

# Klüberalfa MR 3, MR 3-500, MR 3-800, MR 3-800 UV

Universal sliding fluid for seals, guideways and plastic friction points



## Your benefits at a glance

- Reduced noise and optimised friction
- Can be combined with numerous material combinations
- Easy and reliable application

## Your requirements – our solution

Car manufacturers are confronted with the need to prevent creaking noises (NVH requirements), in particular when a new vehicle model is being launched.

The sliding fluids Klüberalfa MR 3 based on PFPE are resistant to evaporation and were specifically developed for NVH requirements and lifetime lubrication. They offer a less expensive alternative to other noise-reducing products such as films or adhesive tapes.

Klüberalfa MR 3 products are highly compatible with most elastomers and plastics. Due to their being visually neutral, they can be used for applications in car interiors as well as in other industrial sectors.

Klüberalfa MR 3 is available in three different viscosities and supplied in a pump spray dispenser that does not release greenhouse gases.

It is easy to use in economically small quantities and does not give off combustible or flammable solvent vapours. The product forms a homogeneous lubricating film.

Klüberalfa MR 3-800 UV contains a fluorescence indicator to facilitate quality inspection.

Klüberalfa MR 3 is compatible with most thermoplastics or thermosetting plastics used, for example, in dashboards, seat and sunroof sliding rails, arm rests, seat adjustment mechanisms, door and sunroof seals.

Perfluorinated polyether oils are generally regarded as neutral towards elastomers and plastics (possible exception: highly fluorinated rubber). Nevertheless we recommend testing compatibility with the material to be used, especially prior to series application.

## Application notes

For optimum lubrication results, we recommend cleaning the friction points with white spirit 180/210 followed by Klüberalfa XZ 3-1 before using Klüberalfa MR 3 for the first time. Then blow the surfaces with clean, dry compressed air or hot air to remove white spirit residues.

For initial lubrication, the friction points must be clean and bright, i.e. free from oil, grease, perspiration and contamination.

For a clear indication of Klüberalfa MR 3-800 UV please use an appropriate UV lamp and avoid stray light.

## Application

Due to its good compatibility, Klüberalfa MR 3 may be used in combination with most materials, e.g. leather, textile or plastic, in car interiors or on the car body.

## 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	Klüberalfa MR 3	Klüberalfa MR 3-500	Klüberalfa MR 3-800	Klüberalfa MR 3-800 UV
Bottle 100 ml	+	+	+	+
Canister 500 ml	+	+	+	-
Canister 10 l	+	-	-	-



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Universal sliding fluid for seals, guideways and plastic friction points

Product data	Klüberalfa MR 3	Klüberalfa MR 3-500	Klüberalfa MR 3-800	Klüberalfa MR 3-800 UV
Article number	090118	090195	090194	090216
Chemical composition, type of oil	PFPE	PFPE	PFPE	PFPE
Chemical composition, solvent	solvent	solvent	solvent	solvent
Upper service temperature	180 °C / 356 °F	200 °C / 392 °F	250 °C / 482 °F	120 °C / 248 °F
Appearance	clear	clear	clear	clear
Density at 20 °C	approx. 1.53 g/cm <sup>3</sup>	approx. 1.55 g/cm <sup>3</sup>	approx. 1.72 g/cm <sup>3</sup>	approx. 1.72 g/cm <sup>3</sup>
Kinematic viscosity, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 40 °C	approx. 95 mm <sup>2</sup> /s	approx. 395 mm <sup>2</sup> /s	approx. 800 mm <sup>2</sup> /s	approx. 800 mm <sup>2</sup> /s
Kinematic viscosity, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 100 °C	approx. 9 mm <sup>2</sup> /s	approx. 38 mm <sup>2</sup> /s	approx. 80 mm <sup>2</sup> /s	approx. 80 mm <sup>2</sup> /s
Pour point, DIN ISO 3016	<= -45 °C	<= -30 °C	<= -15 °C	<= -15 °C
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	24 months	24 months	36 months	12 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.

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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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