets.

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<tbody>
<tr>
<td>Canister with brush</td>
<td>284 g</td>
<td>893.922290</td>
<td>1</td>
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</tbody>
</table>

MOLY 50S