

# Aerospace Chemical Solutions

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PAINT REMOVERS



AIRCRAFT EXTERIOR CLEANERS



SPECIAL PROCESS SOLUTIONS



MANUAL & SOLVENT CLEANERS



GAS PATH TURBINE ENGINE CLEANERS



AVIONICS CLEANERS





## PAINT REMOVERS

Product	Description	Approvals & Conformance
<b>B&amp;B™ 9095</b>	Hydrogen peroxide activated paint remover for aircraft exteriors including composites. High stability. Non-drying. Non-embrittling at 200-hour, 75% fracture strength.	Boeing DPM 5549, Boeing D6-17487, Douglas CSD #1, Tinker AFB QPL Purchase Description OC-LC-2009-01, TO 1-1-8, TO 1-1-24
<b>B&amp;B 5095</b>	General purpose hydrogen peroxide activated paint remover for aircraft exteriors.	Boeing D6-17487, Douglas CSD #1, Tinker AFB QPL Purchase Description OC-LC 2009-01, TO 1-1-8
<b>B&amp;B 5085</b>	Acid activated paint remover for aircraft exteriors.	MIL-R-81903 Effects on Metals
<b>B&amp;B 5151-B</b>	Air Force qualified polysulfide paint and sealant remover for aircraft exteriors.	TO 1-1-8
<b>B&amp;B 5151-M</b>	Navy qualified polysulfide paint and sealant remover for aircraft exteriors.	TT-R-2918
<b>B&amp;B 9201</b>	Heated immersion paint remover for aircraft wheels, landing gears and other aircraft components and ground equipment.	MIL-R-83936



## AIRCRAFT EXTERIOR CLEANERS

Product	Description	Approvals & Conformance
<b>B&amp;B JET-7</b>	Aircraft exterior cleaner for dirt, grime, light oil and hydraulic fluid e.g. Skydrol®. May be used in confined areas such as bilges and equipment bays.	MIL-PRF-87937 Type IV
<b>B&amp;B RE-GEL</b>	Gel-type aircraft exterior cleaner for light to medium soils.	MIL-PRF-87937 Type III
<b>B&amp;B 1995</b>	Gel-type aircraft exterior cleaner for heavy soils.	MIL-PRF-85570 Type V
<b>B&amp;B Contact E</b>	Non-abrasive spot cleaner for smudges, boot marks and other embedded soils.	MIL-PRF-85570 Type IV
<b>B&amp;B Contact X</b>	Low abrasive spot cleaner for thrust, smoke trail and rocket blast areas.	MIL-PRF-85570 Type III
<b>B&amp;B Contact XL</b>	Liquid cleaner-polish for painted and unpainted aircraft exterior surfaces. Rejuvenates paint. Reduces soil adhesion.	Boeing D6-17487, Douglas CSD #1, Continental Airlines (now United Airlines)
<b>B&amp;B Sparkle A</b>	Non-streaking, water-based windshield cleaner.	Alaska Airlines, Continental Airlines (now United Airlines), Horizon Air, Piedmont Airlines, SkyWest Airlines



## SPECIAL PROCESS SOLUTIONS

Product	Description	Approvals & Conformance
<b>CleanSafe™ 787C</b>	Very low-foaming aqueous solution for spray and agitated immersion cleaning equipment.	Bell Helicopter, Boeing BAC 5763/BAC 5749, Boeing Defense Sys HMS20, CFM, Engine Alliance, GE Aviation C04-289, Honeywell, Messier-Dowty PCS-2621, Pratt & Whitney PMC 1465, Rolls-Royce CSS/OMat, Safran In-1500, Spirit AeroSystems, United Airlines
<b>CleanSafe 686</b>	Aqueous solution for ultrasonic cleaning equipment.	ASTM F-484, F-519, F-945 (10%), F-1111 (10%)
<b>LENIUM™ GS</b>	Vapor degreasing solution based on stabilized n-Propyl Bromide (nPB).	Bell Helicopter, Boeing BAC 5408, Embraer, Lockheed-Martin EMAP, Messier-Dowty, Praxair, Safran In-1500, Scott Aviation, UTAS LGPS 1400
<b>LENIUM FHD</b>	Vapor degreasing solution based on fluorinated halogens. Low-toxicity.	Boeing BAC 5408/BAC 5750, Boeing D6-17487, Douglas CSD #1, Lockheed-Martin EMAP, Rolls-Royce OMat, Safran Power Systems
<b>BIOACT™ 280 &amp; BIOACT 280E</b>	Bio-based cleaner for masking wax and fixturing compounds. 18-24+ month bath life.	Boeing D6-17487, CFM, GE Aviation, Honeywell, IAE, Pratt & Whitney PMC 8913, Rolls-Royce CSS/OMat
<b>AEROWAX™ HT</b>	High melt point masking wax used for selective plating operations. 180-190°F (82-88°C) melt point range.	
<b>AXAREL™ 56</b>	Water-rinsible solvent cleaner for heated immersion equipment. Removes greases, heavy soils.	Boeing BAC 5200 & BAC 5763, GE Aviation, Messier-Dowty

