



## Better without: PTFE-free silicone grease for the food industry

### In practice: New, PTFE-free silicone grease avoids delivery problems in central lubrication systems.

Chemie-Technik GmbH is expanding its wide range of ELKALUB high-performance lubricants with a polyurea thickened silicone grease. The ELKALUB GLS 762/N0 grease was specifically developed as an alternative to PTFE-thickened silicone greases for problem-free use in central lubrication systems. The trigger for the new development was a blocked distributor in the automatic lubrication system of a well-known Bavarian brewery.

Until now, the use of polytetrafluoroethylene thickeners has been customary for the approval of silicone greases for the food sector. Although PTFE is an excellent solid lubricant, its use with silicone oil can cause problems. "Silicone greases that are thickened with polytetrafluoroethylene can separate under unfavorable conditions. Because of their high specific weight, the heavy PTFE particles separate from the lighter silicone oil. Such a grease separation can block the piping in central lubrication systems. Locations with low flow velocities and poor flow due to built-in components or dead volumes, which also occur in automatic lubrication systems on distributors and valves, are particularly susceptible to this", says Dr. Frank Schulz, Head of Technical Development at Chemie-Technik GmbH, Vöhringen, who develops the ELKALUB lubricants with his team.



Exactly this problem occurred with a longstanding Bavarian brewery customer a year ago: A PTFE-thickened silicone grease blocked a progressive distributor on the central filler carousel (Fig. 1) and threatened to shut down the filling plant.

Fig. 1: Filler carousel with central lubrication and progressive feeder

The specialists at Chemie-Technik responded quickly with a new development: The polyurea-thickened silicone oil ELKALUB GLS 762/N0 does not require polytetrafluoroethylene and is equipped with a so-called NSF H1 registration for the food sector. The grease of NLGI class 0 was produced in a very short time as a sample, the expensive distributor was cleaned and repaired by the responsible customer advisor and the central lubrication system of the filler carousel was put into operation again.



Fig. 2: Progressive distributor before dismantling



*Twelve months and a few thousand hectoliters of beer later: "The new grease shows no separations, the progressive distributor works without problems, the bottling plant is running and the customer is satisfied.", says Dr. Frank Schulz.*

Fig. 3: The PTFE-free silicone grease for food applications ELKALUB GLS 762/N0 is available in a 5 kg bucket

More about ELKALUB GLS 762/N0

[ELKALUB GLS 762/N0 in the Online-Produktfinder](#)