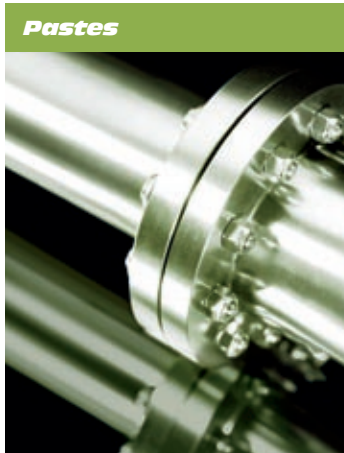


## ***Lubrication of screws in the chemical industry***

High-temperature paste, high purity



### **Advantages and benefits**

- Prevents seizing and binding of screw threaded connections
- Separates up to 1400°C
- Does not react with metal surfaces
- Prevents material changes
- Suitable for V2A and V4A steels
- Low content of metal and alloys
- Free of sulphides, chlorides and fluorides

Everywhere in the chemical industry screws are used to connect different components. Thus, for example, approx. 130,000 screws varying between sizes M5 and M130 had to be loosened and checked at pipings, instrumentation and process control devices, valves, fittings, tanks and containers, heat exchangers during the routine shutdown of the OMV refinery in Schwechat, Vienna in Autumn 2005. To enable time and cost savings in the process “smooth” assembly of the screw threaded connections has to be ensured. For the screw paste this means that a constant coefficient of sliding friction has to be ensured in order to ensure the optimal ratio of tightening torque and attainable pre-tension even at the most varied screw dimensions and materials. In the case of screws made of high-alloy steels, cold welding must furthermore be avoided reliably.



Non-destructive dismantling of the screw threaded connection for service work or during the next shutdown is just as important. In the aggressive environment of a refinery the good protection of the paste against corrosion is decisive in this respect. However, the prevention of burning-together and of binding of the screw threaded connection at high temperatures is also very important.

## Lubrication of screws in the chemical industry

### Example of use: High-temperature paste, high purity

During the plant revision of the OMV refinery in Schwechat in Autumn 2005 OKS 217 was generally used as a screw paste for assembly lubrication at all the screw threaded

connections in order to prevent seizing, burning-together and corrosion. The overall requirement in the context of the shutdown activities amounted to approx. 2.5 t.



### Product description

OKS 217 based on a semi-synthetic oil with a mixture of various solid lubricants as well as additives, e.g. for corrosion protection. The special combination of solid lubricants does not react with metal surfaces. In addition to the extremely low contents of metals and metal alloys, OKS 217 only contains traces of sulphur, chlorine and fluorine. Lead compounds, sulphides, chlorides or fluorides are not contained at all.

### Further OKS products for the chemical industry

<b>OKS 1110</b>	For lubricating fittings, seals, plastic parts, etc. in operation or during assembly
<b>OKS 611</b>	For rust removal, lubrication
<b>OKS 641</b>	For rust removal, cleaning, protection and lubrication
<b>OKS 701</b>	For lubricating measuring instruments
<b>OKS 2611</b>	For cleaning the lubrication points before use of the lubricants
<b>OKS 2621</b>	For cleaning electrical contacts and switches
<b>OKS 2801</b>	For ensuring imperviousness of lines under pressure