Technical Information

March 2014
Supersedes issue dated March 2013

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Last change WF-No. 3735

Pluriol® P types

® = Registered trademark of BASF

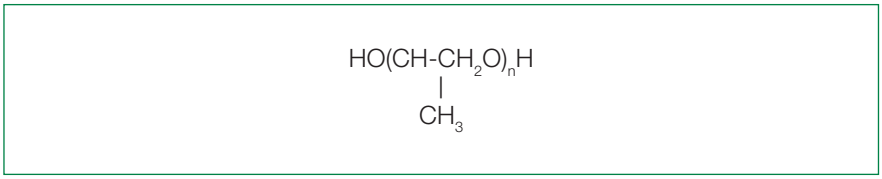
Pluriol® P 400
Pluriol® P 600
Pluriol® P 900
Pluriol® P 2000
Pluriol® P 4000

Polypropylene glycols with a low ash content for the chemical and allied industries and for petroleum products

BASF
The Chemical Company

Chemical nature

Polypropylene glycols corresponding to the general formula



The properties of the individual products in the range are determined by the length of the polypropylene chain *n* and, consequently, by their average molar mass.

PRD-Nos.

30075836	Pluriol® P 400
30044089	Pluriol® P 600
30044090	Pluriol® P 900
30044076	Pluriol® P 2000
30044088	Pluriol® P 4000

Properties

Pluriol®	Method	Unit	P 400	P 600	P 900	P 2000	P 4000
Physical form			liquid	liquid	liquid	liquid	liquid
Appearance at 23 °C			colourless to yellowish	colourless to yellowish	colourless to yellowish	colourless to yellowish	colourless to yellowish
Average molecular weight	cal. OH value	g/mol	approx. 430	approx. 600	approx. 900	approx. 2000	approx. 4000
Concentration		%	approx. 100	approx. 100	approx. 100	approx. 100	approx. 100
Density at 23 °C	DIN 51757	g/cm³	approx. 1.0	approx. 1.0	approx. 1.0	approx. 1.0	approx. 1.0
Setting point	DIN 51583	°C	<-45	approx. -43	approx. -38	approx. -35	approx. -35
Kinematic viscosity	DIN 51562						
at 20.0 °C		mm²/s	approx. 95	approx. 130	approx. 180	approx. 440	approx. 1050
at 40.0 °C		mm²/s	approx. 20	approx. 40	approx. 60	approx. 150	approx. 360
at 98.9 °C		mm²/s	approx. 5	approx. 7	approx. 9	approx. 23	approx. 190
Residual ash at 900 °C	DIN 51575	%	<0.005	<0.005	<0.005	<0.005	<0.01
Flash point	ISO 2592	°C	approx. 205	approx. 216	approx. 220	approx. 220	approx. 220

Solubility and miscibility

The Pluriol® P types are clear liquids. They are miscible in all proportions with organic solvents such as ethanol, toluene and trichloroethylene.

Pluriol® P 900, Pluriol® P 2000 and Pluriol® P 4000 are miscible in all proportions with most types of petroleum oil. Pluriol® P 600 is soluble in spindle oil up to a concentation of 20% and homogeneously miscible in up to 20% spindle oil. Mixtures in ratios between these limits separate out.

Pluriol® P 400 and P 600 is miscible in all proportions with water. Pluriol® P 900 is approx. 2% soluble in water, but Pluriol® P 2000 and Pluriol® P 4000 are practically insoluble.

Storage

a) The Pluriol® P types should be stored indoors in their original packaging, which should be kept tightly sealed. Storerooms must not be overheated.

b) The Pluriol® P types are all hygroscopic to some extent. We would recommend that drums are tightly resealed each time they are opened.

c) The Pluriol® P types must be blanketed with nitrogen if they are stored in heated tanks (at approx. 50 °C) to prevent them from coming into contact with air. Constant, gentle stirring helps to prevent them being discoloured as a result of prolonged contact with electrical elements or external heating coils.

Materials

The following materials can be used for tanks and drums:

a) AISI 316 stainless steel (X6CrNiTi1810)
b) AISI 321 stainless steel (X6CrNiMoTi17122)
c) Iron lined with a phenolic resin

Shelf life

Provided they are stored properly and drums are kept tightly sealed, the Pluriol® P types have a shelf life of at least two years in their original packaging.

Safety

We know of no ill effects that could have resulted from using the Pluriol® P types for the purposes for which they are intended and from processing them in accordance with current practice.

According to the experience that we have gained over many years and other information at our disposal, the Pluriol® P types do not exert any harmful effects on health, provided they are used properly, due attention is given to the precautions necessary for handling chemicals, and the information and advice given in the Safety Data Sheets are observed.

Handling

All contact with the eyes and prolonged contact with the skin must be avoided. Safety glasses should be worn when handling these products in their undiluted form.

Further details are given in our Safety Data Sheets.

Labelling

Please refer to latest Safety Data Sheet for detailed information on product safety.

Note

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