

Technical Data Sheet

SMARTCHECK MPI FLUORO

General Description

SMARTCHECK MPI FLUORO is an oil based ready to use fluorescent magnetic ink for use in the Magnetic Particle Inspection process. It consists of a dispersion of fine particles of fluorescent coated iron oxide in a highly refined non-volatile hydrocarbon.

SMARTCHECK MPI FLUORO uses high quality spherical particles of uniform size for improved mobility in response to magnetic fields. The carrier is de-aromatised, virtually odourless and has a high flash point. The particles are designed to show a strong fluorescence under UV light

SMARTCHECK MPI FLUORO is used to detect fine surface and near surface discontinuities in ferrous materials such as low alloy steels.

Method of Use

Surface temperature should be between -20°C and 75°C.

The component to be inspected should be first cleaned to remove paint, grease, rust, scale or other contaminants.

The component should then be magnetised using appropriate means and SMARTCHECK MPI FLUORO mixed thoroughly and applied to the test area by spraying or flowing. Ensure that magnetisation is continued for a few seconds after application of SMARTCHECK MPI FLUORO.

The component should be inspected under suitable UV lighting. Users should refer to the relevant specification for UV and white background lighting requirements. Indications will appear as yellow fluorescing lines around flux leakage fields.

SMARTCHECK MPI FLUORO is readily removed using SMARTCHECK MPI CLEANER. Demagnetising the component prior to cleaning will assist in the removal.

Typical Properties (Not a specification)

Appearance:	Brown particles (bright green/yellow under UV) suspended in a clear mobile liquid.
Density (g/mL):	approx. 0.81 g/mL
Flash Point:	Greater than 100°C
Solids Content:	Approx 0.2%

Specifications

SMARTCHECK MPI FLUORO conforms to;

AMS 3045 (Bulk)	AMS 3046 (Aerosol)	ISO 9934-2
ASTM E-3024	ASTM E-1444	AS 1171

Note: ASTM E-3024 for industrial application and ASTM E-1444 for aerospace applications.

Effects on Materials

SMARTCHECK MPI FLUORO should not have any adverse effects on steel or most other metals. The product may cause swelling of some plastics and rubbers after prolonged contact. Users are advised to check the compatibility.

Storage

SMARTCHECK MPI FLUORO should be stored under good warehousing conditions out of direct sunlight and away from heat sources. The aerosols must be stored at temperatures below 50°C.

Safety

SMARTCHECK MPI FLUORO in the aerosol form is flammable by flame extension, even though, it is manufactured from a combustible liquid and non flammable gas. SMARTCHECK MPI FLUORO is combustible and is not classified a dangerous good in bulk form. Use away from sources of ignition or intense heat.

Refer to the SDS before using this product.

Packaging & Product Codes

MPIFA - 300g Aerosols
MPIF5 - 5 L Drums
MPIF20 - 20 L Drums

Disclaimer

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