

# Klüberfood NH1 94-301

Synthetic lubricating grease for the food processing and pharmaceutical industries



## Benefits for your application

- **Increased component availability and extended maintenance intervals**
  - due to good wear protection
  - due to good corrosion protection
  - due to good pumpability in centralised lubrication systems
- **Reduces friction and wear in linear guides and ball screws performing micro-movements owing to its good wear protection properties and flow characteristics**
- **ISO 21469 certified - supports the compliance with the hygienic requirements in your production plant. You will find further information on ISO Standard 21469 on our website [www.klueber.com](http://www.klueber.com)**

## Description

Klüberfood NH1 94-301 is a special lubricating grease composed of a highly refined synthetic hydrocarbon base oil and calcium complex thickener. This lubricant is NSF H1-registered and therefore complies with FDA 21 CFR § 178.3570.

Klüberfood NH1 94-301, an NSF H1-registered lubricant, is a contributor towards the supporting of food safety. The use of Klüberfood NH1 94-301 needs to be considered not in isolation but in line with other appropriate actions which have by law to be fulfilled by a food manufacturing plant to allow for food to be manufactured safely.

## Application

Klüberfood NH1 94-301 is used for the lubrication of rolling bearings, plain bearings and linear guides, e.g. in blow moulding equipment.

## Application notes

Klüberfood NH1 94-301 can be applied by brush, spatula, grease gun or centralised lubrication system. Before applying Klüberfood NH1 94-301, all lubrication points should be thoroughly cleaned to ensure maximum hygiene conditions exist, mandatory for food- safe H1 lubrication.

If the production process does not allow cleaning we recommend the existing grease be replaced by purging the system during re-lubrication. Please do not hesitate to contact our Technical Consulting and Sales Departments in respect of grease miscibility, re-lubrication procedures etc.

This product is also available in our automatic lubricant dispenser Klübermatic. Please consult the application engineering experts from Klüber Lubrication to determine whether Klübermatic might be used under the conditions in your processes.

## 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 94-301
Cartridge Polypropylene (PP) 400 g	+
Can 1 kg	+
Bucket 25 kg	+
Cartridge Copolyester Klübermatic STAR 120 ml	+



# Klüberfood NH1 94-301

Synthetic lubricating grease for the food processing and pharmaceutical industries

Product data	Klüberfood NH1 94-301
Article number	096105
NSF-H1 registration	140 682
Lower service temperature	-40 °C / -40 °F
Upper service temperature	140 °C / 284 °F
Chemical composition, thickener	calcium complex soap
Chemical composition, type of oil	synthetic hydrocarbon oil
Colour space	beige
Flow pressure of lubricating greases, DIN 51805, test temperature: -40 °C	<= 1 400 mbar
Density at 20 °C	approx. 0.98 g/cm <sup>3</sup>
Worked penetration, DIN ISO 2137, 25 °C, lower limit value	310 x 0.1 mm
Worked penetration, DIN ISO 2137, 25 °C, upper limit value	340 x 0.1 mm
Shear viscosity at 25 °C, shear rate 300 s <sup>-1</sup> , equipment: rotational viscometer, upper limit value	5 000 mPas
Shear viscosity at 25 °C, shear rate 300 s <sup>-1</sup> , equipment: rotational viscometer, lower limit value	2 500 mPas
Base oil viscosity at 40 °C, calculated value	approx. 300 mm <sup>2</sup> /s
Corrosion inhibiting properties of lubricating greases, DIN 51802, (SKF-EMCOR), test duration: 1 week, distilled water	<= 1 corrosion degree
Oil separation, ASTM D 6184 [FTMS 791 C 321], after 30 h/100 °C	<= 7 % by weight
Four-ball tester, welding load, DIN 51350 pt. 04	approx. 3 000 N
Speed factor (n x dm)	approx. 400 000 mm/min
Drop point, DIN ISO 2176, IP 396	>= 250 °C
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	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 80 years.

**Klüber Lubrication München SE & Co. KG /**  
**Geisenhausenerstraße 7 / 81379 München / Germany /**  
**phone +49 89 7876-0 / fax +49 89 7876-333.**

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.

Publisher and Copyright: Klüber Lubrication München SE & Co. KG. Reprints, total or in part, are permitted only prior consultation with Klüber Lubrication München SE & Co. KG and if source is indicated and voucher copy is forwarded.