

TECHNICAL DATA SHEET

DUBL-CHEK ER-83A

Method D Emulsifier

Code 1493

DESCRIPTION

ER-83A is a hydrophilic emulsifier used diluted with water to emulsify Sherwin's non water washable penetrants. ER-83A removes surface, non-water washable penetrants by spray or immersion. It complies with low sulfur, low halogen and low sodium requirements.

FEATURES & BENEFITS

- Low to near zero background for assured indication visibility
- Clean, odorless product, vapor free atmosphere
- Minimises the risk of over – emulsification
- Large useable concentration range

PHYSICAL PROPERTIES

Colour: Pinkish
 Viscosity: 33.2 St @ 1000F
 Flash Point: 2200F (104 °C)
 Water Content: 0.6%

SPECIFICATION COMPLIANCE

- AE AMS 2644 & QPL – Method D Remover
- MIL-I-25135 Revisions C, D & E
- ASME Code NDT, Sec V
- Lockheed Martin
- Boeing
- Honeywell
- Pratt & Whitney FPM
- General Electric
- MTU
- Rolling Royce
- Turbomeca
- Airbus
- Northrup Grumman



ORDERING INFORMATION

Product Code	Packaging
1493/42	3.8 litres (1 gallon)
1493/51	18.9 litres (5 gallons)
1493/64	208 litres (55 gallons)

BATCH NUMBERS

Batch numbers can be found on the bottom of aerosol cans or labels of bulk containers. Certificate of Conformance documents are provided with the product or can be download from www.callington.com

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DIRECTIONS

Note: These instructions describe the basic process, but they may need to be amended by the user to comply with applicable specification and /or inspection criteria provided by the contracting agency.

1. **Application:** Apply non-water washable penetrant only to clean, dry surfaces by spraying, flowing, brushing or dipping.
2. **Dwell Time:** A 10-minute dwell time is suggested, although in many cases five minutes will suffice. When particularly tight cracks are suspected, or the part is especially critical, the dwell time may be extended to 30 minutes, or longer. Allow the penetrant to drain from the part surface back into the penetrant tank to conserve material.
3. **Removal:**
 - a. **Immersion Method:**
 - i. **Pre-wash:** Following the dwell use a plain water rinse to remove most of the undrained penetrant from the surface. Use coarse spray ambient temperature water.
 - ii. **Immersion:** Immerse and agitate the part in a 20 to 30% emulsifier solution. Immersion time and agitation will vary with part geometry and surface condition
 - iii. **Rinse:** Remove the part from the tank; clean with a coarse, plain water spray.
 - b. **Spray Method:**
 - i. **Wash:** Following the dwell, use an injection of 0.1 to 5.0% emulsifier solution to wash the excess penetrant from the part surface. Time and solution concentration will vary with part geometry and surface conditions.
 - ii. **Rinse:** Use a coarse plain water spray to remove all traces of the emulsified penetrant.
4. **Drying:** A re-circulating oven set no higher than 1600F (710C) is suggested. Leave the part in the oven just long enough to evaporate surface moisture. Drying is improved by using pressurized air to disperse and remove as much excess water as possible before placing the part into the oven.
5. **Developing:** Apply the developer by cloud dusting, spray or dip using the appropriate developer. Flaw marks are visible under appropriate lighting almost immediately but allow sufficient developing time to enhance the flaw visibility.
6. **Inspection:** Inspect parts under appropriate light.

STORAGE/SHELF LIFE

Keep away from moisture and sunlight. Temperature limit: 400F to 1250F (0-500C). Keep the container closed when not in use. Shelf life from invoice date: Bulk Container – 36 months

HEALTH & SAFETY

ER-83A is a flammable liquid. Use with adequate ventilation and away from sparks, fire or open flames. Avoid prolonged or repeated contact with skin. Do not take internally. Consult the MSDS for more safety and health information.

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