PRODUCT TECHNICAL DATA SHEET

AquaVantage® 815 GD

IMMERSION & ULTRASONIC DETERGENT

AquaVantage 815 GD is developed for soil removal during the manufacturing or rebuilding of precision components in immersion, mildly agitated or ultrasonic cleaning processes. Mildly alkaline solution which cavitates in ultrasonics with unparalleled performance providing a water-break-free surface. Safe on virtually all metals. AquaVantage 815 GD is noncorrosive and will not stain metals.

PRODUCT BENEFITS AND PROPERTIES

Benefits

- RoHS Compliant
- Extends Bath Life – Reduces Costs
- In-Process Corrosion Control
- Transmits Ultrasonic Cavitation at All Temperatures – Significantly Improved Soil Removal
- Free Rinsing – Permits Improved Adhesion
- Reduced Cleaning Rework & Rejects
- Separates Oil Effectively for Improved Oil Removal

INDUSTRY APPROVALS & CONFORMANCE

- **Airbus:** A330 Maintenance Manual Task 32-11-00-220-843-A32-11-00 PB 601
- **Airbus:** AIPI 09-01-003 Approved Alkaline Cleaner
- **Airbus:** CML, 08AKB1
- **Airbus Industries:** Consumable Material List (CML) Item #11-024A
- **Airbus UK:** ABP 8-1290; Approved Alkaline Cleaner
- **American Airlines:** CPN4106223
- **American Eurocopter:** AEC QA-DCR/10-06/01
- **Anheuser Busch:** CTS #07979-000
- **Bell/Textron:** Material Bulletin 1608J
- **Boeing:** BAC 5749; Alkaline Cleaning (PSD 6-153)*
- **Boeing:** BAC 5753; Cleaning, Descaling, and Surface Preparation of Titanium and Titanium Alloys
- **Boeing:** BAC 5763; Emulsion Cleaning (PSD 6-62)*
- **Boeing:** HP 9-25; Degreasing
- **Boeing (McDonnell Douglas):** DPM 6373
- **Boeing (McDonnell Douglas):** DPS 9.341-1
- **Boeing (McDonnell Douglas):** P.S. 12024; Cleaning, Aqueous Immersion Degreasing
- **Bombardier Aerospace:** BAPS 180-040; Aqueous Degreasing
- **Bombardier Inc, Canadaair:** MPS 180-040; Aqueous Degreasing
- **Bombardier (de Havilland):** PPS 31.04, Issue 21, Aqueous Degreaser
- **Ford:** Tox #150887
- **General Dynamics, Electric Boat Division:** Contract No. N0024-95-C 2103
- **GE Aviation:** S-421
- **GE Aviation:** SPM GEK9250 (CF6, GE90, CF34, CT7) 70-21-22, Method 1
- **GE Aviation:** SPM CFM-TP SP2 (CFM56) 70-21-18
- **GE Aviation:** List of Alloy Compatible Cleaners
- **GM:** FID Number - 261545
- **Goodrich:** ML 21304; Brake & Wheel Components
- **Goodrich Aerostructures (Rohr):** RMS 1533
- **Goodrich Aerostructures (Rohr):** RPS 17.23 Rev. AE; Metal Prep for Adhesive Bonding
- **Honeywell (Allied Signal):** EMS 5317
- **Honeywell:** Component Maintenance Manual (Fuel controls)
- **Honeywell:** Standard Practices Manual
- **Hughes:** SCGPS 56039
- **Hughes:** 780202
- **International Aero Engines:** V2500 Overhaul Processes and Consumables Index; CoMat 01-487
- **Lockheed Martin:** EMAP G32.016, Version 28
- **Lockheed Martin:** LMA-PG006, Rev B
- **Lockheed Martin:** STP57-301 AC; Aluminum Cleaning
- **Meggitt Aircraft Braking Systems -** Fulfills Standard Practices Manual AP-842 (32-46-35) when used and maintained according to Brulin guidance
- **National Aeronautics and Space Administration:** Procedures for Cleaning of Systems and Equipment for Oxygen Service
- **National Stock Number:** 07 Size; 6850-01-392-8439
- **National Stock Number:** 55 Size; 6850-01-392-8430
- **Naval Shipyard:** File No. 0006902; Cleaning Respirators and Paint Equipment
- **Northrop:** C-24
- **Pratt & Whitney:** PMC 1437-1; PS 422 Alkali Cleaner, Immersion
- **Pratt & Whitney:** SPMC 184, SPOP 209 Immersion Tank (oper.1) and Spray-on/Rinse-off Cleaning (oper. 3); SPS 184
- **Rockwell:** LLD565-0013-001
- **Rolls Royce (Allison Engine):** EPS-345
- **Rolls-Royce:** CSS 204 Type A
- **Rolls Royce:** OMAT 1/24S
- **Safran:** PR-1500
- **Safran Aero Engines:** DMP 13-300
- **Sikorsky Aircraft (United Technologies):** SS 8423 Rev 5
- **SNECMA:** CFM56 Manual, CP2597
- **SNECMA:** DMP13-300 (Aluminum Alloys)
- **South Coast AQMD:** Certified as a Clean Air Solvent
- **Spirit AeroSystems:** SPS-107630 Emulsion Cleaning and Aqueous Degreasing

