

# SYNATIVE ES TMP 05/68

## Composition

Trimethylolpropane-complex ester

## Technical Data

Item	Value	Method / Remarks
<b>Appearance:</b>	Clear, yellowish liquid	
<b>Cloud Point:</b>	max. -20 °C	DIN EN 23015
<b>Pour Point:</b>	max. -20 °C	DIN ISO 3016
<b>Acid Value:</b>	max. 2	DIN 53402 DGF C-V 2 (81)
<b>Iodine Value:</b>	72 - 92	DGF C-V 11 b
<b>Hydroxyl Value:</b>	max. 15	DIN 53240 DGF C-V 17 a (53)
<b>Saponification Value:</b>	177 -189	DIN 53401 DGF C - V 3 (53)
<b>Density:</b> 15 °C	0,918 - 0,925 g/cm <sup>3</sup>	DIN 53479
<b>Viscosity:</b> 40 °C	64 - 78 mm <sup>2</sup> /s	DIN 51562
<b>Color:</b> Lovibond 1" gelb/yellow rot/red	max. 10,0 max. 1,5	DGF C-IV 4 b (84)

## Quality Control Data

(These data are used for quality release and are certified for each batch.)

Item	Value	Method / Remarks
<b>Acid Value:</b>	max. 2	DIN 53402 DGF C-V 2 (81)
<b>Iodine Value:</b>	72 - 92	DGF C-V 11 b
<b>Hydroxyl Value:</b>	max. 15	DIN 53240 DGF C-V 17 a (53)
<b>Saponification Value:</b>	177 -189	DIN 53401 DGF C - V 3 (53)
<b>Viscosity:</b> 40 °C	64 - 78 mm <sup>2</sup> /s	DIN 51562
<b>Color:</b> Lovibond 1" gelb/yellow rot/red	max. 10,0 max. 1,5	DGF C-IV 4 b (84)

## **Additional Specifications**

(Guaranteed specification values which are not determined on a regular basis.)

<b>Item</b>	<b>Value</b>	<b>Method / Remark</b>
<b>Cloud Point:</b>	max. -20 °C	DIN EN 23015
<b>Pour Point:</b>	max. -20 °C	DIN ISO 3016
<b>Density:</b> 15 °C	0,918 - 0,925 g/cm <sup>3</sup>	DIN 53479

## **Properties & Use**

Basestock for lubricants and biodegradable hydraulic fluids, ISO VG 68

## **Additional Technical Data**

<b>Kinematic viscosity</b> (DIN 51562 part 1)		
at 20°C	171	mm <sup>2</sup> /s
at 100°C	13	mm <sup>2</sup> /s
at -20 °C	2513	mm <sup>2</sup> /s
<b>Viscosity index</b> (DIN ISO 2909)	184	
<b>Flash point</b> (DIN ISO 2592)	min. 290	°C
<b>Thermogravimetric Analysis</b> (Cognis-Method TA-TGA-SOP 6) (Loss in mass-% when continuously increasing the temperature at a rate of 20 °C/min)		
200°C	0	%
250°C	0,5	%
300°C	1	%

### **Storage stability**

**SYNATIVE ES TMP 05/68** is soluble in paraffinic and naphthenic mineral oils.

The product can be stored for at least 2 years at ambient storage conditions and temperature without any deterioration.

Information provided in this technical literature is believed to be accurate. However, Cognis assumes no liability and makes no warranty or representation that the information is correct or complete. Final determination of suitability of any material and issues of patent infringement are the sole responsibility of the user who alone knows the conditions of intended use.

**COGNIS DEUTSCHLAND GmbH & CO KG**

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