

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 | <ul style="list-style-type: none"> ▪ Africa & Middle East ▪ Asia Pacific | <ul style="list-style-type: none"> ▪ Europe ▪ Latin America | <ul style="list-style-type: none"> ▪ 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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