

## Keroflux<sup>®</sup> 4990

### Paraffin dispersant for middle distillates

February 2023 | Data Sheet Refinery Additives | Replaced version July 2022

TI/EVO 3109e / Page 1 of 2

® = registered trademark of BASF in many countries.

**Chemical composition** Mixture of polymers and amides in an organic solvent.

#### Properties

**Appearance** Yellow to brownish liquid

#### Physical data

Density at 15 °C	884 – 914 kg/m <sup>3</sup>	DIN 51757 / EN ISO 12185
Viscosity at 20 °C	10 – 20 mm <sup>2</sup> /s	DIN 51562 / EN ISO 3104
Pour point	App. - 18 °C	DIN ISO 3016
Flash point	≥ 61 °C	DIN EN ISO 2719

#### Quality control

The above-listed data represent average values at the time of going to press of this Technical Information. They are intended as a guide to facilitate handling and cannot be regarded as specified data. Specified product data are issued as a separate product specification.

#### Solubility

Keroflux<sup>®</sup> 4990 is soluble in aliphatic and aromatic solvents in all proportions, but insoluble in water and polar organic liquids.

#### Application

When middle distillates are kept below their Cloud Point (CP), n-paraffins tend to crystallize. Due to the higher density of these waxy crystals compared with the density of the liquid phase, the solid n-paraffins precipitate. This results in an increase in the Cloud Point and the CFPP in the paraffin-rich phase. Keroflux<sup>®</sup> 4990 acts as paraffin dispersant by reducing the size of the waxy crystals and by electrostatic effects.

Keroflux<sup>®</sup> 4990 is added to the middle distillates at addition rates of 100 – 500 ppm. The actual injection rate depends on the composition of the middle distillate, which is mainly characterized by the Cloud Point, the boiling range, the type and the amount of paraffins.

Keroflux<sup>®</sup> 4990 has to be used additionally to regular middle distillate flow improvers (MDFI). Keroflux<sup>®</sup> 4990 is injected directly into the stream of middle distillate either undiluted or in the form of a stock solution. A mixing section of adequate length in the pipeline is required.

Lines through which undiluted Keroflux<sup>®</sup> 4990 is pumped should be heated to 30 – 40 °C, and the temperature of the middle distillate to be doped should be about 30 – 35 °C.

<b>Compatibility</b>	Keroflux® 4990 and its dilutions are miscible with other Keroflux grades in all proportions.
<b>Storage and Handling</b>	Keroflux 4990 can be stored at least for one year. The storage temperature should be app. 30 °C.
<b>Packaging</b>	In bulk quantities
<b>Safety</b>	When using this product, the information and advice given in our <b>Safety Data Sheet</b> should be observed. Due attention should also be given to the <b>precautions</b> necessary for handling chemicals.
<b>Note</b>	<p>The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed.</p> <p>February 2023</p>