



PETROFERM CLEANING PRODUCTS APPROVED FOR AEROSPACE

Products	Applications	Effectively Cleans	Approvals
BIOACT® 105 <i>Blend of Non-Linear Alcohol, Citrus Terpene & Aliphatic Hydrocarbons</i>	Cleaning Prior to Final Assembly & Maintenance Operations Surface Preparation Hand-Wipe Cleaning	Adhesives, Asphalt, Buffing Compound, Corrosion Inhibitors, Coolant, Grease, Hard Water Stains, Hydraulic Fluid, Inks, Lapping Compound, Mold Release Agents, Oil, Paint Overspray (wet), Pitch, Polishing Compound, Sealant, Silicone Fluid, Tar, Toner, Wax	<ul style="list-style-type: none"> • Approved by United Airlines Engine Parts Cleaning, Part #: SOL3001-17 for BIOACT 105 Precision Cleaner, SOL3001-17TWL10X12 for the Saturated Wipes. • Approved by Pratt & Whitney Commercial Standard Practices Manual SPOP 208, PMC 8929 Hand-Wiping Solvent • Approved by Rolls Royce CSS No. 255 Type A Non-Halogenated Organic Solvent Cleaner (reference specs CSS200, CSS253, RPS578) • Approved by GulfStream Aerospace Standard GAS115H for Solvent Cleaner/Degreaser, Mixed Hydrocarbons, Part No. GAS115H1 • Approved by GE for Cleaning Method No. 23 Hand-Wipe Degreasing, Task 70-21-23-110-053 (CO4-251) • Approved by GE for as alternate to TASK 70-21-01-110-001, Cleaning Method No.1 Solvent Degreasing, or TASK 70-21-22-110-042 Cleaning Method No. 22 Light Duty Aqueous Cleaning for Localized Hand-Wipe Cleaning. • Conforms to Boeing D6-17487 Revision L Exterior & General Cleaners & Liquid Waxes (exceptions: ASTM F-484 Stress Cracking Tests on Acrylic Plastics, Type C) • Conforms to Douglas Aircraft Co CSD #1 General Purpose Cleaner (exceptions: ASTM F-484 Stress Cracking Tests on Acrylic Plastics, Type C) • Conforms to ASTM F-945, ASTM F-1110, ASTM F-502, ASTM F-519-77, ASTM F-485, ASTM F-483
BIOACT® 121 <i>Citrus Terpene Based</i>	Cleaning Prior to Final Assembly & Maintenance Operations Surface Preparation Hand-Wipe Cleaning	Adhesives, Asphalt, Buffing Compound, Corrosion Inhibitors, Coolant, Grease, Hydraulic Fluid, Ink, Lapping Compound, Mold Release Agent, Oil, Pitch, Polishing Compound, Sealant, Tar, Toner, Wax	<ul style="list-style-type: none"> • Conforms to Boeing D6-17487 Revision N Solvent Cleaners, General Cleaning • Conforms to Boeing BAC 5750 Section 5.11:d-Limonene, 95% minimum, Solvent Cleaning • Conforms to Boeing D6-17487 Revision L Exterior and General Cleaners and Liquid Waxes • Conforms to Douglas Aircraft Company CSD#1 Type 1: Materials & Procedures for General Exterior Cleaning of Painted & Unpainted Surfaces • Conforms to ASTM F-1110, ASTM F-502, ASTM F-519-93, ASTM F-945, ASTM F-485, ASTM F-484, ASTM F-483

AXAREL, BIOACT, LENIUM and RE-ENTRY are registered trademarks of Petroferm Inc.
 CleanSafe is a trademark of Petroferm Inc.



