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TECHNICAL BULLETIN #269

CircleSafe 820A

CircleSafe 820A is a pre-proportioned combination of non-fluorescent particles and a specifically formulated wetting agent in water, packaged in carbon dioxide charged aerosol cans. **CircleSafe 820A** is designed to be used in white light inspection for revealing very fine defects as found in finished products and structural fabrications.

PROPERTIES

Particle Color: Black

Particle Size: Not less than 98% passage through US Standard No. 325 (45 μm) sieve as defined in AMS 3042. The typical range of particle sizes is from 0.5 μm to 4.0 μm , with an average particle size of 1.5 μm .

Sensitivity: CIRCLESafe 820A shows a minimum of 6 lines on an AISI 01 Ketos tool steel ring (as defined in SAE AS5282) set on a 1-inch diameter copper bar, magnetized with 2500 A of direct current.

Concentration: 12.0 grams of particles per liter of fluid

Characteristics: Water based, non-flammable, non-corrosive, and free of odors and fumes.

Certification: Particles conform to or exceed all relevant specifications including but not limited to MIL-STD-1949, MIL-STD-271(SH), AMS 3042, and NAVSEA 250-1500-1. Certification is included with each shipment.

DIRECTIONS

1. For best results use when can is between 70° and 90° F (21° and 32° C).
2. Thoroughly clean surface to be examined.
3. Shake can vigorously for fifteen seconds and occasionally during use.
4. Point spray button toward inspection surface holding can 7 to 9 inches (18 to 24 cm) from surface.
5. Spray solution onto suitable magnetized surface until the surface is thoroughly covered with solution.
6. Examine the surface under white light for indications.
7. If clogging develops, turn spray button 1/4 turn. If clogging persists, remove and clean spray button. DO NOT put pin or other object into can opening. Gently replace spray button with a twisting motion, holding top of can and spray button opening pointed away from you.
8. Discard empty can in trash pick-up. DO NOT place in garbage compactor.

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