

# Klüber Summit Varnasolv, Summit Varnasolv FG

Concentrated, synthetic conditioners for compressors, hydraulic systems, gears, heat transfer and other oil circulation systems and ingredient for H1 and HT1 lubricants (only Klüber Summit Varnasolv FG).



## Your benefits at a glance

- Dissolves varnish and carbon deposits, thus reducing maintenance and cleaning costs – no dismantling of systems needed prior to cleaning
- Used during operation, no downtime of machines for cleaning
- Easy application due to neutral behaviour towards seals when used at 10 % concentration in operating oil – reduced operating and maintenance costs due to higher efficiency (e.g. compressor) and longer service life of the fresh oil fill
- Furthermore, Klüber Summit Varnasolv FG (food-grade) is registered as HX1 and therefore physiologically safe for use in sensitive areas of the food-processing and pharmaceutical industries. If the product is added to an H1 operating oil for cleaning, the system's H1 status is retained and the system can continue to run throughout the cleaning operation.

## Your requirements - our solution

Klüber Summit Varnasolv and Klüber Summit Varnasolv FG are concentrated conditioners on the basis of a synthetic ester oil and contain additives with a cleaning effect.

These concentrated conditioners are miscible with mineral oils, ester oils and hydrocarbon oils as well as with oils based on polyglycol, which makes them the perfect solution enabling the efficient and clean operation of your system in the long term.

## Application

For you as a manufacturer of industrial or consumer goods regular inspection of your production systems is indispensable. For trouble-free operation, many of your components and machines require special maintenance and in particular cleaning. Klüber Summit Varnasolv and Klüber Summit Varnasolv FG have been especially designed for cleaning your screw-type compressors, hydraulic systems, gears, heat transfer and other oil circulating systems like calendars. A major benefit of both products is their high degree of compatibility with customary oil compositions.

Mineral oil-based compressor oils, in particular, can cause varnish and carbon build-up, especially in oil-injected screw compressors and rotary vane compressors, which settle in the entire oil circuit. In hydraulic systems, mineral oils can cause glueing of valves on hot surfaces, resulting in high energy consumption, clogged oil ducts and filters and high maintenance costs and downtime of your system.

Klüber Summit Varnasolv and Klüber Summit Varnasolv FG are specially developed concentrated fluid conditioners which dissolve sticky residues, varnish and carbon buildup during operation and keep them suspended in the compressor oil. Therefore, it is no

longer necessary to dismantle the system for cleaning. Upon cleaning, the oil mixture containing these residues is drained and the system filled with fresh oil.

## Application notes

Klüber Summit Varnasolv, or Klüber Summit Varnasolv FG in sensitive food-processing applications, is added to the oil fill at a concentration of 10 % (1 l of Klüber Summit Varnasolv, Klüber Summit Varnasolv FG for a 10 l oil fill). A corresponding amount of oil has to be drained from the system beforehand. Let the unit continue operating for an additional 40 to 60 hours (cleaning process) at an operating oil temperature of 70 – 80 °C, if possible, to dissolve all varnish and carbon buildup or sticky residues. The oil fill is drained after a maximum of 80 hours. Make sure the oil is also removed from tubes, filter housings and dead corners, because the used oil may severely affect the fresh oil fill. Then exchange filters and oil separators and refill the unit with the fresh oil.

Especially when using the product in gears and other highly loaded units, please take the viscosity and the wear protection behaviour of the oil/Varnasolv mixture into consideration when adding Varnasolv to the oil fill.

The experts at Klüber Lubrication will be pleased to assist you in cleaning your machines with Klüber Summit Varnasolv or Klüber Summit Varnasolv FG.

## Material safety data sheets

Material safety data sheets can be requested via our website [www.klueber.com](http://www.klueber.com). You may also obtain them through your contact person at Klüber Lubrication.

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Pack sizes	Klüber Summit Varnasolv	Klüber Summit Varnasolv FG
Canister 5 l	+	+
Canister 20 l	+	
Bucket 19 l	+	+
Drum 200 l	+	
Drum 208 l	+	+

Characteristics	Klüber Summit Varnasolv	Klüber Summit Varnasolv FG
Article number	050017	050216
Appearance	clear	clear
Colour space	yellow	yellow
NSF H1, HT1 registration number		164805
NSF HX-1, HTX-1 registration number		164805
Density, DIN 51757, 20°C	approx. 0.97 g/cm <sup>3</sup>	approx. 0.94 g/cm <sup>3</sup>
Flash point, DIN EN ISO 2592, Cleveland open cup	≥ 210 °C	≥ 200 °C
Kinematic viscosity, DIN EN ISO 3104 / DIN 51562-1 / ASTM D445 / ASTM D7042, 40°C	approx. 30 mm <sup>2</sup> /s	approx. 32 mm <sup>2</sup> /s
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	60 months	36 months

## Klüber Lubrication – your global specialist

Innovative tribological solutions are our passion. Through personal contact and consultation, we help our customers to be successful worldwide, in all industries and markets. With our ambitious technical concepts and experienced, competent staff we have been fulfilling increasingly demanding requirements by manufacturing efficient high-performance lubricants for more than 90 years.

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