



## Fuels Technical Data Sheet

# F-44: Military Aviation Kerosine – JP-5; AVCAT/FSII

### Product Description

F-44 is a kerosine grade of aviation fuel suitable for most turbine-engined aircraft. This military fuel grade is intended specifically for use on naval aircraft carriers, where a fuel with a higher flash point than standard Jet A-1/JP-8 is required for on-board safety reasons.

Military aviation kerosine supplied under the NATO Code F-44 normally conforms to either the US MIL-DTL-5624 (JP-5) or the UK DEF STAN 91-86 (AVCAT/FSII) specification. This grade is not widely available and is manufactured by only a small number of refineries worldwide. As with the more widely used F-34 grade, F-44 is doped with FSII (Fuel System Icing Inhibitor) and CI/LI (Corrosion Inhibitor/Lubricity Improver) additives.

### Product Application

F-44 can be used in aircraft gas turbine engines, auxiliary power units (APUs), and aero-derived ground/marine based turbine engines, for which the engine manufacturer has approved this grade of fuel.

### Features/Benefits

F-44 is manufactured to provide the balanced set of properties required for satisfactory performance in aircraft, viz: good low temperature flow characteristics, controlled volatility, resistance to oxidation and thermal degradation, clean and efficient combustion. Specifically, F-44 is manufactured with a minimum flashpoint of 60°C (compared with 38°C minimum for F-34) to improve safety during storage and handling of the fuel onboard ship.

To provide satisfactory performance in military aircraft, this grade of fuel is formulated with FSII (Fuel System Icing Inhibitor) and CI/LI (Corrosion Inhibitor/Lubricity Improver) additives.

F-44 is manufactured, stored, distributed and delivered under the most stringent quality assurance procedures to ensure that only clean, dry, on-specification fuel is supplied to aircraft.

### Care & Handling

Before handling refer to the Material Safety Data Sheet. This product is only to be used in accordance with equipment manufacturers' recommendations.

### Health & Safety Information

Based on available information, this product is not expected to produce adverse effects on health when used for the intended application and the recommendations provided in the Material Safety Data Sheet are followed.



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### Typical Properties

Property		Max Value	Min Value
Density @ 15°C	kg/m <sup>3</sup>	845.0	788.0
Flash Point	°C		60
Freezing Point	°C	-46	
Distillation end point	°C	300	
Aromatics Content	%v	25.0	
Sulphur content	%m	0.20	

The F-44 specifications contain many more parameters, several of which are specific to jet fuel, e.g. thermal oxidative stability. Regarding fuel additives, only those specifically approved by the aircraft and engine manufacturers are permitted. For full details refer to the specification.

### Specifications

The main, internationally recognised, military specifications for this grade are:
MIL-DTL-5624 (JP-5)
DEF STAN 91-86 (AVCAT/FSII)
Other, similar, national specifications may also exist.

**Whilst these two fuel specifications are not identical in all respects, the two fuel grades are considered to be interchangeable according to NATO guidelines.**

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