



FUEL, E24, 95 RON, UNLEADED, INITIAL FILL, ARGENTINA

WSS-M4C118-A

## 1. SCOPE

The material defined by this specification is a well-refined gasoline which contains 24% of ethanol and normal commercial additives.

## 2. APPLICATION

This specification was released originally for material used as initial fill fuel for vehicles designed to operate on gasoline in Argentina. Additives are present to protect the fuel system.

This material is not specifically intended for use in certification testing, mileage accumulation or general fueling.

## 3. REQUIREMENTS

This material must be produced using current refinery practices for market place fuels and must meet all pertinent legal gasoline requirements in Argentina.

### 3.0 STANDARD REQUIREMENTS FOR PRODUCTION MATERIALS

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

### 3.2 OCTANE NUMBERS

3.2.1 Motor 83.6 min  
(ISO 5163 / ASTM D 2700)

3.2.2 Research 95.0 min  
(ISO 5164 / ASTM D 2699)

3.3 TOTAL SULFUR 350 mg/kg max  
(ISSO 14596 / 8754 / ASTM D 5453)

### 3.4 METAL CONTENT

3.4.1 Lead 0.0030 g/L max  
(ASTM D 3237)

3.4.2 Phosphorus 0.0010 g/L max  
(ASTM D 3231)

3.4.3 Manganese 0.0010 g/L max  
(ASTM D 3831)

| Date       | Action    | Revisions                                                                                                                                             |
|------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2010 01 06 | Revised   | Revised: 3.2.1, 3.3, 3.4.1, 3.5.1, 3.5.4, 3.7, 5.2; Deleted: 3.5.2, 3.8; Inserted: 3.5.5, 3.5.6, 3.6, 3.7, 3.9, 3.10.1, 3.15, 3.16, 3.17 L. Benvenuti |
| 2006 03 17 | Revised   | Inserted 3.0; Deleted 3.1, 3.13 & 4                                                                                                                   |
| 1996 03 29 | Activated | NE01-E-10127076-166                                                                                                                                   |



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**3.5 COMPOSITION**

|       |                                                                   |                |
|-------|-------------------------------------------------------------------|----------------|
| 3.5.1 | Hydrocarbons, max<br>(ASTM D 1319 / DIN 51 791 / NBR 14932)       | % volume       |
|       | Aromatics                                                         | 20             |
|       | Olefins                                                           | Report         |
|       | Saturates                                                         | Report         |
| 3.5.3 | Water and Sediment<br>(ASTM D 2709)                               | 0.01% mass max |
| 3.5.4 | Gum Content, max<br>(ISO 6246 / ASTM D 381)                       |                |
|       | Washed                                                            | 4 mg/100 mL    |
|       | Unwashed                                                          | Report         |
| 3.5.5 | Ethanol Content (anhydrous)<br>(ASTM D 5501 / D 4815 / NBR 13992) | 24 – 25%       |
| 3.5.6 | Benzene<br>(ASTM D 3606 / EN 12177 / EN 238)                      | 1.0%vol max    |

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

|                       |               |
|-----------------------|---------------|
| Volume Evaporated     | Temperature   |
| Initial boiling point | Report        |
| 10%                   | 65°C          |
| 50%                   | 80°C          |
| 90%                   | 145°C - 190°C |
| Final boiling point   | 220°C         |
| Residue, max          | 2% volume     |

**3.7 VAPOR PRESSURE**

|       |                                                                                      |
|-------|--------------------------------------------------------------------------------------|
| 3.7.1 | Seasonal Geographical Volatility<br>Shall meet the local appropriate specifications. |
|-------|--------------------------------------------------------------------------------------|

|                                                                |             |
|----------------------------------------------------------------|-------------|
| <b>3.9 OXIDATION STABILITY, MIN</b><br>(ISO 7536 / ASTM D 525) | 960 minutes |
|----------------------------------------------------------------|-------------|