

MAGNAGLO[®] 14A AQUA-GLO FLUORESCENT MAGNETIC PARTICLE PREPARED WATER BATH

GENERAL DESCRIPTION

Magnaglo 14A Aqua-Glo is a prepared magnetic particle water bath for wet method fluorescent testing. The ultra-bright, ultra-sensitive particles are designed to detect fine discontinuities and for critical inspections.

14A Aqua-Glo offers the benefits of a water bath and the convenience of an aerosol. It is ideal for spot inspections and difficult to process situations where bulk processing is impractical.

BENEFITS

- High sensitivity
- Clear, bright indications
- Ready to use

APPLICATIONS

14A Aqua-Glo is used in conjunction with suitable magnetizing equipment and ultra-violet light.

- Use to locate fine surface and slightly subsurface discontinuities in ferrous materials such as: inclusions, seams, shrink cracks, tears, laps, flakes, welding defects, grinding cracks, quenching cracks and fatigue cracks
- Spot inspections and difficult to process situations where bulk processing is impractical
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COMPOSITION

14A Aqua-Glo is composed of Magnaglo 14A fluorescent magnetic particles, water, conditioning agents, and carbon dioxide propellant.

TYPICAL PROPERTIES (not a specification)

Color under visible light	Brown
Color under ultra-violet light	Bright yellow-green fluorescence
Mean particle size	6 microns
SAE sensitivity*	7
Settling volume	0.15 – 0.30 ml
Temperature range	40 – 120°F, 4.4 – 49°C

* *Representative of the number of hole indications on an AISI 01 Ketos tool steel ring as defined in SAE AS 5282.*

METHOD OF USE

All components, parts, or test areas should be cleaned prior to testing to provide a suitable test surface.

The suspension must be properly mixed before use; shake the can thoroughly to suspend and disperse the particles. To verify particle concentration, perform a sensitivity check using a QQI or other known test standard prior to inspection. Shake the can occasionally during use to ensure suspension uniformity as particles will settle out of suspension on standing.

- **Wet continuous method:** The particle suspension is applied to all surfaces of the test piece during magnetization. The indications will form during the application of magnetizing current. The suspension spray must be stopped before the magnetizing current is switched off; otherwise there is a risk that the force of the spray will wash away indications.
- **Wet residual method:** The particle suspension is applied to all surfaces of the test piece after magnetization. The magnetized test piece is sprayed with the particle suspension, allowed to drain, and then inspected. This method is generally less sensitive than the continuous method.

Note: Product age, exposure to elevated temperatures, and/or exposure to a strong magnetic field may adversely affect particle redistribution of 14A Aqua-Glo. 14A Aqua-Glo should be stored away from magnetizing equipment and heat sources.

CLEANING

The parts must be properly demagnetized before cleaning to ensure easy particle removal. Cleaned parts may be treated with a temporary film protective coating if additional corrosion protection is required.

SPECIFICATION COMPLIANCE

Specification	14A Aqua-Glo
ASME B & PV Code, Sec V	✓
ASTM E709	✓
ASTM E1444	✓
MIL-STD-2132	✓
NAVSEA 250-1500-1	✓

PACKAGING

265 gram aerosol can

HEALTH AND SAFETY

Review all relevant health and safety information before using this product. For complete health and safety information, refer to the product Material Safety Data Sheet, which are available at www.magnaflux.com.

