

# Esterex™ TM111

## Synthetic Fluid

### Product Description

Esterex™ Trimellitate Esters are API category Group V fluids. These esters have excellent low-temperature properties, good lubricating properties and low volatilities. Esterex™ Trimellitate Esters can be used as sole basestocks or blendstocks with other synthetic fluids in many engine and industrial lubricant applications.

### General

Availability <sup>1</sup>	▪ Asia Pacific	▪ Latin America	▪ North America
Revision Date	▪ 05/27/2008		

Basics	Typical Value (English)	Typical Value (SI)	Test Based On
Specific Gravity (68°F (20°C))	0.978	0.978	BRCP 4843
Appearance	Bright & Clear	Bright & Clear	Visual
Color	< 0.5	< 0.5	ASTM D1500
Kinematic Viscosity			ASTM D445
212°F (100°C)	11.9 cSt	11.9 mm <sup>2</sup> /s	
104°F (40°C)	124 cSt	124 mm <sup>2</sup> /s	
Viscosity Index	81	81	ASTM D2270
Pour Point	-27 °F	-33 °C	ASTM D5950/D97
Flash Point, COC <sup>2</sup>	525 °F	274 °C	ASTM D92
Noack Volatility <sup>2</sup>	1.4 wt%	1.4 wt%	ASTM D5800/DIN 51581
Water	< 1000 ppm	< 1000 ppm	ASTM D6304
Refractive Index <sup>2</sup> (77°F (25°C))	1.4845	1.4845	ASTM D1218
Total Acid Number	< 0.16 mg KOH/g	< 0.16 mg KOH/g	ASTM D974 (mod)
Hydrolytic Stability, TAN Change <sup>2</sup>	0.01 mg KOH/g	0.01 mg KOH/g	ASTM D2619

Thermal	Typical Value (English)	Typical Value (SI)	Test Based On
Density Correction Factor <sup>2</sup>	7.33E-4 (g/cm <sup>3</sup> )/°C	7.33E-4 (g/cm <sup>3</sup> )/°C	ASTM D1250
Fire Point, COC <sup>2</sup>	576 °F	302 °C	ASTM D92
Flash Point, PMCC <sup>2</sup>	464 °F	240 °C	ASTM D93
Evaporation Loss <sup>2</sup> (401°F (205°C), 6.5 hr)	1.0 wt%	1.0 wt%	ASTM D972 (mod)

Performance	Typical Value (English)	Typical Value (SI)	Test Based On
RPVOT			ASTM D2272
Neat <sup>2</sup>	310 min	310 min	
With AO <sup>3</sup>	> 1210 min	> 1210 min	
Biodegradation <sup>2</sup>	< 1.0 %	< 1.0 %	OECD 301F

Solubility	Typical Value (English)	Typical Value (SI)	Test Based On
Aniline Point <sup>2</sup>	16.5 °F	-8.6 °C	ASTM D611
Kauri-Butanol Value <sup>2</sup>	35.0	35.0	ASTM D1133

Elastomer Compatibility, Fluoroelastomer	Typical Value (English)	Typical Value (SI)	Test Based On
Volume Change <sup>2</sup>	2.3 %	2.3 %	ASTM D471
Hardness Change <sup>2</sup>	-3	-3	ASTM D471
Tensile Strength Change <sup>2</sup>	-20.7 %	-20.7 %	ASTM D471
Elongation Change <sup>2</sup>	9.2 %	9.2 %	ASTM D471

Elastomer Compatibility, Nitrile	Typical Value (English)	Typical Value (SI)	Test Based On
Volume Change <sup>2</sup>	14.5 %	14.5 %	ASTM D471
Hardness Change <sup>2</sup>	-10	-10	ASTM D471
Tensile Strength Change <sup>2</sup>	-0.5 %	-0.5 %	ASTM D471
Elongation Change <sup>2</sup>	-18.8 %	-18.8 %	ASTM D471

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Elastomer Compatibility, Polyacrylate	Typical Value (English)	Typical Value (SI)	Test Based On
Volume Change <sup>2</sup>	18.1 %	18.1 %	ASTM D471
Hardness Change <sup>2</sup>	-16	-16	ASTM D471
Tensile Strength Change <sup>2</sup>	-24.3 %	-24.3 %	ASTM D471
Elongation Change <sup>2</sup>	15.1 %	15.1 %	ASTM D471

#### Additional Information

Product contains 0.2 to 0.3 wt% phenolic antioxidant

#### Legal Statement

For detailed Product Stewardship information, please contact Customer Service.

#### Notes

Typical properties: these are not to be construed as specifications.

<sup>1</sup> Product may not be available in one or more countries in the identified Availability regions. Please contact your Sales Representative for complete Country Availability.

<sup>2</sup> Single sample or two sample average determinations

<sup>3</sup> Single sample or two sample average determinations 1 wt.% diphenylamines and phenyl naphthylamine antioxidant (AO) added

For additional technical, sales and order assistance: [www.exxonmobilchemical.com/ContactUs](http://www.exxonmobilchemical.com/ContactUs)

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