

Synesstic™ 5

Synthetic Fluid

Product Description

Synesstic™ Alkylated Naphthalene (AN) represent a unique class of API Group V category fluids. Synesstic™ AN products offer improved hydrolytic, thermal and oxidative stability versus other Group V fluids. Synesstic™ AN products are particularly suited for use as a blendstocks in synthetic lubricant applications that require high stability under extreme operating conditions.

General

Availability ¹	- Africa & Middle East - Asia Pacific	- Europe - Latin America	North America
Revision Date	10/01/2019		

Basics	Typical Value (English)	Typical Value (SI)	Test Based On
Specific Gravity (60.1°F (15.6°C))	0.908	0.908	ASTM D4052
Appearance	Bright & Clear	Bright & Clear	Visual
Color	< 1.5	< 1.5	ASTM D1500
Kinematic Viscosity			ASTM D445
212°F (100°C)	4.7 cSt	4.7 mm ² /s	
104°F (40°C)	29.0 cSt	29.0 mm ² /s	
-40°F (-40°C) ²	43600 cSt	43600 mm ² /s	
Viscosity Index	74	74	ASTM D2270
Pour Point	-38 °F	-39 °C	ASTM D5949M/ D5950/D97
Flash Point, COC	432 °F	222 °C	ASTM D92
Noack Volatility ²	12.7 wt%	12.7 wt%	ASTM D5800/DIN 51581
Bromine Number	< 1.3 g Br/100 g	< 1.3 g Br/100 g	ASTM D1159 (mod)
Water	< 50 ppm	< 50 ppm	ASTM E1064
Refractive Index ² (77°F (25°C))	1.5220	1.5220	ASTM D1218
Total Acid Number	< 0.05 mg KOH/g	< 0.05 mg KOH/g	ASTM D974 (mod)
Hydrolytic Stability, TAN Change ²	0.02 mg KOH/g	0.02 mg KOH/g	ASTM D2619

Flow	Typical Value (English)	Typical Value (SI)	Test Based On
Brookfield Viscosity ²			ASTM D2983
-15°F (-26°C)	3950 cP	3950 cP	
-40°F (-40°C)	29000 cP	29000 cP	

Thermal	Typical Value (English)	Typical Value (SI)	Test Based On
Density Correction Factor ²	5.27E-4 (g/cm ³)/°C	5.27E-4 (g/cm ³)/°C	ASTM D1250
Fire Point, COC ²	493 °F	256 °C	ASTM D92
Flash Point, PMCC ²	378 °F	192 °C	ASTM D93
Evaporation Loss ² (401°F (205°C), 6.5 hr)	15.6 wt%	15.6 wt%	ASTM D972 (mod)

Performance	Typical Value (English)	Typical Value (SI)	Test Based On
RPVOT			ASTM D2272
Neat ²	196 min	196 min	
With AO ³	> 1400 min	> 1400 min	
Dielectric Strength ²	49.0 kV	49.0 kV	ASTM D877

Solubility	Typical Value (English)	Typical Value (SI)	Test Based On
Aniline Point ²	89.6 °F	32.0 °C	ASTM D611
Kauri-Butanol Value ²	31.0	31.0	ASTM D1133

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Elastomer Compatibility, Fluoroelastomer	Typical Value (English)	Typical Value (SI)	Test Based On
Volume Change ²	0.8 %	0.8 %	ASTM D471
Hardness Change ²	0	0	ASTM D471
Tensile Strength Change ²	1.9 %	1.9 %	ASTM D471
Elongation Change ²	-6.0 %	-6.0 %	ASTM D471

Elastomer Compatibility, Nitrile	Typical Value (English)	Typical Value (SI)	Test Based On
Volume Change ²	14.1 %	14.1 %	ASTM D471
Hardness Change ²	-9	-9	ASTM D471
Tensile Strength Change ²	-27.8 %	-27.8 %	ASTM D471
Elongation Change ²	-25.6 %	-25.6 %	ASTM D471

Elastomer Compatibility, Polyacrylate	Typical Value (English)	Typical Value (SI)	Test Based On
Volume Change ²	17.9 %	17.9 %	ASTM D471
Hardness Change ²	-11	-11	ASTM D471
Tensile Strength Change ²	-6.6 %	-6.6 %	ASTM D471
Elongation Change ²	-27.2 %	-27.2 %	ASTM D471

Additional Information

NSF H1, HX-1 Registered

Legal Statement

For detailed Product Stewardship information, please contact Customer Service.

Notes

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

¹ Product may not be available in one or more countries in the identified Availability regions. Please contact your Sales Representative for complete Country Availability.² Single sample or two sample average determinations³ Single sample or two sample average determinations 1 wt.% diphenylamines and phenyl naphthylamine antioxidant (AO) addedFor additional technical, sales and order assistance: www.exxonmobilchemical.com/ContactUs

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