AquaVantage® 815 GD-NF

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

Space & Aerospace





Precision Metal





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
- BAE Systems: Process Specification R10-6024
- Boeing: BAC 5749; Alkaline Cleaning
- Boeing: BAC 5763; Emulsion Cleaning
- Bombardier (de Havilland): PPS 31.04, Issue 21, Aqueous Degreaser
- UTC Aerospace Systems (Rohr): GSIL 2006-01
- 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
- SNECMA: DMP13-300 (Aluminum Alloys)
- 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 | | |
| Sample Size: | 10 mL | |
| Titrant: | 1.0 N HCl Solution | |
| Indicator: | Bromophenol Blue (3 Drops) | |
| Concentration %: | Drops Titrant x 0.42 | |

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



Aqua**V**antage®

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 | 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, Automotive, Precision Metal, Medical and Optics.



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