Please contact a Vantage sales professional for a detailed list of our aerospace approvals and conformance test data.



## MANUAL & SOLVENT CLEANERS

Product	Description	Approvals & Conformance
<b>BIOACT 105 &amp; BIOACT 105 Wipes</b>	Fast drying cleaner used to replace isopropyl alcohol (IPA), acetone, methyl ethyl ketone (MEK) for general purpose degreasing and surface preparation. Low EHS impact.	Airbus AIMS 09-00-002, Bell Helicopter, Boeing D6-17487, Douglas CSD #1, Bombardier BAPS 180-009 General & Q400 AMM, CFM, GE Aviation, Gulfstream, Honeywell, Pratt & Whitney PMC 8929, Rolls-Royce CSS/OMat, SAE AMS 3167 QPL, AMS 1526, AMS 3819 (BIOACT 105 Wipes)
<b>BIOACT 108</b>	Solvent cleaner for Corrosion Inhibiting Compounds (CICs) e.g. Cor-ban 23, ARDROX® AV-8. Also removes hydraulic fluids e.g. Skydrol®, adhesive residues and other soils.	Airbus AIMS 09-00-002, Boeing BAC 5750, Boeing BAC 5355, Boeing D6-17487, Douglas CSD #1, AMS 1526C
<b>BIOACT 145</b>	Non-citrus solvent cleaner for oils, greases, hydraulic fluids, CICs. Flash point above 140°F (60°C). Suited for confined areas such as bilges.	Boeing D6-17487, Douglas CSD #1, Gulfstream
<b>AXAREL 1000</b>	MIL-PRF-680 Type I solvent. Good dry times. Essentially no odor.	MIL-PRF-680 Type I, Airbus CML, Boeing BAC 5750, Honeywell, Lockheed-Martin, Pratt & Whitney, United Airlines
<b>AXAREL 2000</b>	MIL-PRF-680 Type II solvent. Essentially no odor. Flash point above 140°F (60°C). Used for manual cleaning and in solvent parts washing basins.	MIL-PRF-680 Type II, Airbus CML, Boeing BAC 5750, Honeywell, Lockheed-Martin, Messier-Bugatti, Pratt & Whitney, United Airlines, UTAS
<b>AXAREL 3000</b>	MIL-PRF-680 Type III. Very high flash point (>200°F/93°C) solvent used to remove greases, oils. May also be used in heated immersion tanks.	MIL-PRF-680 Type III, Airbus CML, Boeing BAC 5750, Honeywell, Lockheed-Martin, Messier-Bugatti, Pratt & Whitney, United Airlines, UTAS
<b>AXAREL 4000</b>	MIL-PRF-680 Type IV solvent. Used when a higher flash point (>140°F/60°C) and strong solvency is desired. Mild citrus odor.	MIL-PRF-680 Type IV, Airbus CML, Boeing BAC 5750, Honeywell, Lockheed-Martin
<b>RE-ENTRY™ Prepsolv</b>	Citrus-based manual cleaner for adhesive residues, hydraulic fluids and CICs.	Boeing BAC 5750



## GAS PATH TURBINE ENGINE CLEANERS

Product	Description	Approvals & Conformance
<b>B&amp;B 3100</b>	Concentrated liquid compound for gas path, compressor and fuel nozzle cleaning in portable or stationary turbine engines.	MIL-C-85704
<b>B&amp;B TC-100</b>	Aqueous gas path cleaner for turbine engines. Commercial approvals.	Pratt & Whitney CPMC 79038, Boeing APU Prop-BN82T-C89-461, Boeing 747 AMM 49-11-00, Continental Airlines (now United Airlines)
<b>B&amp;B TC-100N-3</b>	Military qualified aqueous gas path cleaner for turbine engines. Qualified for both on and off-line cleaning of the compressor section.	MIL-PRF-85704 Type II & Type III, Pratt & Whitney PWA 36604 (AMS 5608)
<b>B&amp;B TC-100N-3-RTU</b>	Military qualified Ready-To-Use (RTU) aqueous gas path cleaner for turbine engines. Qualified for both on and off-line cleaning of the compressor section.	MIL-PRF-85704 Type II RTU & Type III RTU



