

# Klüberfood NH1 87-703

Synthetic lubricating grease for valves and fittings with EPDM seals



## Your benefits at a glance

- Extended relubrication intervals and seal life due to the good compatibility with EPDM
- High resistance to many types of media such as disinfectants, cleaning agents, water, steam ensuring maximum protection of seals and reducing operating costs
- NSF ISO 21469 certified - supports the compliance with the hygienic requirements in your production plant. You will find further information about ISO standard 21469 on our website [www.klueber.com](http://www.klueber.com)

## Your requirements - our solution

Klüberfood NH1 87-703 is a special lubricating grease based on highly viscous silicone oils and PTFE solid lubricants.

Klüberfood NH1 87-703 has been developed for the lubrication of components in process equipment requiring a high level of cleanliness.

The product is registered as NSF H1 and complies with FDA 21 CFR § 178.3570. It was developed for incidental contact with products and packaging materials in the food-processing, cosmetics, pharmaceutical or animal feed industries. The use of Klüberfood NH1 87-703 can contribute to increase safety of your production processes. We nevertheless recommend conducting an additional risk analysis, e.g. HACCP.

## Application

Klüberfood NH1 87-703 is suitable for the lubrication of valves and fittings incorporating EPDM seals in the food-processing and pharmaceutical industries. Seals lubricated with Klüberfood NH1 87-703 show lower friction values and wear sets in later.

Klüberfood NH1 87-703 may also be used for low-speed rolling bearings subject to very low loads (C/P > 30) used in the beverage industry where an EPDM-compatible food-grade lubricant is required.

Klüberfood NH1 87-703 is resistant to cold and hot water and steam as well as to many disinfectants and cleaning agents.

The tests conducted by the German Research Institute Weihenstephan confirm Klüberfood NH1 87-703 leaves the formation of froth and taste of beer unaffected.

## MOSH-MOAH Hint

The chromatographic measurement of MOSH can also detect saturated hydrocarbons of form other sources than mineral oil so it may be possible for chromatographic MOSH peaks to be detected in some Klüber Lubrication H1 products.

## Application notes

Klüberfood NH1 87-703 is applied by means of spatula, grease gun or directly from the tube. For highly viscous lubricants, the application method should be chosen with particular care. The intake of air should be avoided, otherwise oxidation may occur at high pressure which may in turn lead to oxidative disintegration of the product.

For this reason we recommend pumping the product with the lowest pressure possible and using lines with wide diameters. Please note, however, that due to different system configurations and application conditions the pumpability of the product has to be confirmed with the system manufacturer for each individual application. We will be pleased to provide assistance in this matter.

As a rule, users should make sure to use only new high-pressure pumping lines for their lubricants.

As a precaution in the event of grease leakage, we recommend wearing suitable protection gear (e.g. safety goggles).

## Materials compatibility

Klüberfood NH1 87-703 is neutral towards most metals, thermoplastics and elastomers. Owing to the many different elastomer and plastic compositions their compatibility should be checked prior to series applications.

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## 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.

Pack sizes	Klüberfood NH1 87-703
Cartridge 500 g	+
Bucket 5 kg	+
Characteristics	Klüberfood NH1 87-703
Article number	022259
Mineral Oils associated with MOSH (Mineral Oil Saturated Hydrocarbons) / MOAH (Mineral Oil Aromatic Hydrocarbons), (Information based on recipe. The presence of impurities, cannot be ruled out.)	Not intentionally added
Colour space	white
Texture	homogeneous
Service temperature, lower limit	-45 °C
Service temperature, upper limit	150 °C
NSF H1 registration number	155194
Density, Klüber method: PN 024, 20°C	approx. 1.31 g/cm <sup>3</sup>
Worked penetration, DIN ISO 2137 / ASTM D217, 25°C, lower limit	220 0.1 mm
Worked penetration, DIN ISO 2137 / ASTM D217, 25°C, upper limit	250 0.1 mm
Shear viscosity, Klüber method: PN 008@DIN 53019-1, equipment: rotational viscometer, 25°C, 300 s <sup>-1</sup> , lower limit	8000 mPas
Shear viscosity, Klüber method: PN 008@DIN 53019-1, equipment: rotational viscometer, 25°C, 300 s <sup>-1</sup> , upper limit	12000 mPas
Water resistance, DIN 51807-1, 3 h, 90°C	0 - 90 rating
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	36 months

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## 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 95 years.

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The data in this document is based on our general experience and knowledge at the time of publication and is intended to give information of possible applications to a reader with technical experience. It constitutes neither an assurance of product properties nor does it release the user from the obligation of performing preliminary field tests with the product selected for a specific application. All data are guide values which depend on the lubricant's composition, the intended use and the application method. The technical values of lubricants change depending on the mechanical, dynamical, chemical and thermal loads, time and pressure. These changes may affect the function of a component. We recommend contacting us to discuss your specific application. If possible we will be pleased to provide a sample for testing on request. Klüber products are continually improved. Therefore, Klüber Lubrication reserves the right to change all the technical data in this document at any time without notice.

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