PETROFERM CLEANING PRODUCTS APPROVED FOR AEROSPACE

Products	Applications	Effectively Cleans	Approvals
BIOACT® 145 <i>Blend of Non-Linear Alcohol & Aliphatic Hydrocarbons</i>	Cleaning Prior to Final Assembly & Maintenance Operations Surface Preparation Hand-Wipe Cleaning	Asphalt, Buffing Compound, Corrosion Inhibitors, Coolant, Fingerprints, Greases, Hydraulic Fluid, Ink, Lapping Compound, Mold Release Agent, Oil, Paint Overspray (wet), Polishing Compound, Sealant, Silicone Fluid, Tar, Toner, Wax	<ul style="list-style-type: none"> Approved by GulfStream Aerospace Standard GAS115H for Solvent Cleaner/Degreaser, Mixed Hydrocarbons, Part No. GAS115H1 Conforms to Douglas Aircraft Company CSD#1 General Purpose Cleaner Conforms to Boeing D6-17487 Revision L Exterior & General Cleaners & Liquid Waxes
BIOACT® PCG <i>Blend of Highly Refined, Low Odor Terpenes</i>	General & Final Cleaning Manual, Spray & Flush Cleaning Prior to Painting Immersion Cleaning for Metal Detail Parts	Adhesives, Asphalt, Buffing Compound, Corrosion Inhibitors, Coolant, Grease, Hydraulic Fluid, Ink, Lapping Compound, Mold Release Agent, Oil, Pitch, Polishing Compound, Sealant, Tar, Toner, Wax	<ul style="list-style-type: none"> Conforms to Boeing BAC 5750 Section 5.11:d-Limonene, 95% minimum, Solvent Cleaning
BIOACT® 280 <i>Blend of Aliphatic Esters and Surface-Active Agents</i>	General & Final Cleaning Plating Wax Remover on GEAE & CFMI Engine Hardware Alternative to Chlorinated Solvents for Removing Wax from Parts	Buffing Compound, Coolants, Corrosion Inhibitors, Fingerprints, Grease, Hydraulic Fluid, Lapping Compound, Mold Release Agents, Oil, Pitch, Plating Wax, Polishing Compound, Silicone Fluid, Tar	<ul style="list-style-type: none"> Approved by Pratt & Whitney MCL E-215 Titanium Stress Corrosion Test Approved by Rolls Royce CSS No. 254 Class A Semi-Aqueous Cleaning Fluids Suitable or Use on Metallic Materials (reference specs MLC104, CSS200, CSS253, RPS461, RPS498) Approved by Rolls Royce CSS No. 255 Type A Non-Halogenated Organic Solvent Cleaner Suitable or Use on Metallic Materials (reference specs MLC104, CSS200, CSS253, RPS578) Approved by GE Aircraft Engines as a General Parts Cleaner & Plating Wax Remover on GEAE & CFMI Engine Hardware Conforms to Allied Signal Engines (Honeywell) EMS 53170 Revision C 10-21-97 Type 1 Material Requirements for Aqueous Cleaning and Semi-Aqueous Degreasing, Tests A,B,C,F,G Approved by Pratt & Whitney Commercial Standard Practices Manual SPOP 37 Method 2; PMC 8913-A, MLC Supported by Hawker Pacific Aerospace, UK, Ltd. as a General Purpose High Temperature Degreasing Agent Conforms to ASTM F-1110, ASTM F-945, ASTM F-519

AXAREL, BIOACT, LENIUM and RE-ENTRY are registered trademarks of Petroferm Inc.
 CleanSafe is a trademark of Petroferm Inc.



