PRODUCT TECHNICAL DATA SHEET

AquaVantage® 815 GD

The Cleaning Standard In Immersion & Ultrasonic Detergents

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:** AIPI 09-01-003 Approved Alkaline Cleaner
- **Airbus: CML, 08AKB1**
- **Airbus UK:** ABP 8-1290; Approved Alkaline Cleaner
- **American Eurocopter:** AEC QA-DCR/10-06/01
- **Boeing:** BAC 5749; Alkaline Cleaning*
- **Boeing:** BAC 5753; Cleaning, Descaling, and Surface Preparation of Titanium and Titanium Alloys
- **Boeing:** BAC 5763; Emulsion Cleaning*
- **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 (de Havilland):** PPS 31.04, Issue 21, Aqueous Degreaser
- **Ford:** Tox #150887
- **UTC Aerospace Systems (Rohr):** ML 21304; Brake & Wheel Components
- **UTC Aerospace Systems (Rohr):** RMS 1533
- **UTC Aerospace Systems (Rohr):** RPS 17.23 Rev. AE; Metal Prep for Adhesive Bonding
- **Honeywell:** Component Maintenance Manual (Fuel controls)
- **Honeywell:** Standard Practices Manual
- **International Aero Engines:** V2500 Overhaul Processes and Consumables Index; CoMat 01-487
- **Lockheed Martin:** EPS G32.016
- **Lockheed Martin:** LMA-PG006, Rev B
- **Lockheed Martin:** STP-57301; Aluminum Cleaning
- **Meggitt Aircraft Braking Systems -** Fulfills Standard Practices Manual AP-842 (32-46-35) when used and maintained according to BHC guidance.
- **National Aeronautics and Space Administration:** Procedures for Cleaning of Systems and Equipment for Oxygen Service
- **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
- **Rolls-Royce:** CSS 204 Type A
- **Rolls Royce:** OMAT 1/24S
- **Safran:** PR-1500
- **Sikorsky Aircraft (United Technologies):** SS 8423 Rev 5
- **SNECMA:** CFM56 Manual, CP2597
- **Safran Aero Engines:** DMP 13-300

TEST COMPLIANCE

- **ARP 1755B:** Stock Loss (Cat.10)
- **ASTM F-483:** Total Immersion Corrosion
- **ASTM F-484:** Stress Crazing of Acrylic Plastics
- **ASTM F-485:** Unpainted Aircraft Surfaces
- **ASTM F-502:** Painted Aircraft Surfaces
- **ASTM F-519:** Hydrogen Embrittlement (Type 1c)
- **ASTM F-945:** Titanium Stress Corrosion (AMS 4916 & 4911 Alloys)
- **ASTM F-1110:** Sandwich Corrosion
- **ASTM F-1111:** Low-Embrittling Cadmium Plate
- **Contains No Cyanides or Sulfides**
- **GE Aviation:** CT-882; Solvent Replacement
- **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
Plastics & 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.

USE RECOMMENDATIONS

System	Immersion & Ultrasonic Tanks
Dilution	7-30%, 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
Odor/Fragrance	Mild
Viscosity	Water-thin
Weight	8.96 lbs/gal (1.074 g/ml)
pH of Concentrate	12.0
Flash Point (PMCC)	None to boiling
Foaming Tendency	Moderate to high

SHIPPING, STORAGE, DISPOSAL & PREVENTION

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

AVAILABILITY

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

Authorised Brulin Distributor for Australia and New Zealand`

KLEENTEK
Advanced Cleaning Technologies

Product #: 301007