



*Advanced Products for Advanced Cleaning*



## AQUEOUS CLEANING

**CleanSafe™ 787C** is a mild alkaline cleaning agent designed to operate in both spray-in-air and immersion cleaning equipment. Used at concentrations between 5-15%, CleanSafe 787C effectively removes a wide range of metalworking fluids, oil and grease. Safe for use on ferrous, non-ferrous and polymeric substrates, CleanSafe 787C provides ultra low-foaming properties under conditions of high soil loading.

**CleanSafe™ 787** is a mild alkaline cleaning agent designed to operate in spray-in-air cleaning equipment. Used at concentrations between 5-15%, CleanSafe 787 effectively removes a wide range of metalworking fluids, oil and grease. Safe for use on ferrous, non-ferrous and polymeric substrates, CleanSafe 787 is ultra low-foaming and contains no volatile organic compounds (VOC).

## SEMI-AQUEOUS CLEANING

**BIOACT® 280/280E/288** are water-rinsable, bio-based cleaners designed to operate in heated immersion applications. These products remove wax, lacquer, pitch, grease, oil, fixturing and buffing compounds and other high melting point soils. Developed for very high soil loading, BIOACT 280, 280E and 288 are effective alternatives to halogenated solvents, caustic cleaners, and petroleum-derived solvents.

**AXAREL® 56** is a water-rinsable, solvent cleaner designed to operate in heated immersion applications. Used at full concentration or as an emulsion, AXAREL 56 effectively removes cutting oil, grease, high melting point wax and buffing and lapping compounds. AXAREL 56 may be a suitable replacement for halogenated solvents and caustic cleaners.

## VAPOR DEGREASING

**LENIUM® ES/GS/XS** are highly stabilized solvent cleaners designed to operate in both open-top and vacuum vapor degreasers. These products effectively remove oil, grease, adhesive, resin, flux residue and various waxes. LENIUM ES, GS and XS are direct replacements for TCE, HCFC-141b, HCFC-225, hydrofluorocarbons, perchloroethylene, methylene chloride and other vapor degreasing solvents.

## SOLVENT CLEANING

**BIOACT® 105** is a blended solvent cleaner formulated for immersion and hand-wiping applications. Used at ambient temperatures, BIOACT 105 effectively removes adhesive, asphalt, coolant, fingerprints, grease, ink, mold release, oil, paint over-spray, silicone, tar and wax residue. BIOACT 105 is a direct replacement for Acetone, MEK, IPA, Toluene and other low flash point, flammable materials. It is available in bulk and low-lint, pre-saturated wipes.

**AXAREL® 4100/6100/9100** are blended solvent cleaners designed for immersion, hydrocarbon vacuum equipment and hand-wiping applications. These products effectively remove oil, grease, metalworking fluids and high melting point waxes. AXAREL 4100 and 6100 operate at ambient temperatures while AXAREL 9100 may be heated. All three products may be suitable alternatives for halogenated solvents and low flash point, flammable materials.

**RE-ENTRY® PrepSol™ and Plus 4** are ultra-high purity solvents designed for immersion and hand-wiping applications. Developed for high reliability cleaning, these solvents effectively remove a wide range of soils leaving extremely low non-volatile residue. RE-ENTRY PrepSol™ and Plus 4 are excellent replacements for Acetone, MEK, IPA, Toluene and other low flash point, flammable materials.



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# Aerospace Specifications

	Aqueous		Semi-Aqueous				Vapor Degreasers			Solvent Cleaning								
	CleanSafe 787C	CleanSafe 787	BIOACT 280	BIOACT 280E	AXAREL 288	AXAREL 52	AXAREL 56	LENIUM ES	LENIUM GS	LENIUM XS	BIOACT 105	BIOACT 121	BIOACT 145	AXAREL 4100	AXAREL 6100	AXAREL 9100	RE-ENTRY PrepSolv	RE-ENTRY PLUS 4

## Test Method Conformance

ARP 1755 Stock Loss Test	•			•					•									
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											•							
ASTM F-485 Effects on Unpainted Aircraft Surfaces								•	•	•								
ASTM F-502 Effects on Painted Aircraft Surfaces	•		•					•	•	•								
ASTM F 519 Hydrogen Embrittlement	•	•	•		•		•	•	•	•	•							
ASTM F-945 Stress-Corrosion of Titanium	•	•	•	•	•		•	•	•	•	•				•			
ASTM F-1110 Sandwich Corrosion	•	•	•				•	•	•	•	•			•				
ASTM F-1111 Low Embrittlement Cadmium Plate	•																	
MIL-DTL-83488d IVD Aluminum Plated Specimen	•																	
Wet Tape Adhesion Test	•																	

## Aerospace/Military Approvals

Bell Helicopter Bulletin No.: 1915 Solvents, Blended Organic									•				•					
Boeing BAC 5750 d-Limonene, 95% Min., Solvent Cleaning																•		
Boeing BAC 5200 Cleaning Anti-Friction Bearings, PSD 6-3						•												
Boeing BAC 5763 Type II Grade A Emulsion Cleaning/Degreasing	•	•				•												
Department of the Navy WS 26024d Terpene Solvent																•		
Department of the Navy WS 26145c Terpene Blend Solvent																		•
GEAE (Dallas, TX) Parts Cleaner & Plating Wax Remover			•															
GEAE Cleaning Method No. 23 Hand-Wipe Degreasing									•									
GEAE Alternate to Cleaning Method No. 1 Solvent Degreasing									•									
GEAE Alternate to Cleaning Method No. 22 LD Aqueous Cleaning									•									
Goodrich Actuation Sys. 981-100-020 Issue 4 Solvent Degreasing														•				
Goodrich Landing LGPS 1400 Solvent Cleaning/Degreasing							•											
GulfStream Aerospace GAS115H Solvent Cleaner/Degreaser									•		•							
Lockheed Martin (Fort Worth) Mechanical Section 1995																•		
MIL-PRF-680B Type III (QPL) Degreasing Solvent															•			
Pratt & Whitney SPOP 208, PMC 8929 Hand-Wiping Solvent									•									
Pratt & Whitney SPOP 37 Method 2 PMC 8913-A			•	•														
Pratt & Whitney MCL E-215 Titanium Stress Corrosion Test			•															
Rolls Royce CSS 254 Type A Semi-Aqueous Cleaning Fluids			•															
Rolls Royce CSS 255 Type A Non-Halogenated Organic Solvent			•						•			•	•	•				
Rolls Royce PLC Assessment (1993/1994)															•			
Scott Aviation SMP No 7700009 Breathing Equipment								•										
United Airlines Part # SOL3001-17, SOL3001-17TWL10X12									•									

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