IOC JET A-1 is a petroleum distillate blended from kerosene fractions having Aromatics below 20 % v/v, Total sulphur below 0.25 % mass, Mercaptan Sulphur below 0.002 % mass, freezing point below - 47 °C and a flash point above 38 °C. It contains Static Dissipator additive STADIS 450.

It meets the requirement of:

:: IS 1571: 2001 (Seventh Revision)
:: DEF STAN 91-91 Issue 5
:: ASTM D 1655 (JET A-1)
:: AFQRJOS – Issue 20, March’ 2005

### Specification:

<table>
<thead>
<tr>
<th>SI No. Characteristics</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td></td>
</tr>
<tr>
<td>(a) Visual</td>
<td>Clear, bright, visually free from solid matter and un-dissolved water at normal ambient temperature</td>
</tr>
<tr>
<td>(b) Colour (Saybolt)</td>
<td>Report</td>
</tr>
<tr>
<td>(c) Particulate contamination at point of Manufacture, mg/l, Max</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Composition</strong></td>
<td></td>
</tr>
<tr>
<td>(a) Acidity, total mg KOH/g, Max</td>
<td>0.015</td>
</tr>
<tr>
<td>(b) Aromatics, percent by volume, Max</td>
<td>20</td>
</tr>
<tr>
<td>(c) Olefins content, percent by volume, Max</td>
<td>5.0</td>
</tr>
<tr>
<td>(d) Sulphur, total percent by mass, Max</td>
<td>0.25</td>
</tr>
<tr>
<td>Sulphur, Mercaptan, percent by mass, Max</td>
<td>0.002</td>
</tr>
<tr>
<td>(e) Doctor test</td>
<td>Negative</td>
</tr>
<tr>
<td>(f) Refining component, at the point of manufacture:</td>
<td></td>
</tr>
<tr>
<td>(a) Hydro processed component, %, v/v</td>
<td>Report</td>
</tr>
</tbody>
</table>


(b) Severely hydro processed component, \%, v/v.

Volutility

(a) Distillation

Fuel Recovered:

- Initial boiling point, \(0^\circ\)C
- 10 percent by volume, at \(0^\circ\)C, Max: 205
- 50 percent by volume, at \(0^\circ\)C
- 90 percent by volume, at \(0^\circ\)C
- Final boiling point, \(0^\circ\)C Max: 300
- Residue percent by volume Max: 1.5
- Loss, percent by volume, Max: 1.5

(b) Flash point (Abel), \(0^\circ\)C Min: 38

(c) Density at 15 \(^\circ\)C; \(775\) to \(840\) kg/m\(^3\)

Fluidity

(a) Freezing point, \(0^\circ\)C, Max: -47

(b) Kinematic Viscosity. (mm\(^2\)/s) at –20 \(^\circ\)C Max: 8.0

Combustion

(a) Specific energy
MJ/Kg., Min. OR

42.8

OR

Product of API gravity and Aniline Point, Min.
4800

(b) Smoke point, mm, Min OR

25

OR

Smoke point, mm, Min
and Naphthalenes, percent by volume, Max.
19

3.0

Corrosion
(a) Copper strip corrosion, for 2 h at 100 °C Not worse than No. 1
Silver strip corrosion, for 4 h at 50 °C classification, Max.
(b) 0

Stability

Thermal stability (JFTOT) 25.0
Filter pressure differential, mm Hg, Max.
(a)
(b) Tube rating, visual Less than 3, No. 'PEACOCK' or 'ABNORMAL' Colour deposits

Contaminants

(a) Existent gum, mg/100 ml, Max 7
(b) Water reaction:

Interface rating, Max. 1b
Separation rating, Max. Sharp separation no emulsion or precipitate, within or upon either layer
(c) Micro Separometer rating at point of manufacture MSEP, (WSIM)Min.. 70 (with SDA) 85 (without SDA)

Conductivity

Electrical conductivity, pS/m (at temperature) 50, Min. 450, Max.

Lubricity

Lubricity, WSD mm, Max. 0.85