



Technical Bulletin 271A

CircleSafe® 800A

CircleSafe® 800A is an aerosol spray can of Mi-Glow® 800 fluorescent yellow-green particles and CircleSol M™, a refined petroleum distillate. It is designed to detect very fine discontinuities found in finished products and critical, highly stressed component parts. Its ultra-bright, ultra-sensitive particles allow for excellent detection. The carbon dioxide propellant reduces combustible hazard.

Properties

Particle Color: Fluorescent Yellow-Green

Concentration: 1.25 grams of particles per liter of fluid.

Characteristics: Non-flammable gas propellant. Flash Point (for Oil): 215°F by Pensky-Martens Closed Cup (ASTM D-93).

Particle Size: Not less than 98% passage through US Standard No. 325 (45 µm) sieve as defined in AMS 3044. The typical range of particle sizes is from 1 to 12 µm, with an average particle size of 5 µm.

Sensitivity: CircleSafe® 800A shows a minimum of 8 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.

Certification: Particles meet or exceed all relevant specifications including but not limited to ASTM E 1444, MIL-STD-271, NAVSEA 250-1500-1, ASTM E 709 and ASME B & PV Code - Section V, AMS 3046, AMS 3161, AMS 2641 and A-A-59230.

Temperature Limits: 120°F Maximum

Shelf Life: Two (2) years when stored in a closed container away from heat (<120°F), sparks, open flames and oxidizers. A Certificate of Shelf Life is available upon request.

Directions for Use

Preparation:

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 black light for fluorescent 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. DO NOT place in garbage compactor.

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