



## Our Story...

Lear Chemical has been successfully developing and compounding anti corrosion lubricants and greases since 1979. For over thirty years we have been effectively solving corrosion related problems in the Automotive, Aviation, Industrial, Marine, Powersports and Recreational industries. Our technical success is balanced by combining laboratory testing with specific field evaluations to ensure that each formula produced meets advertised claims and customer expectations.

As a value added service Lear Chemical offers custom formulating services for clients desiring Private Label formulations that incorporate proven technologies, found in our commercial product lines. Research and development is not just a part of our name...

Why Consider ACF-50:

ACF-50, Anti Corrosion Formula, is a state of the art anti-corrosion lubricant compound, specifically designed for the Aero Space Industry. ACF-50's unique chemistry offers excellent penetration, coupled with an unmatched 24 months of "active" corrosion protection.

Designed specifically to perform as both a Corrosion Inhibiting Compound (CIC) and a Corrosion Prevention Compound (CPC). ACF-50's blend of non-flammable, non-toxic, polar bonding inhibitors and moisturedisplacing additives penetrate deep into corrosion cells to actively remove electrolytes. No longer in contact with the metal surface, these electrolytes evaporate. ACF-50's resulting dielectric fluid film acts as an "off-switch" for the corrosion process.

- <sup>6</sup> Complete anti-corrosion solutions for airframe, avionics and ground support equipment.
- <sup>o</sup> Significantly reduces corrosion events in both Structure & Avionics.
- Ultra Thin Film promotes weight reduction, improving payload capacity.
- ACF-50 is blended utilizing superior quality control ISO 9002 standards and has an excellent customer satisfaction record with a 0.0% return rate.
- Removal not required for re-application, creates no HAZMAT residue.
- ACF-50 is Non-Toxic according to EPA / OSHA standards.
- ◊ VOC compliant world wide.







# **KILLS CORROSION ON CONTACT**

### FUSELAGE • STABILIZERS • AVIONICS • MICRO SWITCHES **CANNON PLUGS • ANTENNA MOUNTS**

### **ACF-50** Applications

#### Single Engine & Light Twins

Spray into: wing sections, hinges, teleflex cables, air vent cables, trim cables, throttle cables, battery boxes, engine compartments

#### **Rotorwing Aircraft**

Spray into: tail boom section, engine gear, air vent cables, rotor head, grip areas. Spray or wipe on blades.

#### **Cargo & Regional Airlines**

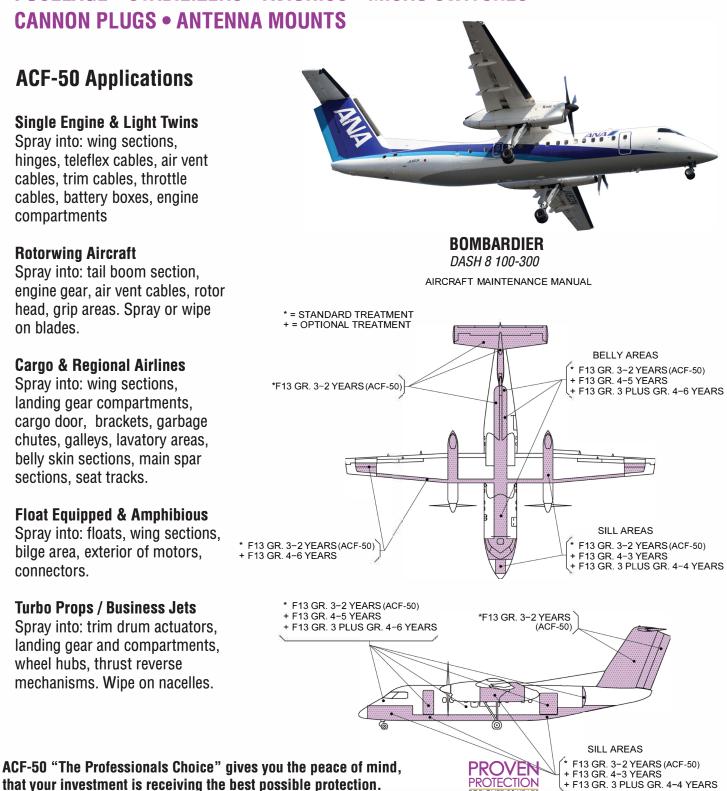
Spray into: wing sections, landing gear compartments, cargo door, brackets, garbage chutes, galleys, lavatory areas, belly skin sections, main spar sections, seat tracks.

#### Float Equipped & Amphibious

Spray into: floats, wing sections, bilge area, exterior of motors, connectors.

#### **Turbo Props / Business Jets**

Spray into: trim drum actuators, landing gear and compartments, wheel hubs, thrust reverse mechanisms. Wipe on nacelles.





