



MATERION

DESIGN GUIDE

# RECOMMENDED CLEANING PROCEDURES FOR BERYLLIUM

## VAPOR DEGREASING

1. Place parts and any cathode fixtures in vapor phase until vapor ceases to condense.
2. Wash parts and fixtures thoroughly with hot trichloroethylene spray.
3. Re-immers parts and fixtures in vapor 3-5 minutes, then remove slowly from vapor.

## IMMERSION CLEANING

1. Immerse parts and fixtures in ambient solvent for 5-10 minutes with periodic agitation. Remove parts from solvent and let drain for several minutes.
2. Dry parts with clean dry air or nitrogen. Care must be taken to insure adequate cleaning and drying or recessed areas and holes.
3. Immerse parts and fixtures in clean distilled or deionized water and check for "water break free" surface.
4. Alkaline clean for 10 minutes minimum in a solution of Oakite #90 or equivalent, 8-10 ounces per gallon. Solution temperature: 160-190°F.
5. Immerse part and fixture in 1%  $H_2SO_4$  solution for 30-90 seconds. NOTE: Look for even gassing of part in solution.
6. Rinse in clean distilled or deionized water 1-3 minutes.
7. Blow dry with clean dry air or nitrogen.

## GENERAL CLEANING OR FINGERPRINTS

1. Wipe all areas using a soft clean soaked in acetone or Freon PCA. Wipe repeatedly until no residue is present.
2. Blow dry using clean dry or nitrogen.
3. Handle finished machined parts with lint-free cotton, nylon, dacron or polyethylene film gloves.

**NOTE:** Handling Aluminum-Beryllium Alloys in solid form poses no special health risk. Like many industrial materials, beryllium-containing materials may pose a health risk if recommended safe handling practices are not followed. Inhalation of airborne beryllium may cause a serious lung disorder in susceptible individuals.

The Occupational Safety and Health Administration (OSHA) has set mandatory limits on occupational respiratory exposures. Read and follow the guidance in the Material Safety Data Sheet (MSDS) before working with this material.

For additional information on safe handling practices or technical data on Aluminum Beryllium Alloys, contact Materion.

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