Klüberpaste UH1 96-402 Spray

Light-coloured high-temperture paste for the food-processing and pharmaceutical industries

Your benefits at a glance

- Reliable dry lubrication at temperatures from 200 °C to 1200 °C
- Good adhesion to the friction point, also when subject to humidity

Your requirements - our solution

Klüberpaste UH1 96-402 Spray is a high-temperature paste designed for versatile assembly purposes in hygienically sensitive environments. It contains fully synthetic base oils and a special blend of ceramic solid lubricants. Across the “normal” temperature range up to approx. 160 °C, Klüberpaste UH1 96-402 Spray is a water-resistant lubricating and assembly paste providing good adhesion on metals. Under permanently high temperatures up to 1200 °C, its solid lubricating particles remain in the friction contact and protect e.g. fits against tribocorrosion or fretting corrosion.

Klüberpaste UH1 96-402 Spray is NSF H1 registered and therefore in compliance with FDA 21 CFR § 178.3570. The lubricant was developed for incidental contact with products and packaging materials in the food-processing, cosmetics, pharmaceutical or animal feed industries. The use of Klüberpaste UH1 96-402 Spray can contribute to increase reliability of your production processes. Nevertheless it is recommended to conduct an additional risk analysis, e.g. HACCP.

Application

Klüberpaste UH1 96-402 Spray is suitable for a variety of friction points in food-processing and pharmaceutical machines which are subject to high loads

- as an assembly paste for transition and loose fits to prevent fretting corrosion
- as a paste for screw connections based on high-alloy steels to optimise the tightening torque and demounting, even after long operating periods
- as a long-term lubricant for low-speed guide rails, hinges, rollers, etc.

The friction values indicated in the Product data section were measured with two different materials. Other materials have to be checked accordingly.

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

Shake well before use. Ensure sufficient ventilation during spraying as explosive mixtures may form.

Do not spray against naked flame or onto hot or incandescent objects.

Do not use spray in confined areas, e.g. control cabinets.

Observe additional instructions for use in material safety data sheet and on can label.

Before applying Klüberpaste UH1 96-402 Spray, all lubrication points should be thoroughly cleaned using e.g. Klüberfood NK1 Z 8-001 Spray, to ensure maximum hygiene conditions exist, mandatory for food-safe H1 lubrication.

Protect product against direct sunlight and temperatures above 50 °C.

Material safety data sheets

Material safety data sheets can be requested via our website www.klueber.com. You may also obtain them through your contact person at Klüber Lubrication.

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Pack sizes	Klüberpaste UH1 96-402 Spray
Aerosol can 400 ml	+

Hint

Except for the article number and the minimum shelf life, the spray data below refer to the solvent-free spray agent.

Characteristics	Klüberpaste UH1 96-402 Spray
Article number	081254
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.)	Intentionally added
Colour	light grey
Service temperature, lower limit	-30 °C
Service temperature, upper limit	1200 °C
NSF H1 registration number	144396
NLGI grade, DIN 51818	2
Kinematic viscosity of the base oil, DIN EN ISO 3104 / DIN 53000-1, based on standard / ASTM D445 / ASTM D7042, 100°C	approx. 57 mm²/s
Kinematic viscosity of the base oil, DIN EN ISO 3104 / DIN 53000-1, based on standard / ASTM D445 / ASTM D7042, 40°C	approx. 360 mm²/s
SKF-EMCOR, DIN 51802, Klüber method: distilled water, 168 h	≤ 1 corrosion degree
Four-ball tester, welding load, DIN 51350-4	≥ 2500 N
Friction coefficient screw test, hexagon bolts M10 x 30-8.8, DIN EN ISO 4017, tightening speed n = 5 min⁻¹, number of screws = 20, nut M10-8, plain and degreased, face material 42CrMo4 with roughness Ra 1.6, tightening torque MA = 50 Nm, averaged bearing surface friction coefficient (initial tightening), external test	0.13
Friction coefficient screw test, hexagon bolts M10 x 30-8.8, DIN EN ISO 4017, tightening speed n = 5 min⁻¹, number of screws = 20, nut M10-8, plain and degreased, face material 42CrMo4 with roughness Ra 1.6, tightening torque MA = 50 Nm, averaged thread friction coefficient (initial tightening), external test	0.11
Friction coefficient screw test, hexagon bolts M10 x 30-8.8, DIN EN ISO 4017, tightening speed n = 5 min⁻¹, number of screws = 20, nut M10-8, plain and degreased, face material 42CrMo4 with roughness Ra 1.6, tightening torque MA = 50 Nm, standard deviation (S) of averaged bearing surface friction coefficient (initial tightening), external test	0.018
Friction coefficient screw test, hexagon bolts M10 x 30-8.8, DIN EN ISO 4017, tightening speed n = 5 min⁻¹, number of screws = 20, nut M10-8, plain and degreased, face material 42CrMo4 with roughness Ra 1.6, tightening torque MA = 50 Nm, standard deviation (S) of averaged thread friction coefficient (initial tightening), external test	0.009
Friction coefficient screw test, hexagon bolts M10 x 50-A2-70, DIN EN ISO 4017, tightening speed n = 5 min⁻¹, number of screws = 20, material of the nut A2, face material 42CrMo4 with roughness Ra 1.6, tightening torque MA = 40 Nm, averaged bearing surface friction coefficient (initial tightening), external test	0.12

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Characteristics	Klüberpaste UH1 96-402 Spray
Friction coefficient screw test, hexagon bolts M10 x 50-A2-70, DIN EN ISO 4017, tightening speed n = 5 min⁻¹, number of screws = 20, material of the nut A2, face material 42CrMo4 with roughness Ra 1.6, tightening torque MA = 40 Nm, averaged thread friction coefficient (initial tightening), external test	0.11
Friction coefficient screw test, hexagon bolts M10 x 50-A2-70, DIN EN ISO 4017, tightening speed n = 5 min⁻¹, number of screws = 20, material of the nut A2, face material 42CrMo4 with roughness Ra 1.6, tightening torque MA = 40 Nm, standard deviation (S) of averaged bearing surface friction coefficient (initial tightening), external test	0.01
Friction coefficient screw test, hexagon bolts M10 x 50-A2-70, DIN EN ISO 4017, tightening speed n = 5 min⁻¹, number of screws = 20, material of the nut A2, face material 42CrMo4 with roughness Ra 1.6, tightening torque MA = 40 Nm, standard deviation (S) of averaged thread friction coefficient (initial tightening), external test	0.019
Water resistance, DIN 51807-1, 3 h, 90°C	approx. 1 - 90 rating
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	24 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 95 years.

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