



## TECHNICAL BULLETIN

### G-CLEAN 247

### PASSIVATING AGENT FOR STAINLESS STEELS (CITRIC ACID)

#### 1) PRODUCT DESCRIPTION

**G-CLEAN 247** is a very efficient water and citric acid based passivating agent that dissolves free iron ions on all stainless steel surfaces. This product is developed to meet ASTM A 967 – 05 passivating standards. **G-CLEAN 247** is very efficient at cleaning inorganic contaminants such as rust & oxidation on all metals. It is compatible with almost any surface : metals, plastics, concrete, masonry and glass. **G-CLEAN 247** is normally used pure (no dilution) for the passivation of stainless steel parts.

#### Typical Applications

Stainless steel passivation  
Rust cleaning  
Parts cleaning by soaking

#### Concentration of G-CLEAN 247 in water

pure  
pure – 1 :1  
1:1 – 1:4

#### 2) ADVANTAGES

Based on an elaborate blend of organic acids, surfactants and corrosion inhibitors, **G-CLEAN 247** has a very low toxicity and advantageously replaces the nitric acid based passivating agents.

#### Particularities:

- Dissolves the free iron ions
- Highly effective
- Water & citric acid based
- Biodegradable
- 0% VOC (Volatile Organic Components)
- Efficient on all stainless steel types
- Low toxicity



#### 3) PHYSICAL PROPERTIES

Appearance.....	brown-orange liquid
Odour.....	.... lemon slight odour
pH (Sol. 1%).....	2.0 – 3.0
Rinseability.....	.....excellent
Flash point.....	.....Not Applicable
Specific gravity.....	.....1.15 – 1.30
VOC (Volatile Organic Components).....	.....0%
Biodegradability.....	.....good

#### **4) PROCEDURE**

*Note: For best results, when using G-CLEAN 247 on heavy contamination, follow these instructions:*

- *Mechanical agitation with a brush, a rag or other will greatly improve the cleaning efficiency*
- *Use warm or hot water when rinsing or diluting G-CLEAN 247 if applicable.*

#### **STAINLESS STEEL PASSIVATING**

Note : Depending on stainless steel type, time of contact and maximum temperature vary considerably. Consult your representative for a detailed procedure.

- Degrease the surface to be passivated with an alkaline cleaner such as G-MAX 328
- Apply G-CLEAN 247 on the surface to be passivated for 30 to 120 minutes at room temperature (23°C), or according to the recommendations of your representative (the martensitic steels are more sensitive to acid cleaning than the austenitic steels). Make sure that the surface remains sufficiently wet with G-CLEAN 247 during the whole passivation process.
- Rinse well with water
- After the passivation with G-CLEAN 247, neutralize the surface with an alkaline cleaner such as G-MAX 328 (let dwell a minimum of 10 to 15 minutes)
- Proceed to a passivation test as per ASTM A 967-05 to confirm passivation.

#### **RUST CLEANING**

- Apply pure or diluted on the surface to clean (see recommended dilutions)
- Let work for 10 to 20 minutes
- Use mechanical agitation (brush, rag or other) if required
- Rinse with water.

#### **5) PERSONAL PROTECTION**

When using **G-CLEAN 247**, it is recommended to wear the following safety equipments:

- Safety glasses or goggles
- Chemical resistant gloves
- Chemical protecting suit (if used in a shower when passivating big parts)

## **6) STORAGE**

Store **G-CLEAN 247** at a controlled temperature of 0° C to 30° C (50° F to 104° F) in a plastic container. The product could freeze below 0°C (32°F). Store in a closed plastic container when not in use. The shelf life of the product has been determined to be three ( 3 ) years.

## **7) PACKAGING**

- Pails (20 Litres/ 5 Gallons)
- Drums (205 Litres / 55 Gallons)
- Tote tanks (1200 Litres / 317 Gallons)

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