PETROFERM CLEANING PRODUCTS APPROVED FOR AEROSPACE

Products	Applications	Effectively Cleans	Approvals
BIOACT® 280E <i>Blend of Aliphatic Esters and Surface-Active Agents</i>	General & Final Cleaning Plating Wax Remover on GEAE & CFMI Engine Hardware Alternative to Chlorinated Solvents for Removing Wax from Parts	Buffing Compound, Coolant, Fingerprints, Grease, Hydraulic Fluid, Lapping Compound, Mold Release Agent, Oil, Pitch, Plating Wax, Polishing Compound, Silicone Fluid, Tar	<ul style="list-style-type: none"> Conforms to Boeing D6-17487 Revision N Exterior and General Cleaners and Liquid Waxes, Polishes and Polishing Compounds (exceptions: ASTM F-484 Stress Cracking Tests on Acrylic Plastics, Type C) Conforms to Pratt & Whitney PWA 36604 Revision B Hot Corrosion Testing of Standard Gas Turbine Engine Alloys, Alloys AMS 5544, 5536, 5608, 5508, 6359, 4037, 4375 Used by Hawker Pacific Aerospace, UK, Ltd. as a General Purpose High Temperature Degreasing Agent Conforms to ASTM F-945-98, ASTM F-502, ASTM F-519-93, ASTM F-1110
BIOACT® 288 <i>Blend of Aliphatic Esters and Surface-Active Agents</i>	General & Final Cleaning Alternative to Chlorinated Solvents for Removing Wax from Parts	Buffing Compounds, Coolants, Corrosion Inhibitors, Fingerprints, Grease, Hydraulic Fluids, Lapping Compounds, Mold Release Agents, Oil, Pitch, Plating Wax, Polishing Compounds, Silicone Fluids, Tar	<ul style="list-style-type: none"> Product in Testing According to Pratt and Whitney PWA 36604 Revision D Approval of Cleaners Used in Manufacture & Overhaul of Parts (Stress Corrosion ASTM F 945 & Hot Corrosion)
REENTRY® PREPSOLV <i>Premium, Ultra-Low Residue Terpene</i>	General & Final Cleaning Manual, Spray & Flush Cleaning Prior to Painting Immersion Cleaning for Metal Detail Parts	Asphalt, Buffing Compound, Corrosion Inhibitors, Coolant, Fingerprints, Grease, Hydraulic Fluid, Ink, Lapping Compound, Mold Release Agent, Oil, Paint Overspray (wet), Polishing Compound, Sealant, Silicone Fluid, Tar, Toner, Wax	<ul style="list-style-type: none"> Approved by the Department of the Navy WS 26024d Terpene Solvent, Ultra Low Residue for Use in Cleaning & Degreasing the Trident II D/5 First & Second Stage Motors (OWUAS) Approved by Boeing BAC 5750 Section 5.1s Glidsafe Prepsolv (Glidco: former manufacturer). Conforms to ASTM D-1353
REENTRY® PLUS 4 <i>Ultra-Low Residue Terpene</i>	General & Final Cleaning Manual, Spray & Flush Cleaning Prior to Painting Immersion Cleaning for Metal Detail Parts	Asphalt, Buffing Compound, Corrosion Inhibitors, Coolant, Fingerprints, Grease, Hydraulic Fluid, Ink, Lapping Compound, Mold Release Agent, Oil, Paint Overspray (wet), Polishing Compound, Sealant, Silicone Fluid, Tar, Toner, Wax	<ul style="list-style-type: none"> Approved by the Department of the Navy WS 26145c Terpene Blend Solvent, Ultra Low Residue for use in Cleaning & Degreasing Operations for Solid Rocked Motor Components. Conforms to ASTM D-1353

AXAREL, BIOACT, LENIUM and RE-ENTRY are registered trademarks of Petroferm Inc.
CleanSafe is a trademark of Petroferm Inc.



