



FUEL, DIESEL, INITIAL FILL, ARGENTINA

WSS-M4C117-A

## 1. SCOPE

The material defined by this specification is a well-refined middle distillate petroleum product containing normal commercial additives.

## 2. APPLICATION

This specification was released originally for material used as initial fill fuel for diesel engines in passenger cars and trucks.

This material is not specifically intended for use in certification testing. It may be used for engine hot test, mileage accumulation or general fueling.

## 3. REQUIREMENTS

This material must be produced using current refinery practices for commercial diesel and in addition to the requirements of this specification, must also meet all pertinent local requirements including climatic grades.

### 3.0 STANDARD REQUIREMENTS FOR PRODUCTION MATERIAL

Material suppliers and part producers must conform to the Company's Standard Requirements For Production Materials (WSS-M99P1111-A).

### 3.2 CETANE RATING

3.2.1 Cetane Number (ISO 5165 / ASTM D 613) 51 min

3.2.2 Cetane Index (ISO 4264 / ASTM D 4737) 48 min

3.3 SULPHUR 50 mg/kg max  
(ASTM D 1552 / D 2622 / D 4294 / D 5453)

| Date       | Action    | Revisions                                                                                                                   |
|------------|-----------|-----------------------------------------------------------------------------------------------------------------------------|
| 2010 01 06 | Revised   | Revised 3.3, 3.7, 3.12, 3.14, 3.15, 3.16.1, 3.16.2, Inserted 3.4.3, 3.4.4, 3.4.5 & 3.20; Deleted 3.13 & page 4 L. Benvenuti |
| 2004 06 21 | Revised   | Para 3.0 inserted; para 3.1, 3.20 & 4 deleted                                                                               |
| 1996 03 29 | Activated | NE01-E-10127076-166                                                                                                         |



**3.4 COMPOSITION, max**

|       |                                                           |             |
|-------|-----------------------------------------------------------|-------------|
| 3.4.1 | Water content<br>(ISO 12937/ASTM D 1744)                  | 200 mg/kg   |
| 3.4.2 | Hydrocarbon Types<br>(ISO 3837/ASTM D 1319)               | Report      |
| 3.4.3 | Total contamination<br>(EN 12662)                         | 24 mg/kg    |
| 3.4.4 | Polycyclic Aromatic Hydrocarbons<br>(IP 391:1995/EN12916) | 11% mass    |
| 3.4.5 | FAME (Biodiesel)                                          | Not allowed |

**3.5 DISTILLATION RANGE, max**  
(ISO 3405/ASTM D 86)

|                       |        |
|-----------------------|--------|
| Initial boiling point | Report |
| 10% vol recovery at,  | Report |
| 50% vol recovery at,  | 300    |
| 95% vol recovery at,  | 365    |
| Final boiling point   | Report |

**3.6 DENSITY**

(ISO 3675/ASTM D 1298, 15.0 °C)

0.820 - 0.860 kg/L

**3.7 OXIDATION STABILITY, total insolubles**  
(ISO 12205/ASTM D 2274)

2.5 mg/100 mL max

**3.8 CALORIFIC VALUE, gross**  
(ASTM D 240)

Report

**3.9 CORROSION**

|       |                                                                              |       |
|-------|------------------------------------------------------------------------------|-------|
| 3.9.1 | Copper Tarnish, max<br>(ISO 2160/ASTM D 130, 3 h at 100 +/- 1 °C)            | 1 b   |
| 3.9.2 | Rust Prevention, max<br>(ISO DP 7120/ASTM D 665, Procedure B,<br>30 minutes) | Ligth |

**3.10 FLASHPOINT**  
(ISO 2719/ASTM D 93)

48 °C min

**3.11 KINEMATIC VISCOSITY**  
(ISO 3104/ASTM D 445, 40 °C)2.00 - 4.50 mm<sup>2</sup>/s**3.12 LUBRICITY at 60°C**  
(ISO 12156-1/ASTM D6079 (HFRR))

400 µm max