

NuGenTec EP 316

Technical Data Sheet

Medical Device Electropolishing Process Chemical

Medical device electropolishing solution for stainless steels, Titanium, Titanium Alloys such as Nickel-Titanium (NiTi) and Ti6Al4V, Ti-Au, Cobalt-Chrome, etc.

Description:

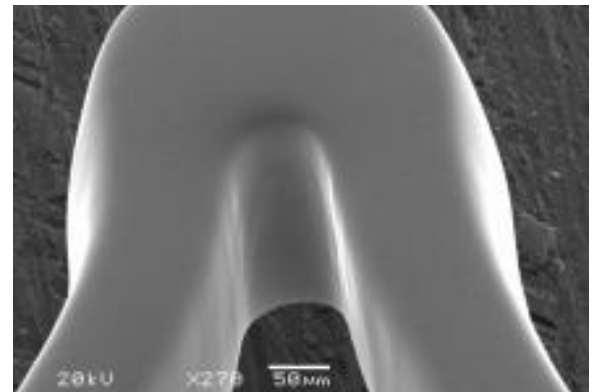
NuGeneration Technologies' NuGenTec Ep 316 is an electropolishing solution that removes metal from part surfaces to create a unilateral pattern that is stress-free, microscopically smooth and often highly reflective. In addition, improved corrosion resistance and passivity are achieved on many ferrous and some non-ferrous alloys. This process is used for micro- and macro-deburring, as the reverse plating process *electropolishing) removes metal ions from the high points on the metal surface without etching. Unlike conventional mechanical finishing systems, **NuGenTec EP 316** does not smear, bend, stress or fracture the crystalline metal surface to achieve smoothness and/or luster.

NuGenTec Ep 316 is non-flammable and highly conductive, allowing for safer, more efficient electropolishing that does not

require cryogenic cooling.

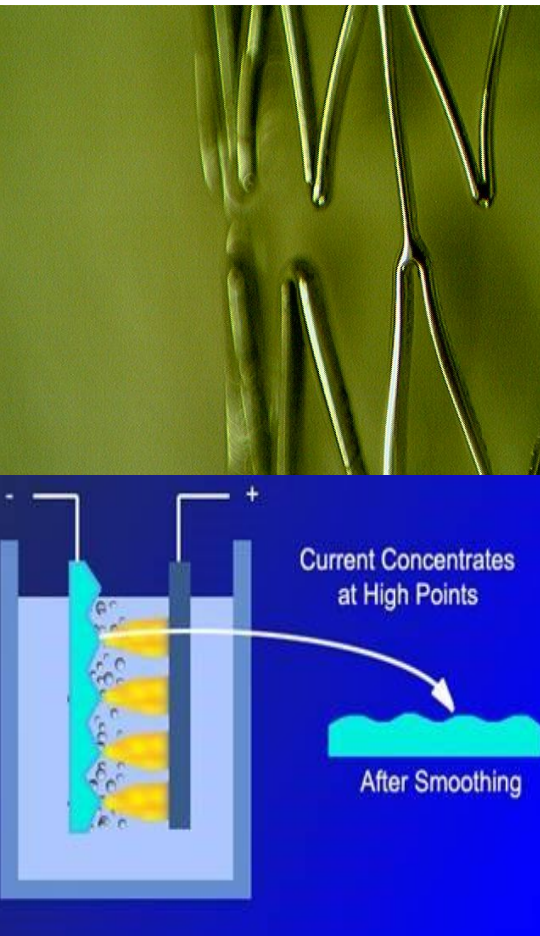
Directions for Use:

1. Clean using specially formulated alkaline cleaner (**NuGenTec NuWet DM41** for ferrous alloys, or **NuGenTec NuKlean NiTi** for Titanium alloys), and rinse with DI Water.
2. Deoxidize/de-scale/acid pickle (**NuGenTec NuBrite C 35, 50** or **NuWet DS 105** for ferrous alloys, or **NuEtch NiTi** for Titanium alloys NiTi and Ti6Al4V, or **NuEtch Ti-Au** for Titanium-Gold alloy), and rinse with DI Water.
3. Rinse part in Isopropyl Alcohol (IPA) to remove any water from rinse step, and to prevent water drag-in.
4. Electropolish with **NuGenTec EP 316** and rinse with DI Water.
5. Nitric acid dip for passivation, and rinse with DI Water (passivation is an optional step, as oxide layer will reform naturally).



Product Benefits

- Effective on Ferrous, non-ferrous and Titanium alloys such as NiTi, Ti6Al4V and Ti-Au
- Non-flammable and high-loading.
- High conductivity allows for lower current and voltage to be used.



Physical Properties

| | |
|-------------------|----------------|
| Use concentration | 100% by volume |
| Bulk Density | 13.3 lbs/gal |
| Operating Temps | 40 °F - 120 °F |
| pH, Concentrate | < 1.0 |
| pH, @5% | 1.2 |
| VOC (Concentrate) | 0 g/L |
| Flash Point | None |
| Chelates | No |
| Soluble in water | Complete |
| Fuming | No |
| Corrosive | Yes |

Availability: 5-gallon and 55-gallon containers, 275-gallon totes and bulk tankers.

Shipment: UN3264 Corrosive liquid, acidic, inorganic, n.o.s (Phosphoric Acid, Sulfuric Acid), 8, PG II, ERG #154

Storage: Keep out of direct sunlight. Keep from freezing. Store between 40 °F - 120 °F.

Disposal: Dispose of in accordance with local, state, and federal regulations. For assistance with disposal contact NuGeneration Technologies at 888-99-NuGen or email: info@nugentec.com.

Regulatory: This product is classified and labeled according to the Globally Harmonized System (GHS).

EMERGENCY OVERVIEW:

This product may cause burns to the skin and eyes. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause cancer. May damage fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure. May cause an allergic skin reaction.

SAFETY:

Please make sure you have read and understand the product label and SDS before using this product. Avoid breathing vapors, spray or mists. Use only with adequate ventilation. Wash thoroughly after handling. Observe label precautions.

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