PETROFERM CLEANING PRODUCTS APPROVED FOR AEROSPACE

Products	Applications	Effectively Cleans	Approvals
LENIUM® GS <i>n-Propyl Bromide Based</i>	Vapor Degreasing Solvent	Buffing Compound, Corrosion Inhibitors, Coolant, Grease, Hydraulic Fluid, Lapping Compound, Oil, Polishing Compound, Silicone Fluid, Wax	<ul style="list-style-type: none"> • Conforms to ASTM F-945-98, ASTM F-1110, ASTM F-519-97
Solvating Agent 70 <i>Blend of Esters & Glycol Ethers</i>	General Cleaning for Co-Solvent Vapor Degreasing Process Wax Removal from Jet Turbine Blades	Corrosion Inhibitors, Coolant, Grease, Hydraulic Fluid, Ink, Oil, Silicone Fluid, Wax	<ul style="list-style-type: none"> • Used by GE Aircraft Engines
Solvating Agent 24 <i>Blend of Methyl Ester & Glycol Ether</i>	General Cleaning for Co-Solvent Vapor Degreasing Process	Corrosion Inhibitors, Coolant, Grease, Hydraulic Fluid, Ink, Oil, Silicone Fluid, Wax	<ul style="list-style-type: none"> • Used by Northrop Grumman
AXAREL® 4100 <i>Blend of Alcohol & Aliphatic Hydrocarbons</i>	General & Final Cleaning Manual & Flush Cleaning Prior to Painting Immersion Cleaning for Metal Detail Parts	Buffing Compound, Coolant, Grease, Oil, Hydraulic Fluid, Lapping Compound, Wax	<ul style="list-style-type: none"> • Approved by Rolls Royce CSS No. 255 Non-Aqueous Cleaning Fluids for Cold Liquid Degreasing Applications (reference spec RPS576)

AXAREL, BIOACT, LENIUM and RE-ENTRY are registered trademarks of Petroferm Inc.
 CleanSafe is a trademark of Petroferm Inc.



PETROFERM CLEANING PRODUCTS APPROVED FOR AEROSPACE

Products	Applications	Effectively Cleans	Approvals
AXAREL® 6100 <i>Blend of Aliphatic Hydrocarbons</i>	General & Final Cleaning Manual & Flush Cleaning Prior to Painting Immersion Cleaning for Metal Detail Parts	Buffing Compound, Coolant, Grease, Oil, Hydraulic Fluid, Lapping Compound, Wax	<ul style="list-style-type: none"> Approved by Rolls Royce CSS No. 255 Type A Non-Halogenated Organic Solvent Cleaner (reference specs CSS200, CSS253, RPS578)
AXAREL® 9100 <i>Blend of Aliphatic Hydrocarbons</i>	General & Final Cleaning Manual & Flush Cleaning Prior to Painting Immersion Cleaning for Metal Detail Parts	Buffing Compound, Coolant, Grease, High-Melting Wax, Oil, Hydraulic Fluid, Lapping Compound	<ul style="list-style-type: none"> Approved by Rolls Royce CSS No. 255 Type A Non-Halogenated Organic Solvent Cleaner (reference specs CSS200, CSS253, RPS578) Conforms to MIL PRF 680A Degreasing Solvent Type III Very High Flash Point (200°F) Military Symbol SD-3 Conforms to Royal Air Force Harrogate Montreal Protocol Alternatives Programme Replacement for Ozone Depleting Substances (1995) Mechanical Section, Lockheed Fort Worth, Texas February 22, 1995 Rolls Royce Plc. Assessment (1993/94) Conforms to ASTM D-1353, ASTM D-1296, ASTM D-130, ASTM F-1110, ASTM F-483, ASTM F-945
AXAREL® 52 <i>Blend of Mixed Aliphatic Hydrocarbons and Esters</i>	Semi-Aqueous Cleaner of Nickel-based, Cobalt-based, Magnesium-based, Copper-based, Aluminum, Ferrous & Titanium Alloy Parts & Electroplated Steel Exterior/General Cleaner	Buffing Compound, Oil, Grease, High-Melting Wax, Lapping Compound	<ul style="list-style-type: none"> Conforms to ASTM F-945
AXAREL® 56 <i>Blend of Mixed Aliphatic Hydrocarbons and Esters</i>	Semi-Aqueous Cleaner of Nickel-based, Cobalt-based, Magnesium-based, Copper-based, Aluminum, Ferrous & Titanium Alloy Parts & Electroplated Steel Exterior/General Cleaner	Buffing Compound, Oil, Grease, High-Melting Wax, Lapping Compound	<ul style="list-style-type: none"> Approved by Boeing BAC 5200 Cleaning, Preserving & Re-lubricating Anti-friction Bearings, Method II A Pressure Spray Cleaning, PSD 6-3 Approved by Boeing BAC 5763 Type II Aqueous Alkaline & Solvent/Emulsion Degreasers Supported by Hawker Pacific Aerospace, UK, Ltd. as a Diphase Cleaning/Degreasing Chemical Conforms to ASTM F-519-93

AXAREL, BIOACT, LENIUM and RE-ENTRY are registered trademarks of Petroferm Inc.
 CleanSafe is a trademark of Petroferm Inc.



