

# 815 GD-NF



#### The Cleaning Standard in APE/NPE-Free Immersion & Ultrasonic Detergents



APE/NPE/VOC-free aqueous degreasing chemistry developed for soil removal during the manufacturing or rebuilding of Aerospace 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-NF is non-corrosive and will not stain metals.

#### **Benefits**

- Independent Performance Documentation – Proven Cleaning Results
- Water-Based, Dilutable Formulation Dilutes Specific to Your Application
- Extends Bath Life Creates Labor Savings & Reduces Costs
- In-Process Corrosion Control
- Transmits Ultrasonic Cavitation at All Temperatures
- Free Rinsing Cleaner Parts & Simplified Cleaning
- Reduced Cleaning Rework & Rejects
- No Hazardous Ingredients as Listed on the SDS (w/OSHA PELS)
- Separates Oil Effectively for Easy Skimming
- RoHS Compliant
- APE/NPE/VOC-Free

#### **Industry Approvals & Conformance**

- Airbus: CML, 08AKB1
- ASTM F-483: Total Immersion Corrosion
- ASTM F-519: Hydrogen Embrittlement (Type 1c Bare)
- BAE Systems: Process Specification R10-6024
- Boeing: BAC 5749; Alkaline Cleaning
- Boeing: BAC 5763; Emulsion Cleaning
- Bombardier Aerospace: BAPS 180-040
- Bombardier (de Havilland): PPS 31.04, Issue 21, Aqueous Degreaser
- UTC Aerospace Systems (Rohr): GSIL 2006-01
- **Meggitt Aircraft Braking Systems** Fulfills Standard Practices Manual AP-842 (32-46-35) when used and maintained according to BHC guidance.
- Messier-Dowty: PCS-2621 (Pending)
- National Stock Number: 05 Size; 6850-01-606-8428
- National Stock Number: 55 Size; 6850-01-606-8434
- Rolls-Royce: OMAT 1/24S
- Safran: PR-1500
- Safran Group: CMM 24-30-09
- Safran Aero Engines: DMP 13-300
- USDA A1

#### **Test Compliance**

- ASTM F-1110: Sandwich Corrosion
- ASTM F-945: Titanium Stress Corrosion (AMS 4916 & 4911 Alloys)

#### TANK MAINTENANCE

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

BHC 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 for AquaVantage 815 GD-NF**

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       Indicator:         Sample Size:       10 mL         Titrant:       1.0 N HCl Solution         Indicator:       Bromophenol Blue (3 Drops)         Concentration %:       Drops Titrant x 0.42			
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Indicator:       Drops)         Concentration %:       Drops Titrant x 0.81         or       Image: Concentration of the second se	Titrant:	1.0 N HCI Solution	
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Drops)	Titrant:	1.0 N HCI Solution	
Concentration %: Drops Titrant x 0.42	Indicator:		
	Concentration %:	Drops Titrant x 0.42	

Burette Test Method		
Sample Size:	50 mL	
Titrant:	0.5 N HCI	
Thu ant.	Solution	
pH Endpoint:	3.80	
Concentration	mL's Titrant	
%:	x 1.25	

Brulin Tank Maintenance



## AquaVantage® 815 GD-NF

#### Performance Properties Substrates

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

Ferrous Metals: Carbon Steel • Stainless Steel • Steel

- Non-Ferrous Metals & Alloys: Aluminum Cadmium Plating Chrome Plating • Copper (Alloys & Plating)\*\* • Hastelloy • Inconel • 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-NF removes a wide range of organic and inorganic soils. Some categories of soils that can be removed with AquaVantage 815 GD-NF 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	5-30%, typically used at 10%	
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	ty 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.		

#### Authorized Representative:

#### **Typical Chemical Characteristics**

Physical Form	Liquid
Color	Blue
Fragrance	Mild
Viscosity	Water-thin
Weight	8.94 lbs/gal (1.0710 g/ml)
pH of Concentrate	12.0
pH of Working Solution	11.5
Flash Point (PMCC)	None to boiling
Foaming Tendency	Moderate to high
Calculated V.O.C	0% (0 g/l)
Freeze/Thaw	Reusable after thawing & remixing

Shipping: Non-hazardous for shipping by ground, sea, or air in all package sizes.

**Storage:** Store in well-ventilated areas at temperatures between 40-110°F (4-43°C). The recommended shelf life of this product is 24 months.

**Disposal:** Dispose of waste and residues in accordance with local authority requirements. Please recycle container.

**Prevention:** Wear safety glasses with side shields (or goggles). Wash hands thoroughly after handling.

#### Product Number: 301017 (Formerly Formula 815 GD-NF)

Availability:

- 5 Gal (19L)
- 55 Gal (208L)
- 275 Gal Tote (1,041L)
- Bulk up to 5,000 Gal (~19,000L)

BHC offers a full line of Brulin-branded industrial chemicals for industries such as Space, Aerospace, Transportation, Medical and Optics.



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