Product information

R Series

Synthetic hydrocarbon refrigeration lubricants

Your benefits at a glance

- Withstands severe service conditions
- High viscosity index
- No paraffins

Your requirements - our solution

Summit R Series synthetic hydrocarbon refrigeration lubricants are designed to function under severe service conditions. These fluids have a very high viscosity index, contain no paraffin and are compatible with various fluorinated refrigerants, ammonia, methyl chloride and carbon dioxide. The Summit R Series is completely miscible with petroleum-based fluids.

These fully synthetic lubricants are NSF Registered and meet USDA 1998 (H1) guidelines (lubricants with incidental food contact).

Summit R Series lubricants are Kosher approved and Halal certified. Summit is an ISO 21469 certified facility.

Application

R-100, R-150 and R-200 are designed to operate in rotary compressors.

R-300, R-400 and R-500 are designed to operate in reciprocating compressors.

Material safety data sheets

Material safety data sheets can be requested via our website https://www.klsummit.com. You may also obtain them through your contact person at Summit Lubrication.

Characteristics	R-100	R-150	R-200	R-300
Article number	340518	340113	340475	340519
NSF H1 registration number	136584	139038	136585	136586
Requirements of refrigerator oils, DIN 51503-1, KAA, limited requirements for products with additives	passed	passed	passed	passed
Density, 20°C	approx. 0.825 g/cm³	approx. 0.830 g/cm³	approx. 0.832 g/cm³	approx. 0.837 g/cm³
Flash point, Cleveland open cup	≥ 230 °C	-	-	-
Flash point, ASTM D92, Cleveland open cup	-	≥ 240 °C	≥ 230 °C	≥ 255 °C
Flash point, DIN EN ISO 2592, Cleveland open cup	-	-	-	-
ISO viscosity grade, DIN ISO 3448, ISO VG	32	46	68	100
Kinematic viscosity, DIN EN ISO 3104 / DIN 53000-1, based on standard / ASTM D445 / ASTM D7042, 100°C	approx. 5.8 mm²/s	approx. 7.8 mm²/s	approx. 10.7 mm²/s	approx. 14.9 mm²/s
Kinematic viscosity, DIN EN ISO 3104 / DIN 53000-1, based on standard / ASTM D445 / ASTM D7042, 40°C	approx. 31 mm²/s	approx. 47 mm²/s	approx. 70 mm²/s	approx. 106 mm²/s
Viscosity index, ASTM D2270	approx. 133	approx. 137	approx. 141	approx. 145
Pour point, DIN ISO 3016, ASTM D97, ASTM D5950, ASTM D7346	approx. -65 °C	approx. -61 °C	approx. -57 °C	approx. -52 °C
Mineral Oils associated with, MOAH (Mineral Oil Aromatic Hydrocarbons), (Information based on recipe. The presence of impurities, cannot be ruled out.)	Component of recipe	Component of recipe	Component of recipe	Component of recipe

R Series

Synthetic hydrocarbon refrigeration lubricants

Characteristics	R-100	R-150	R-200	R-300
Mineral Oils associated with, MOSH (Mineral Oil Saturated Hydrocarbons), (Information based on recipe. The presence of impurities, cannot be ruled out.)	Component of recipe	Component of recipe	Component of recipe	Component of recipe
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	36 months	36 months	36 months	36 months

Characteristics	R-400	R-500	R-600
Article number	340565	340520	340521
NSF H1 registration number	162570	139585	139586
Requirements of refrigerator oils, DIN 51503-1, KAA, limited requirements for products with additives	-	-	-
Density, 20°C	approx. 0.841 g/cm³	approx. 0.842 g/cm³	approx. 0.846 g/cm³
Flash point, Cleveland open cup	-	≥ 255 °C	-
Flash point, ASTM D92, Cleveland open cup	≥ 255 °C	-	-
Flash point, DIN EN ISO 2592, Cleveland open cup	-	-	≥ 255 °C
ISO viscosity grade, DIN ISO 3448, ISO VG	150	220	-
Kinematic viscosity, DIN EN ISO 3104 / DIN 53000-1, based on standard / ASTM D445 / ASTM D7042, 100°C	approx. 20.1 mm²/s	approx. 25.6 mm²/s	approx. 40.4 mm²/s
Kinematic viscosity, DIN EN ISO 3104 / DIN 53000-1, based on standard / ASTM D445 / ASTM D7042, 40°C	approx. 158 mm²/s	approx. 220 mm²/s	approx. 405 mm²/s
Viscosity index, ASTM D2270	approx. 142	approx. 148	approx. 150
Pour point, DIN ISO 3016, ASTM D97, ASTM D5950, ASTM D7346	approx. -48 °C	approx. -46 °C	approx. -42 °C
Mineral Oils associated with, MOAH (Mineral Oil Aromatic Hydrocarbons), (Information based on recipe. The presence of impurities, cannot be ruled out.)	Component of recipe	-	-
Mineral Oils associated with, MOSH (Mineral Oil Saturated Hydrocarbons), (Information based on recipe. The presence of impurities, cannot be ruled out.)	Component of recipe	-	-
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	36 months	36 months	36 months

Product information

R Series

Synthetic hydrocarbon refrigeration lubricants

Summit Lubrication

Your expert in specialty lubricants. Since 1982, we have partnered with you to bring you the right solution and advanced lubrication technologies. With over 500 products, from air and gas compressor oils to refrigeration oils, we develop top-of-the-line products tailored to your specific needs. Your success is our success.

Summit Lubrication a brand of Klüber Lubrication NA LP /
9010 County Road 2120, Tyler, TX 75707 /
Phone: +1 800 749 5823 / www.klsummit.com

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 NA LP. Reprints, total or in part, are permitted only prior consultation with Klüber Lubrication NA LP and if source is indicated and voucher copy is forwarded.