CLARIANT

Technical Data Sheet
POLYGLYKOL P 41/300

CLARIANT INTERNATIONAL LTD

Rothausstrasse 61
4132 Muttenz
Switzerland

BUSINESS UNIT INDUSTRIAL & CONSUMER SPECIALTIES

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Base oil component for industrial applications

Composition	random, branched ethylene oxide/ propylene oxide copolymer H(OCH2CH2)n(OCH2CHCH3) m OH n:m = 4:1
Product properties [1]	
Appearance (20°C)	Clear viscous liquid
Color index [APHA] EN 1557	Max. 100
Refractive index (20°C) DIN 51432	Approx. 1.465 -1.469
Molecular weight	Approx. 5000 g/mol
Water content DIN 51777	Max. 0.5 %
pH value (10% w/w in water) DIN EN 1262	Approx. 7.0 – 9.5
Contact angle V2A steel (5% in aq.*)	Approx. 40.5 °
Surface tension (5% in aq. **)	Approx. 38.1 mN/m
Density (20°C) DIN 51757	Approx. 1.092 – 1.096 g/cm³
Viscosity (40°C) DIN 51562	Approx. 450 mm²/s
Viscosity (100°C) DIN 51562	Approx. 75 mm²/s
Viscosity index ASTM D2270	Approx. 231
Cloud point (1% in aq.)	Approx. 94°C
Cloud point (5g in 25g 25% BDG)	Approx. 81°C
Pour point ISO 3016	Approx. -10°C
Flash point DIN 51376	Approx. 270°C
Ignition temperature DIN 51794	Approx. 310°C
Sodium / potassium content	Max. 40 ppm
Four ball test DIN 51350/3B (60min. / 300N)	Approx. 0.25 mm
Seizure / welding load	Approx. 1500 / 1800 N
FZG load stage DIN 51354	Approx. >12

[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

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Profile

Product properties

Polyglykol P 41/300 is a clear, neutral viscous liquid at room temperature. Polyglykol P 41/300 is soluble in water and polar organic solvents like acetone or methanol at room temperature. It is insoluble in pure hydrocarbons. Polyglykol P 41/300 displays typical chemical reactions of alcohols/polyols. The solidification point of Polyglykol P 41/300 is –10°C.

Application

Based on their physical and chemical characteristics P 41-type polyglycols are used for a wide variety of applications.

Fields of industrial application:

- Reactive polyol/polyether component in polyester or polyurethane resins as crosslinker
- Component of auxiliaries for leather and textile processing
- Lubricant and mold release agent for rubber and elastomer processing
- Component of lubricant formulations
- Water soluble, lubricating, and thickening component of metalworking fluids, e.g. fully synthetics
- Humectant for paper, wood, and cellulose films
- Solvent and humectant for dyes and inks
- Modifier for production of regenerated viscose
- Humectant and plasticizer for adhesives
- Heat transfer medium

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 P 41/300 can be kept for at least two years.

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