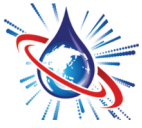




# FORMULA 319

Citric Acid Passivation

## Product Description



**FORMULA 319** is a non-corrosive, non-oxidizing, environmentally friendly acid solution for passivating stainless steel. Studies have shown that the 'natural' acids in FORMULA 319 are as effective as typical passivation products containing nitric acid in restoring a protective chromium oxide film to the surface of all grades of stainless steel.

## Uses & Directions



Use FORMULA 319 after a 'stripping' cleaning to passivate tanks and other vessels, vats, valves, and other items needing a protective chromium oxide film. Use of this product will conform to *ASTM A967*. Works well at ambient temperatures, but may be heated up to 160 ° F (71°C) for faster results. Acceptable for immersion use in ultrasonic tanks, as well as fogging inside any stainless steel vessel, such as Food Grade tank containers, road tankers, and IBC's.

Dilute one part FORMULA 319 with 8 parts water. Use with fogging device, or re-circulate with portable spinner.

If heated to 160 ° F (71°C), dilute with 14 parts water.

## Health Hazard Summary



Severely irritating and may cause temporary blurring of vision and temporary damage. Prolonged contact with skin may cause severe skin irritation and possible burns. Causes irritation to mouth, throat, esophagus, and gastrointestinal system. May cause gastrointestinal discomfort if ingested, including nausea, vomiting, diarrhea, etc. Mists, sprays, or vapor can be irritating to eyes and respiratory tract.

## Specifications



Appearance .....	Clear, water white liquid
pH (at use dilution).....	4
Specific Gravity .....	1.24
Flashpoint.....	None
Viscosity .....	Low
Dilution in water.....	7-14%
Operating Temperature.....	Ambient*
Solubility in water.....	Excellent
Rinseability.....	Excellent

\* ~ 160°F (71°C)

## Package & Handling



55 gallon drum JCRE20923

# SDS



HMIS	
HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X