** Including BMS 8-276 substrate*

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TEST COMPLIANCE

- **ARP 1755A:** Stock Loss (Cat. 9)
- **ARP 1755B:** Stock Loss (Cat. 10)
- **ASTM F483:** Total Immersion Corrosion
- **ASTM F484:** Stress Crazing of Acrylic Plastics
- **ASTM F485:** Unpainted Aircraft Surfaces
- **ASTM F502:** Painted Aircraft Surfaces
- **ASTM F519:** Hydrogen Embrittlement (Type 1c)
- **ASTM F945:** Titanium Stress Corrosion (AMS 4916 & 4911 Alloys)
- **ASTM F1110:** Sandwich Corrosion
- **ASTM F1111:** Low-Embrittling Cadmium Plate
- **Boeing:** D6-17487 Rev. K; Exterior Cleaner
- **Boeing (McDonnell Douglas):** CSD 1; general Purpose Cleaner
- **Contains No Cyanides or Sulfides**
- **GE Aviation:** CT-882; Solvent Replacement
- **MIL STD 1330 Approved:** Pre-Cleaning of Breathable Oxygen Components
- **PWA 36604 Rev. D:** Determination of the Effect of Chemical Cleaners on Non-metallic Alloys (O-Rings)
- **PWA 36604 Rev. D:** Hot Corrosion Testing

TANK MAINTENANCE

Proper maintenance of your wash system will ensure the longest possible detergent bath life, the best parts cleaning performance, and the optimal assurance against part corrosion.

Brulin has developed Maintenance Guidelines for Aqueous Detergent Tanks, a comprehensive flow chart to illustrate the process, and a step-by-step video to guide you through.

CONCENTRATION VERIFICATION

Brulin Titration Kit (Prod. No. XTRKIT)	**Sample Size:**	5 mL
	Titrant:	1.0 N HCl Solution
	Indicator:	Bromophenol Blue (2 Drops)
	Concentration %:	Drops Titrant x 0.81
or	**Sample Size:**	10 mL
	Titrant:	1.0 N HCl Solution
	Indicator:	Bromophenol Blue (3 Drops)
	Concentration %:	mL Titrant x 0.42
Burette Test Method	**Sample Size:**	50 mL
	Titrant:	0.5 N HCl Solution
	pH Endpoint:	3.8
	Concentration %:	mL Titrant x 1.25

MATERIAL COMPATIBILITY

AquaVantage 815 GD is non-corrosive and non-staining to a wide variety of alloys. Some selected categories of materials compatible with AquaVantage 815 GD include*:

Ferrous Metals: Carbon Steel • Stainless Steel • Steel

Non-Ferrous Metals & Alloys: Aluminum • Cadmium Plating • Chrome Plating • Copper (Alloys & Plating)** • Hastelloy • Inconel • Magnesium & Magnesium Alloys • Monel • Ni-Cad Plating • Nickel, Nickel Alloys & Plating • Titanium & Titanium Alloys

Plastic & Composites: Acrylics • Epoxy Resin • High Density Polyethylene/HDPE • Nitrile Butadiene Rubber • Polypropylene/PP • Polyvinyl Chloride/PVC

Other: Glass • Painted Surfaces

SOILS

AquaVantage 815 GD removes a wide range of organic and inorganic soils. Some categories of soils that can be removed with AquaVantage 815 GD include*:

Buffing Compounds • Carbon • Coolants • Dirt (Particulate) • Fat • Flux • Grease • Inks • Oil (General, Cutting, Drawing Compounds, Forming, Honey, Hydrocarbon, Lubricants, Self- Emulsifying, Silicone/Greases, Sulfur/Chlorinated, Water-Soluble)

** Material compatibility should always be confirmed via testing with specific contaminants under specific cleaning conditions.*

***Minor discoloration may occur under certain conditions.*

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USE RECOMMENDATIONS

System	Immersion & Ultrasonic Tanks
Dilution	5-30%, typically used at 10% • **LOX/Breathable Oxygen:** 7% to 12% • **Metal Finishing:** 7% to 25% • **Repair & Overhaul:** 7% to 30%
Cleaning Temperature Range	130-170°F (54-77°C), typically used at 140°-150°F (60-66°C)
Cleaning Duration	1-30 minutes: typical parts are clean in 3-10 minutes
Rinse Temperature	A heated rinse may improve overall performance. Some OEM process specifications may require a heated rinse.
Rinse Water Quality	Recommended conductivity of final rinse water: • **Ultra-Clean Applications:** ≤ 50 microsiemens • **Precision Cleaning:** ≤ 500 microsiemens • **Gross Cleaning:** > 500 microsiemens

To avoid spotting, it is best if the parts remain wet between processing stages.

TYPICAL CHEMICAL CHARACTERISTICS

Physical Form	Liquid
Color	Blue-Green
Fragrance	Mild
Viscocity	Water-thin
Weight	8.96 lbs/gal (1.074 g/ml)
pH of Concentrate	12.0
Flash Point (PMCC)	None to boiling
Foaming Tendency	High
Shelf Life	36 Months

SHIPPING, STORAGE, DISPOSAL & PREVENTION

Please refer to the Safety Data Sheet for shipping, storage, disposal and prevention guidance.

AVAILABILITY

- 1 Gal (3.8L)
- 2.5 Gal (9.47L)
- 5 Gal (19L)
- 55 Gal (208L)
- 275 Gal Tote (1,041L)

Scan for product details

Product No. 301007