## AVIONICS CLEANERS

Product	Description	Approvals & Conformance
<b>AXAREL 2200</b>	Non-citrus manual cleaner for removing flux residues from printed circuit boards (PCBs). Eliminates white residues.	
<b>BIOACT SC-10</b>	Manual cleaner for removing flux residues from PCBs. Eliminates white residues. Also removes some conformal coatings and adhesives.	
<b>BIOACT EC-7M</b>	Citrus-based electronics cleaner for manual and immersion defluxing.	
<b>BIOACT EC-78</b>	Aqueous defluxer for batch and inline spray cleaning equipment.	
<b>BIOACT EC-98</b>	Aqueous ultrasonic and immersion defluxer.	
<b>LENIUM ES</b>	Stabilized n-Propyl Bromide (nPB) solution designed to remove flux residues in vapor degreasing equipment.	Lockheed-Martin EMAP, Messier-Dowty, Safran In-1500, UTAS LGPS 1400

Please contact a Vantage sales professional for a detailed list of our aerospace approvals and conformance test data.

**COMPLETE SOLUTION.** For more than 35 years, Vantage has supplied MROs, airlines, and manufacturers the most complete range of approved chemical solutions on the market. From aircraft paint removers to manual hand-wipe cleaners to sophisticated parts washing solutions, Vantage's sales and technical professionals are trained to help customers select, evaluate and implement the most appropriate products and processes.

**TRUSTED BRANDS.** Vantage's chemical solutions are engineered to meet and exceed the aerospace industry's requirements for performance and materials compatibility. **AEROWAX™, AXAREL™, B&B™, BIOACT™, CleanSafe™, LENIUM™** and **RE-ENTRY™** are brands trusted and approved by leading manufacturers and repair facilities in over 30 countries worldwide.

**SOLVENT SUBSTITUTION & POLLUTION PREVENTION.** Safety, health and environmental responsibility are cornerstones of both our products and work practices. From reducing VOC emissions to minimizing exposures to lowering fire risk, we have experience helping customers find suitable replacements for **acetone, IPA, MEK, MPK, mineral spirits, trichloroethylene (TCE), perchloroethylene (PERC), methylene chloride (MeCl), HCFCs** and other hazardous solvents. Contact us today to learn how we can address your solvent substitution and pollution prevention initiatives.

## APPLICATIONS & PROCESSES

- Exterior aircraft and component paint removal
- Aircraft exterior wet washing
- Aircraft undercarriage and heavy-duty wet washing
- Aircraft polishing solutions; abrasive and non-abrasive
- Removing Corrosion Inhibiting Compounds (CICs) and hydraulic fluids from undercarriage, wheel well, bilge areas
- Temporary Protective Coating (TPC) removal
- Metal and composite cleaning and surface preparation
- Adhesive and sealant removal
- General purpose degreasing & component teardown cleaning
- Gas path turbine engine cleaning
- Removing masking wax during selective plating
- Cleaning before and after Nondestructive Testing (NDT)
- Appearance solutions for thrust stains and rubber scuffs
- Immersion, ultrasonic and spray parts washing
- Vapor degreasing of parts and assemblies
- Removing flux residues from Printed Circuit Boards (PCBs)
- Cleaning electrical wiring harnesses and components

## APPROVALS & CUSTOMERS

- Airbus
- American Airlines
- Bell Helicopter
- The Boeing Company
- Bombardier
- CFM International
- Embraer
- Engine Alliance
- Eurocopter
- GE Aviation
- Gulfstream Aerospace
- International Aero Engines
- Honeywell Aerospace
- Lockheed-Martin
- Lufthansa Technik
- Messier-Bugatti-Dowty
- Northrop Grumman
- Orbital ATK
- Pratt & Whitney
- Praxair
- Rolls-Royce
- Safran
- Scott Aviation
- Spirit AeroSystems
- Turbomeca
- United Airlines
- US Department of Defense
- UTAS UTC Aerospace Systems



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