



AquaVantage® Passivation

Citric Acid Passivation

PRODUCT BENEFITS AND PROPERTIES

AquaVantage® Passivation is a dilutable citric acid formulation specifically developed for the passivation of stainless-steel parts. AquaVantage Passivation conforms to multiple aerospace specifications and is specifically formulated for use in the Space, Aerospace, and Medical manufacturing industries. This product has been designed to be used in conjunction with Brulin brand immersion or ultrasonic detergents.

Benefits

- Conforms to AMS 2700 Method 2, ASTM 380 & 967
- Compatible with a wide range of stainless-steel alloys
- Fast acting (effective in as little as 4 minutes)
- Highly dilutable formula
- Effective in a wide range of bath temperatures

TANK MAINTENANCE

This product requires special test methods for proper tank maintenance. Contact your Brulin process specialist for more information.

MATERIAL COMPATIBILITY

AquaVantage Passivation is suitable for use on a wide variety of alloys. Some selected categories of materials compatible with AquaVantage Passivation include*:

Corrosion resistant steel alloys including: Austenitic, Ferritic, Free Machining, Precipitated Hardened, and Martensitic grades. This includes typical grades of 303, 304, 308, 311, 316, 17-4, and 420, among others.

For complete list see table 4 in AMS 2700.

SOILS

AquaVantage Passivation is not a detergent for soil removal. Contact your Brulin process specialist for recommendations for the proper AquaVantage detergent.

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

USE RECOMMENDATIONS

System	Immersion or Ultrasonic
Dilution	4.0 – 10.0% WT/WT (4.05% – 10.12% VOL/VOL)
Cleaning Temperature Range	70° – 160°F, (21° – 71°C)
Duration in Solution	Min. 4-minutes at 140°F (60°C) Min. 10-minutes at 120° – 140°F, (49° – 60°C) Min. 20-minutes at 100° – 119°F (38° – 48°C) Min. 30-minutes at temp. below 100°F (38°C)
Rinse Instructions	Thoroughly rinse parts immediately after removal from the passivation solution. Final rinse should be carried out in clean water.
Rinse Water Quality	Use of de-ionized water for the rinse is recommended.
Post-Passivation Inspection	Once passivating is finished, and the parts are rinsed and dried, they should be completely free of surface defects. Pitting, etching, hazing and staining would all be indicative of the possible presence of free iron. Post-passivation, parts can be tested for free iron as required by the specifications or purchaser to verify passivation success.

TYPICAL CHEMICAL CHARACTERISTICS

Physical Form	Liquid
Color	Clear/Slight Yellow
Odor/Fragrance	None
Viscosity	Water thin (~20 Cps)
Weight	10.36 lb/gal (1.2411 g/ml)
pH of Concentrate	< 1
Flash Point (PMCC)	None to boiling
Foaming Tendency	None

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)

Product #: 304039