

# **AMALIE Elixir Full Synthetic Passenger Car Engine Oils**

#### (05/01/20 edition)

**AMALIE Elixir Full Synthetic Motor Oils** are premium fully synthetic motor oils that are blended with high-quality synthetic base stocks, a shear stable viscosity modifier, and the latest additive technology to provide the ultimate protection & performance for a wide range of vehicle demands. Specifically formulated for the rigorous environment of gas-direct engine (GDI) and turbo gas-direct engine (TGDI) designs as well as providing increased protection for carbureted or normally fuel injected engines. They contain additive technology designed to prevent low-speed pre-ignition (LSPI). LSPI can lead to pre-mature engine failure and is a major concern of engine manufacturers. AMALIE Elixir Full Synthetic Motor Oils are formulated to exceed the latest API SP engine oil categories. The SAE grades 0W-20, 0W-30, 5W-20, and 5W-30 exceed the latest requirements of ILSAC GF-6A. While the SAE 0W-16 viscosity grade exceeds the requirements for ILSAC GF-6B and is not backward compatible with previous ILSAC categories. The AMALIE Elixir Full Synthetic Motor Oils deliver superior performance for wear control, deposit control, oxidative stability, piston cleanliness, and timing chain wear over previous API and ILSAC oil categories as well as conventional and synthetic blended oils.

\*Always refer to your vehicles operating manual to select the correct grade oil for your engine.

#### **Benefits:**

- > Outstanding Thermal and Oxidation Stability.
- > Excellent Sludge and Varnish Protection.
- Formulated to Prevent LSPI.
- > Volatility: Lowers Oil Vaporization and Consumption at Extreme Conditions.
- > Increased Wear Protection Over Previous Oil Categories.

### **Typical Inspection Data**

| Elixir Full-<br>Synthetic | Viscosity cSt<br>@ 100°C | Viscosity cSt<br>@ 40°C | Viscosity Index | Cold Crank<br>Viscosity, cP | Flash Point °C<br>(°F) | Pour Point °C<br>(°F) |
|---------------------------|--------------------------|-------------------------|-----------------|-----------------------------|------------------------|-----------------------|
| 0W-16                     | 7.3                      | 37.15                   | 165             | 5,350 @ (-35°C)             | 212                    | -45                   |
| 0W-20                     | 8.5                      | 45                      | 160             | 5,850 @ (-35°C)             | 210                    | -45                   |
| 0W-30                     | 10.5                     | 54.58                   | 185             | 5,675 @ (-35°C)             | 204                    | -45                   |
| 0W-40                     | 14.5                     | 83.5                    | 185             | 3,790 @ (-35°C)             | 215                    | -45                   |
| 5W-20                     | 8.5                      | 40                      | 150             | 5,500 @ (-30°C)             | 200                    | -42                   |
| 5W-30                     | 10.8                     | 62                      | 165             | 5,400 @ (-30°C)             | 210                    | -42                   |
| 5W-50                     | 17.5                     | 109                     | 175             | 6,000 @ (-30°C)             | 224                    | -36                   |
| 15W-50                    | 18                       | 126.4                   | 154             | 4,000 @ (-20°C)             | 250                    | -33                   |

### See Application Chart on Page 2.

### Health and Safety

Safety Data Sheets (SDS) are available from your sales representative or at AMALIE.com.



## AMALIE Elixir Full Synthetic Engine Oils Application Chart

| SPECIFICATIONS                             | Elixir 0W-16 | Elixir 0W-20 | Elixir 0W-30 | Elixir 0W-40 | Elixir 5W-20 | Elixir 5W-30 | Elixir 5W-50 | Elixir 15W-50 |
|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
| API:                                       |              |              |              |              |              |              |              |               |
| SP, SN / SN Plus, SN, SM                   | $\checkmark$ |              |              |              |              |              |              |               |
| CF   | -            | *            | *            | *            | *            | *            | *            | *             |
| ILSAC:                                     |              |              |              |              |              |              |              |               |
| GF-6A, GF-5, GF-4, GF-3                    | -            | $\checkmark$ | $\checkmark$ | -            | $\checkmark$ |              | -            | -             |
| GF-6B                                      | V            | -            | -            | -            | -            | -            | -            | -             |
| ACEA: See Note Below                       |              |              |              |              |              |              |              |               |
|  | -            | C5           | C2           | A3/B4        | C5           | C3           | -            | -             |
| Ford:                                      |              |              |              |              |              |              |              |               |
| M2C 960-A (M2C 945)                        | -            | -            | -            |              | V            | -            | -            | -             |
| M2C 961-A (M2C 945)                        | -            | -            |              |              | -            | -<br>√       |              | -             |
| M2C 962-A (M2C 940)                        | -            | -<br>-<br>-  |              |              | -            | -            |              | -             |
| M2C 963-A (M2C 947)<br>M2C 963-A (M2C 953) |              | -            | -<br>V       |              |              |              |              |               |
| WZC 903-A (WZC 933)                        | -            | _            | v            | -            | -            | -            |              | -             |
| DaimlerChrysler:                           |              |              |              |              |              |              |              |               |
| MS 6395K                                   | -            | -            |              | -            |              |              | -            | -             |
| Honda HTO-06                               | -            | -            | -            | -            | -            |              | -            | -             |
| General Motors:                            |              |              |              |              |              |              |              |               |
| GM dexos1 <sup>®</sup> Gen. 2              | -            |              | -            | -            |              |              | -            | -             |
| GM 4718M                                   | -            |              |              |              |              |              |              |               |
| GM 6094M                                   | -            | -            | V            | -            | V            | V            | -            | -             |
| Toyota                                     | V            | V            | V            |              | V            | V            | -            | -             |
| Hyundai                                    | -            |              |              |              |              |              | -            | -             |
| Kia  | -            |              |              |              | $\checkmark$ |              | -            | -             |
| Nissan                                     | V            |              |              |              |              |              | -            | -             |
| Honda                                      |              | V            | V            | V            | V            | V            | -            | -             |
| CID AA-52039                               | -            |              |              |              |              |              |              | V             |
| Mil-L-2104-B                               | -            | $\checkmark$ | $\checkmark$ |              | $\checkmark$ |              |              |               |
| Mil-L-46152                                | -            | V            | V            |              | $\checkmark$ |              |              |               |

 $\sqrt{1}$  - Exceeds Performance Requirements

\* - Suitable for use

ACEA sequences and some OEM specifications are viscosity specific. Please consult your AMALIE representative. Updated May 2020.