



Space & Aerospace

● = Conformance/
Effectiveness

●+ = Conformance/
Effectiveness Plus

Immersion & Ultrasonic

**AquaVantage
815 GD**
(AquaVantage 815 GD-NF)

**AquaVantage
3843 GD**

SOILS*	AquaVantage 815 GD	AquaVantage 3843 GD
Buffing Compounds (Melt range up to 160°F/71°C)	●	●
Carbon	●	●
Coolants	●+	●
Dirt (Particulate)	●+	●+
Fat	●+	●+
Grease	●	●+
Inks	●	●
Oil (General)	●+	●+
- Cutting	●+	●+
- Drawing Compounds	●+	●+
- Fingerprints	●+	●+
- Forming	●+	●+
- Honey	●	●+
- Hydrocarbon	●+	●
- Lubricants	●+	●+
- Self Emulsifying	●	●+
- Silicone/Greases	●	●+
- Sulfur/Chlorinated	●	●+
- Water Soluble	●+	●+
Tar & Pitch		
Waxes (Melt range up to 160°F/71°C)		

SUBSTRATES*		
Steel	●+	●+
Non-Ferrous Metals	Aluminum	●+
	Cadmium Plating	●
	Chrome Plating	●
	Copper (Alloys & Plating)	●
	Magnesium & Magnesium Alloys	●
	Titanium & Titanium Plating	●+
	Zinc & Galvanized	●
Plastics & Composites	●	●
Glass	●	●

SYSTEM		
Immersion Tanks	●+	●+
Ultrasonic Tanks	●+	●+
Turbulation		●+
Cabinet/Inline Spray		●+

TYPICAL CHEMICAL CHARACTERISTICS		
Long Solution Life	●+	●+
pH of Concentrate	12.0	11.7
pH of Working Solution	11.5	11.1 @ 10% v/v
Flash Point	None	None to boiling
Foaming Tendency: Moderate - High	High	Low
Calculated V.O.C.	0.1% (1.1 g/l) (0% (0 g/l))	0% (0g/L)
Storage Temperature: 40-110°F (4-43°C)	✓	✓
Shelf Life (Months)	24	24

CLEANING RANGES		
Dilution Range	5-30%	5-20%
Typical Dilution	7-10%	7-10%
Temperature Range	130-170°F (54-77°C)	130-180°F (54-82°C)
Typical Temperature	140-150°F (60-66°C)	140-150°F (60-66°C)

Product Descriptions

AquaVantage 815 GD

The Cleaning Standard in Immersion & Ultrasonic Detergents

- Mildly alkaline solution which cavitates in ultrasonics with unparalleled performance providing a water break free surface.
- Use during the manufacturing or rebuild of Aerospace components in immersion, mildly agitated or ultrasonic cleaning processes.

AquaVantage 815 GD-NF** APE/NPE-Free Alternative

AquaVantage 3843 GD High Performance, Phosphate-Free Immersion & Ultrasonic Detergent

- APE/NPE/VOC-free, non-phosphated solution research-developed to remove straight oils that are difficult to remove.
- A mildly alkaline solution which cavitates in ultrasonics with unparalleled performance.
- Typically used in immersion, highly turbulated or ultrasonic cleaning processes – also non-foaming in spray wash applications.

**Version fulfills requirements for EU/REACH, Canada and other jurisdictions where NPE is restricted.

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



Precision Metal

● = Conformance/
Effectiveness

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Immersion & Ultrasonic

SOILS*	AquaVantage HTD	AquaVantage 815 GD-NF	AquaVantage 815 QR-NF
Buffing Compounds (Melt range up to 160°F/71°C)	●	●	●+
Carbon		●	●+
Coolants	●+	●+	●+
Dirt (Particulate)	●+	●+	●+
Fat		●+	●+
Grease	●	●	●+
Inks		●	●
Oil (General)	●	●+	●+
- Cutting	●+	●+	●+
- Drawing Compounds	●+	●+	●+
- Fingerprints	●	●	●
- Forming	●+	●+	●+
- Honey		●	●
- Hydrocarbon	●+	●+	●+
- Lubricants	●+	●+	●+
- Self Emulsifying	●	●	●
- Silicone/Greases		●	●
- Sulfur/Chlorinated		●	●
- Water Soluble	●+	●+	●+
Tar & Pitch			●
Waxes (Melt range up to 160°F/71°C)			●

SUBSTRATES*	AquaVantage HTD	AquaVantage 815 GD-NF	AquaVantage 815 QR-NF
Steel	●+	●+	●+
Aluminum	●+	●+	●
Cadmium Plating	●	●	
Chrome Plating	●	●	●
Copper (Alloys & Plating)	●+	●	
Magnesium & Magnesium Alloys		●	●
Titanium & Titanium Plating	●	●+	●
Zinc & Galvanized	●		
Plastics & Composites	●	●	
Glass	●+	●	

SYSTEM	AquaVantage HTD	AquaVantage 815 GD-NF	AquaVantage 815 QR-NF
Immersion Tanks	●+	●+	●+
Ultrasonic Tanks	●+	●+	●+
Turbulation	●	●	●
Cabinet/Inline Spray			

TYPICAL CHEMICAL CHARACTERISTICS	AquaVantage HTD	AquaVantage 815 GD-NF	AquaVantage 815 QR-NF
Long Solution Life	●	●+	●+
pH of Concentrate	8.3	12.0	12.5
pH of Working Solution	8.1	11.5	11.6
Flash Point	None	None	None
Foaming Tendency: Moderate - High	High	High	High
Calculated V.O.C.	0% (0 g/L)	0.1% (1.1 g/l) (0% (0 g/l))	8.4% (89.6 g/l) (7.49% (79.6 g/L))
Storage Temperature: 40-110°F (4-43°C)	✓	✓	✓
Shelf Life (Months)	12	24	24

CLEANING RANGES	AquaVantage HTD	AquaVantage 815 GD-NF	AquaVantage 815 QR-NF
Dilution Range	5-30%	5-30%	1-15%
Typical Dilution	10%	10%	10%
Temperature Range	130-170°F (54-77°C)	130-170°F (54-77°C)	130-170°F (54-77°C)
Typical Temperature	140-150°F (60-66°C)	140-150°F (60-66°C)	140-150°F (60-66°C)

Product Descriptions

AquaVantage HTD** pH-Neutral Immersion Ultrasonic Detergent with no silicates, phosphates or APE/NPE

- Neutral pH formulation provides effective cleaning for a wide range of industries.
- A safer cleaner for applications where APE/NPE's, phosphates, and silicates are not tolerated.

AquaVantage 815 GD-NF** The Cleaning Standard in APE/ NPE-Free Immersion & Ultrasonic Detergents

- Mildly alkaline solution which cavitates in ultrasonics with unparalleled performance providing a water break-free surface.
- Use during the manufacturing of components in immersion, mildly agitated or ultrasonic cleaning processes.

AquaVantage 815 QR-NF** Heavy-Duty, APE/NPE-Free Immersion & Ultrasonic Detergent

- Provides aggressive cleaning for the heaviest soils found in a wide range of industries.
- Ideal APE/NPE-free detergent for heavy-duty immersion cleaning processes. Ideal for rebuild applications.

**Version fulfills requirements for EU/REACH, Canada and other jurisdictions where NPE is restricted.

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