HyJet™ IV-A Plus Page 1 of 4

# **E**xonMobil

# HyJet™ IV-A Plus

ExxonMobil Aviation, Greece

Fire-Resistant Phosphate Ester Aviation Hydraulic Fluid

### **Product Description**

Mobil HyJet IV-Aplus is a fire-resistant phosphate ester hydraulic fluid designed for use in commercial aircraft. It is the best-performing Type IV fluid and approach great extent many of the performance capabilities of Type V fluids, including high temperature stability, long fluid life, density, and rust protection. It is superior to al Type IV fluids in these respects. Mobil HyJet IV-A plus meets the specifications of all major aircraft manufacturers and SAE AS1241.

#### Features and Benefits

Mobil HyJet IV-A plus offers the following key features and benefits:

| Features  | Advantages and Potential Benefits  |
|---|--|
| Best in high temperature stability among Type IV fluids             | Longer fluid life.  Lesser need to replace fluid due to degradation.  Reduced hydraulic system maintenance costs     |
| Lowest density Type IV fluid  | Reduced weight of the hydraulic fluid carried by aircraft.  Reduced aircraft fuel consumption, lower operating costs |
| Effective rust protection   | Reduced the risk of equipment damage in the event of major water contamination                                       |
| Excellent low temperature flow (viscosity) properties               | Precise hydraulic system control and response even during extended range/polar flights.  Longer equipment life       |
| Excellent deposit control   | Longer equipment life.  Reduced maintenance costs  |
| Excellent protection against electro-chemical corrosion (erosion)   | Protection against servo valve and pump damage   |
| Approved by all major aircraft manufacturers                        | Use as fleet lubricant by airline operators  |
| Fully compatible with all approved phosphate ester hydraulic fluids | Flexibility in use by airline operators  |

### **Applications**

Mobil HyJet IV-A plus fire-resistant aviation hydraulic fluid is used in commercial aircraft hydraulic systems where phosphate hydraulic fluids are recommende compatible in all proportions with commercial Type IV and Type V phosphate ester aviation hydraulic fluids.

Mobil HyJet IV-A plus meets or exceeds the following industry and aircraft builder specifications. It is approved against all commercial aircraft manufacturer require and is included in their Qualified Products Lists.

## Specifications and Approvals

AIRBUS NSA 307110N - Type IV, Low Density

Airbus Canada A2MS 564-003 Type IV, Class I, Grade A

HyJet™ IV-A Plus Page 2 of 4

| This product has the following approvals:      |
|--|
| CESSNA, Type IV                                |
| EMBRAER Type IV, Low Density                   |
| FOKKER Type IV, Low Density                    |
| GULFSTREAM 1159SCH302J - Type IV, Low Density  |
| LOCKHEED C-34-1224C - Type IV, Low Density     |
| ATR Type IV, Low Density                       |
| BOEING BMS 3-11P - Type V, Grade B and Grade C |
| BOEING BMS 3-11P - Type IV, Low Density        |
| Boeing-Long Beach DMS2014H - Type 4            |
| BAE/AVROBAC.M.333C - Type IV, Low Density      |

## This product meets or exceeds the requirements of:

SAE AS1241D, Type IV, Class 1 (low density)

## Properties and Specifications

| Property  |         |
|---|---------|
| Acid Number, mgKOH/g, ASTM D974   | 0.04    |
| Autoignition Temperature, F, ASTM D2155   | 800     |
| Bulk Modulus, Isothermal secant at 100 F/3000 psi, psi, ASTM D6793                  | 210000  |
| Calcium, ppm, ICPES   | 103     |
| Chlorine, ppm, XRF  | 10      |
| Coefficient of Thermal Expansion, 25 to 100 C, per degree C, API MPMS 11.1          | 0.00086 |
| Conductivity @ 20 C, MicS/cm, ASTM D2624  | 1.4     |
| Density @ 60 F, lb/USg, ASTM D4052  | 8.35    |
| Fire Point, Cleveland Open Cup, °F, ASTM D92  | 370     |
| Flash Point, Cleveland Open Cup, °F, ASTM D92                                       | 349     |
| Foam, Sequence I, Collapse Time, s, ASTM D892                                       | 15      |
| Foam, Sequence II, Collapse Time, s, ASTM D892                                      | 13      |
| Foam, Sequence III, Collapse Time, s, ASTM D892                                     | 16      |
| Four-Ball Wear Test, Scar Diameter, 10 kg, 600 rpm, 1 h, 75 C, mm, ASTM D4172 (mod) | 0.33    |
| Four-Ball Wear Test, Scar Diameter, 4 kg, 600 rpm, 1 h, 75 C, mm, ASTM D4172 (mod)  | 0.22    |

HyJet™ IV-A Plus Page 3 of 4

| Property  |         |
|---|---------|
| Four-Ball Wear Test, Scar Diameter, 40 kg, 600 rpm, 1 h, 75 C, mm, ASTM D4172 (mod) | 0.73    |
| Kinematic Viscosity @ 100 F, mm2/s, ASTM D445                                       | 10.6    |
| Kinematic Viscosity @ 127.6 C, mm2/s, ASTM D445                                     | 2.6     |
| Kinematic Viscosity @ -15 F, mm2/s, ASTM D445                                       | 130     |
| Kinematic Viscosity @ 210 F, mm2/s, ASTM D445                                       | 3.6     |
| Kinematic Viscosity @ -65 F, mm2/s, ASTM D445                                       | 1320    |
| Potassium, ppm, ICPES/AA  | 38      |
| Shear Stability, % Kinematic Viscosity Loss, 40 C, %, ASTM D5621                    | 22      |
| Sodium, ppm, ICPES  | 1       |
| Specific Gravity, 25 C/25 C, ASTM D4052   | 0.996   |
| Specific Heat Capacity, cal/g-deg.C, Reference                                      | 0.41    |
| Sulfur, ppm, ICPES/XRF  | 224     |
| Viscosity Index, ASTM D2270   | 280     |
| Water Content, mass%, ASTM D6304  | 0.1     |
| Foam, Sequence I, Tendency, ml, ASTM D892   | 27      |
| Foam, Sequence II, Tendency, ml, ASTM D892  | 23      |
| Foam, Sequence III, Tendency, ml, ASTM D892   | 28      |
| Pour Point, °F, ASTM D97 / ASTM D5950   | -80     |
| NAS 1638 Class, HIAC, ISO 11500   | 7       |
| Thermal Conductivity at 40 C, Cal / (cm s oC), Reference                            | 0.00033 |

## Health and safety

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

All trademarks used herein are trademarks or registered trademarks of Exxon Mobil Corporation or one of its subsidiaries unless indicated otherwise.

04-2024

Exxon Mobil Corporation

22777 Springwoods Village Parkway

Spring TX 77389

For additional technical information or to identify the nearest U.S. ExxonMobil supply source, call +1 800 662-4525.

http://www.exxonmobil.com

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



HyJet™ IV-A Plus Page 4 of 4

© Copyright 2003-2024 Exxon Mobil Corporation. All Rights Reserved