# **E**∕xonMobil

## ExxonMobil Jet Fuel

ExxonMobil Commercial Fuel , Japan

### Product Description

Jet A and Jet A-1 are kerosene-type fuels. The primary difference between the two is freeze point, the temperature at which wax crystals disappear in a laboratory test.

Jet A, which is mainly used in the United States, must have a freeze point of minus 40°C or below and does not typically contain static dissipator additive. Jet A-1 must have a freeze point of minus 47°C or below and for locations outside the United States, this fuel normally contains static dissipator additive. There are other key differences between the manufacturing specification within the United States and Europe/Africa/Middle East/Australasia.

ExxonMobil Jet A and ExxonMobil Jet A-1 meet the requirements of ASTM D1655 Standard Specification for Aviation Turbine Fuels. ExxonMobil Jet A-1 also complies with U.K. DEF STAN 91-091, and the JIG (Joint Inspection Group) Aviation Fuel Requirements for Jointly Operated Systems (Check List). Jet A-1 manufactured to Def. Stan. 91-091 has a lower max limit for acidity and additional requirement for conductivity. In all cases, the most recent issue of relevant specifications applies to the product supplied.

#### Specifications

ExxonMobil Jet Fuel meets the following industry specifications:	ExxonMobil Jet A	ExxonMobil Jet A-1
ASTM D1655	Х	X
CGSB 3.23	Х	х
U.K. DEF STAN 91-091		Х

#### Product Properties ASTM D1655, CGSB 3.23, and Def. Stan 91-091

Note: where the required significant figures differ between specs, the larger amount of significant figures is shown below

	Jet A	Jet A-1
Acidity, mg KOH/g	0.10 Max.	0.10 Max. (0.015 Max for Def. Stan 91-091)
Aromatics, Vol. %	25 Max.	25.0 Max.
Sulphur, mercaptan, Wt. %	0.003 Max.	0.0030 Max.
Sulphur, total, Wt. %	0.30 Max.	0.30 Max.
10% Distillation, °C	205 Max.	205.0 Max.
Final Boiling Point, °C	300 Max.	300.0 Max.
Distillation Residue, %	1.5 Max.	1.5 Max.
Distillation Loss, %	1.5 Max.	1.5 Max.
Flash Point, °C	38 Min.	38.0 Min.
Density @ 15°C, kg/m3	775 to 840	775.0 to 840.0
Freeze Point, °C	-40 Max	-47.0 Max

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	Jet A	Jet A-1
Viscosity @ -20°C, mm/s	8.0 Max.	8.000 Max.
Net Heat of Combustion, MJ/kg	42.8 Min.	42.80 Min.
One of the following shall be met:		
1) Smoke Point, mm, or	25.0 Min.	25.0 Min.
2) Smoke Point, mm, and	18.0 Min.	18.0 Min.
Naphthalenes, Vol. %	3.0 Max	3.00 Max.
Copper Strip Corrosion, 2 h % 100°C	No. 1 Max.	No. 1 Max.
Thermal Stability @ 260°C:		
-Filter pressure drop, mm Hg	25 Max.	25 Max.
-Tube Deposits	< 3 Max. No Peacock (P) or Abnormal (A)	< 3 Max. No Peacock (P) or Abnormal (A)
Existent Gum, mg/100 mL.	7 Max.	7 Max.
MSEP Rating		
-Without electrical conductivity additive	85	85
-With electrical conductivity additive	70	70
Electrical conductivity, pS/m *Use of conductivity improver additive and resulting limits are optional in ASTM D1655	50 Min. 600 Max.*	50 Min. 600 Max.*

#### Health and Safety

Health and Safety recommendations for this product can be found on the Material Safety Data Sheet (MSDS) @ <u>http://www.msds.exxonmobil.com/psims</u> /psims.aspx

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Due to continual product research and development, the information contained herein is subject to change without notification. Typical properties may vary slightly.

