

Technical Data Sheet

POLYGLYKOL B 11/150 K

Lubricant for hyper compressors

Composition	Polyalkylene glycol (ethylene oxide/propylene oxide random copolymer mono butyl ether) $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2(\text{OCH}_2\text{CH}_2)_n(\text{OCH}_2\text{CHCH}_3)_m$ OH n:m = 1:1
Product properties ¹	
Appearance (20°C)	Clear liquid
Active substance content	Approx. 100%
Molecular weight	Approx. 2500 g/mol
Water content DIN 51777	Approx. <0.5 %
pH value (10% w/w in water) DIN EN 1262	Approx. 6
Contact angle V2A steel (5% in aq. *)	Approx. 31.6 °
Surface tension (5% in aq. **)	Approx. 43.0 mN/m
Density (20°C) DIN 51757	Approx. 1.05 g/cm ³
Viscosity (40°C) DIN 51562	Approx. 220 mm ² /s
Viscosity (100°C) DIN 51562	Approx. 42 mm ² /s
Viscosity index ASTM D2270	Approx. 246
Cloud point (1% in aq.)	Approx. 50°C
Cloud point (5g in 25g 25% BDG)	Approx. 48°C
Pour point ISO 3016	Approx. -45°C
Flash point DIN 51794	Approx. 250°C
Ignition temperature DIN 51794	Approx. 375°C
Specific heat capacity (0-100°C)	Approx. 2.0 kJ/kg*K
Thermal conductivity (0-100°C)	Approx. 0.19 W/(m*K)
Sodium / potassium content	Approx. <10 ppm
Four ball test DIN 51350/3B (60min. / 300N)	Approx. 0.48 mm

Profile

¹ These characteristics are for guidance only and not to be taken as product specifications. The tolerances are given in the product specification sheet. For further product properties, specifications, safety and ecological data, please refer to the MSDS.

*) Contact angle of water on V2A steel: 64°

**) Surface tension of water: 71.6 mN/m

Application

Polyglykol B11/150 K is a high-performance lubricant especially designed for the use in high pressure processes for production of low-density polyethylene (LDPE).

The polyalkylene glycol base chosen for Polyglykol B 11/150 K has an excellent intrinsic lubricity and a high viscosity index, making the addition of external additives unnecessary. Polyglykol B 11/150 K also shows a favorable pressure-viscosity relationship especially in comparison to mineral and white oils. A high thermal conductivity supports dissipation of heat.

Polyglykol B 11/150 K complies with the legal requirements regarding food packaging in the USA (section 21 CFR 178.3570). It is NSF-listed as lubricant with incidental food contact (H1) for use in and around food processing (NSF registration No. 146073).

Polyglykol B11/150 K can also be used as a water soluble, lubricating component for fully synthetic metal working fluids.

Sustainability

Polyglykol B 11/150 K is readily biodegradable. It is included in the LuSC-list (Lubricant Substance Classification list) and meets the EU Ecolabel criteria for lubricants (Commission decision 2018 / 1702 / EU).

Safety

Please see Material Safety Data Sheet before handling the material.

Storage behaviour

When stored in a cold, dry place in a closed container Polyglykol B 11/150 K can be kept for at least two years.

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