

# Fanavaran Petrochemical Co.

## Methanol

| #  | PROPERTY                         | Units | Test Method   | Value   |
|----|----------------------------------|-------|---------------|---|
| 1  | Purity                           | WT%   | ASTM E - 346  | 99.85 min                                       |
| 2  | Water                            | WT%   | ASTM E - 203  | 0.1 max   |
| 3  | Ethanol                          | WT%   | ASTM E - 346  | 0.005 max                                       |
| 4  | SP.GR@20/20                      |       | ASTM D - 4052 | 0.791 - 0.793                                   |
| 5  | Acetone                          | WT%   | ASTM E - 346  | 0.005 max                                       |
| 6  | Permanganate Time@15 C.minutes   |       | ASTM D - 1363 | Minimum 60                                      |
| 7  | Distillation Range               |       | ASTM D - 1078 | C or Max 1.0<br>Include 64.6<br>C = 0.1         |
| 8  | Acidity (as acetic acid)         | WT%   | ASTM D - 1613 | 0.003 max                                       |
| 9  | Total Iron                       | ppm   | ASTM D - 1068 | 0.1 max   |
| 10 | Chloride                         | ppm   | ASTM D - 512  | 0.2 max   |
| 11 | SULPHUR                          | ppm   | ASTM D - 5623 | 0.5 max   |
| 12 | Carbonisable PT - CO             |       | ASTM E - 346  | 30 max<br>APHA                                  |
| 13 | Hydrocarbons (Water Miscibility) |       | ASTM D - 1722 | Passes test                                     |
| 14 | Odor                             |       | ASTM D - 1296 | Characteristi<br>c with<br>nonresidual<br>odour |
| 15 | Color PT-CO APHA                 |       | ASTM D - 1209 | 5 max<br>APHA                                   |
| 16 | Non Volatile Matter              |       | ASTM D - 1353 | 10 max<br>mg/kg                                 |
| 17 | Alkalinity as HN3                | WT%   | ASTM D - 1614 | 0.003 max                                       |

Shipping : Bulk Carrier

## Acetic Acid

| #  | PROPERTY                        | Units                            | Test Method      | Value            |
|----|---------------------------------|----------------------------------|------------------|------------------|
| 1  | Acetic Acid                     | wt %                             | * M602.50        | 99.85 min        |
| 2  | Water                           | wt %                             |                  | 0.15 max         |
| 3  | Formic Acid                     | wt %                             |                  | 0.05 max         |
| 4  | Acetaldehyde                    | wt %                             |                  | 0.05 max         |
| 5  | Iron ( Fe )                     | Ppm (wt)                         |                  | 1.0 max          |
| 6  | Heavy Metals ( Pb )             | Ppm (wt)                         |                  | 1.0 max          |
| 7  | Propionic Acid                  | Ppm (wt)                         | * M602.512       | 100 max          |
| 8  | Iodides ( T+Mel )               | Ppm (wt)                         |                  | 0.04 max         |
| 9  | Permanganate Time               | h                                | * M602.501       | 2 min            |
| 10 | Color                           | Platinu<br>m-<br>Cobalt<br>scale | ASTM<br>D-1209   | 10 max           |
| 11 | Sulphate                        | Ppm (wt)                         | **               | 1 max            |
| 12 | Chloride                        | Ppm (wt)                         | **               | 1 max            |
| 13 | Nonvolatile Residue             | Wt %                             | ASTM<br>D-1353** | 0.003 max        |
| 14 | Density at 20 °c                | Kg/l                             | ASTM<br>D-1298** | 1.408 -<br>1.501 |
| 15 | Distillation range at 1.013 bar | °C                               | ASTM<br>D-1078** | 117.5 -<br>119   |
| 16 | Freezing Point                  | °C                               | **               | 16.35 min        |
| 17 | Flash Point                     | °C                               |                  | 40 - 55          |

\* Monsanto's analysis methods updated by the Licensor and ASTM D-1209  
Methods will be used to check guaranteed figures.  
\*\* Equivalent analysis methods should be used to check given figures.

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