FOR OVER 30 YEARS



# Prevents and Deactivates Exisiting Corrosion

#### **ACF-50 Corrosion Abatement Procedure**

#### 2024-T3 Aluminium Fogged in a Sulfurous Acid/Salt For for 192 hours

Panels pretreated with ACF-50 showed an average weight loss of only **1.9 mg.** 



Untreated panels showed and average weight loss of **150.1 mg.** 



Conclusion: ACF-50 prevents the formation of new corrosion cells.

Conclusion: Untreated panels corrode rapidly.

Untreated panels exposed for 96 hours, then treated with ACF-50 and exposed for an additional 96 hours showed a loss of only **69.8 mg.** 



**Conclusion:** *ACF-50 stops the corrosion process on contact.* 

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#### **ACF-50 Performance Qualified**

#### MIL-PRF 81309 Characteristics / requiremen

#### **Additional Test Data**

CHARACTERISTICS / REQUIREMENTS	RESULTS	TEST IDENTITY	TEST METHOD	RESULTS
- Minimum flash point / 60°C (140°F)	Conforms / 175°F	BMS 3-23E	- Flash Point / ASTM D93	Pass
- Synthetic Sea Water Displacement / No visible corrosion	Conforms	BMS 3-23E	- Sprayability / MIL-C-1617D	Pass
- Removability / Not more than 3 cycles to remove	Conforms	BMS 3-23E	- Low Temperature Adhesion / MIL-C-1617D	Pass
- Abrasives / Not present	Conforms	BMS 3-23E	- Nonvolatile Content / ASTM D1644	Pass
- Maximum Film Thickness / Type II: 0.0005 inches	Conforms	Douglas Aircraft CSD #1	- Painted Surfaces / ASTM F 502	Conforms
- Sprayability / Sprayable	Conforms	Douglas Aircraft CSD #1	- Stress Crazing Acrylic Plastics / <b>ASTM F 484</b>	Conforms
- Corrosivity / No visible corrosion	Conforms	Douglas Aircraft DMS 2150	- Product Composition / ASTM D-1644A	Conforms
- Staining / No visible evidence of staining	Conforms	Douglas Aircraft DMS 2150	- Toxicity / ASTM B-117	Conforms
- Minimum Dielectric Breakdown / 25,000 volts	Conforms / 38,000 volts	Volatile Organic Content	- California Air Quality Compliant / ASTM 2369	166.9g/L
- Mixability of Compounds / No evidence of separation	Conforms	Water Displacement Ability	- MIL-C-1617D	Conforms
- Lubricity of Compounds / Less than 0.20	Conforms	Corrosion Inhibiting	- FED-STD 791 / <b>ASTM G 34</b>	Pass
- Effect on Electric Components / No change	Conforms	Airbus Industrie	- Corrosion Resistance To: Turco Toilet Fluid, O	range Juice,
- Effect on Electric Connectors / No increase in resistance	Conforms	TNA 007.10138	Coke, Coffee, De-Icing Fluid 3:4-1:2-1:4, %5 NaOH, %5 HCI, 5% HNO <sup>3</sup> , %10 CH <sup>3</sup> COOH, %45	Ethanol

#### Reduced Maintenance Costs Improved Reliabilty





# **OEM Approved**

BOMBARDIER

DASH 8 100-300 Corrosion Preventative Compound Electrical System - SYD-8-20-001 Structural AMM-51-31-00 REF 13-16 BAMS 565-006 TYPE III



ATR REGIONAL TRANSPORT • ATR 42-72 Corrosion Protection Ref. JIC-122351-PRO-10 000

**BAE SYSTEMS •** BAE 146-100

Material Spec 89/042

**Corrosion Preventative Compound** 



EMBRAER / EM RJ 130-145 Periodic Lubrication of Landing Gear SNL 145-32-0035 Nov/2008



HAWKER-BEECHCRAFT / BEECH 1900C-D Corrosion Control Manual 114-590021-197



AEROCOMMANDER AIR TRACTOR BOEING HELICOPTER BELL HELICOPTER TEXTRON BRITISH AEROSPACE CANADAIR CESSNA CIRRUS CONCORDE BATTERY ENSTROM ENSTROM ERICKSON EXTRA AIRCRAFT GE ENGINES GULFSTREAM AEROSPACE HILLER AIRCRAFT LAKE AIRCRAFT LOCHEED MARTIN MCDONNELL DOUGLAS CORP MD HELICOPTER MOONEY AIRCRAFT

PILATUS AIRCRAFT PIPER PRATT & WHITNEY ROBINSON ROLLS ROYCE SAFRAN ENGINES SIKORSKY SCHWEIZER VAN AIRCRAFT WIPAIRE

The FAA also recognizes ACF-50 as a "Suitable Corrosion Preventative Compound"





# A treatment with ACF-50 every two years puts airframe corrosion in a permanent holding pattern...







### Complete Anti-Corrosion Solutions For Airframe, Avionics And Ground Support Equipment.