PETROFERM CLEANING PRODUCTS APPROVED FOR AEROSPACE

Products	Applications	Effectively Cleans	Approvals
CleanSafe™ 787 <i>Blend of Surface-Active Agents, Builders & Defoaming Agents</i>	Emulsion Cleaning & Aqueous Degreasing Immersion & Spray Applications	Buffing Compound, Corrosion Inhibitors, Coolant, Grease, Hydraulic Fluid, Lapping Compound, Mold Release Agents, Oil, Polishing Compound, Silicone Fluid	<ul style="list-style-type: none"> Approved by Boeing BAC 5763 Type II Grade A Emulsion Cleaning & Aqueous Degreasing
CleanSafe™ 787C <i>Blend of Surface-Active Agents, Builders & Defoaming Agents</i>	Emulsion Cleaning & Aqueous Degreasing Immersion & Spray	Buffing Compound, Corrosion Inhibitors, Coolant, Grease, Hydraulic Fluid, Lapping Compound, Mold Release Agents, Oil, Polishing Compound, Silicone Fluid	<ul style="list-style-type: none"> Approved by Boeing BAC 5763 Type II Grade A Emulsion Cleaning & Aqueous Degreasing Conforms to GE Appendix F Recommended Practice for Certifying Agent Approval of Cleaning Products Used on Metallic Jet Engine Hardware (Sections 3.1.1, 3.1.4, 3.1.5, 3.1.6, 3.1.9, 3,1,10, 3,1,12) Conforms to Pratt & Whitney PWA 36604 Revision D Hot Corrosion, Stock Loss, Stress Corrosion, Compatibility with Non-Metallic Materials, Compatibility with PWA 407 Rubber Conforms to MIL-PRF-87937D Cleaning Compound, Aerospace Equipment Type IV – Heavy Duty, Water-Dilutable Cleaning Compound Conforms to ASTM F-519, MIL-DTL-83488d, ASTM F-483, SAE ARP 1755B, ASTM F-915, ASTM D-816, ASTM F-945, ASTM F-1111, ASTM F-1110, ASTM F-502, ASTM F-483, Wet Adhesion Tape Test

Specification Glossary

ASTM D-130 Copper Corrosion Test

ASTM D-816 Test Methods for Rubber Cement

ASTM D-1296 Odor Test, Low/Non-Residual

ASTM D-1353 Non-volatile Residue Test

ASTM F-483 Total Immersion Corrosion Test

ASTM F-484 Stress Cracking Test on Acrylic Plastics, Type C

ASTM F-485 Effects of Cleaners on Unpainted Aircraft Surfaces (Residue Test)

ASTM F-502 Effects of Cleaning & Chemical Maintenance Materials on Painted Aircraft Surfaces (Paint Softening Test)

ASTM F 519 Hydrogen Embrittlement

ASTM F-915 Stress Corrosion on Titanium

ASTM F-945 Stress-Corrosion of Titanium Alloys by Aircraft Engine Cleaning Materials

ASTM F-1110 Sandwich Corrosion Test (Bare and Clad 7075-T6)

ASTM F-1111 Low Embrittlement Cadmium Plate Corrosion Test

MIL-DTL-83488d IVD Aluminum Plated Specimen

SAE ARP 1755B Stock Loss Test Method, Effect of Cleaning Agents of Aircraft Engine Materials

AXAREL, BIOACT, LENIUM and RE-ENTRY are registered trademarks of Petroferm Inc.
CleanSafe is a trademark of Petroferm Inc.