

TECHNICAL DATA SHEET

DUBL-CHEK MPF

MAGNETIC PARTICLE FLUID

Description: DUBL-CHEK MPF is highly refined light petroleum oil media. The fluid has been formulated to increase the particle agitation when mixed in suspensions with **Black Oxide No.1** or **GW-1**. To be used in the Magnetic Particle inspection wet method, it has high clarity, no fluorescence or odour.

Properties

Colour:	Clear
Viscosity:	2.5 cSt @ 35°C
Fluorescence:	None
Boiling Point:	232°C (450°F)
Flash Point:	98°C (210°F)
Specific Gravity:	0.81g/ml

Companion DUBL-CHEK Products

Black Oxide No.1 Particles	GW-1 Fluorescent Particles	
CP-2 Contrast Paint	MPF – Magnetic Particle Fluid	W5C – Water Conditioner

Packaging

18.9L Product Code: 1491/51

Storage /Shelf Life

Keep away from moisture and sunlight.
Keep the container closed when not in use.
Temperature limit: 0°C to 50°C (40°F-125°F)
Shelf life: 36 months (3 years) from date of manufacture.
Refer to NDT Shelf Life and Storage Recommendations for further information.

Specifications

Meet or exceed industry specifications including;
SAE AMS 2641 DOD F-87935 Pratt & Whitney ASME B & P Code Sections

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 downloaded from www.callington.com

Special Features

Has a flash point over 93°C
No odour, no fluorescence and no yellow colour.
Low background for assured indication visibility.

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Instructions

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

Refer to **Black Oxide No.1** and **GW-1** Technical Data Sheets for mixing instructions.

1. Clean the test surface and allow it to dry.
2. Apply **DUBL-CHEK CP-2** for background contrast, if required.
3. Fill the magnetic particle tank or container to the proper level with **MPF**, and start to agitate the fluid. Add the pre measured amount of magnetic particles to the agitated fluid. The mixture should be agitated for 15 minutes before measuring the concentration.
4. Ensure continuous agitation of the suspension during inspection.
5. Magnetise the area to be inspected.
6. Apply the suspension to the test part at a distance of approximately 150mm from the surface.
7. Allow the excess oil to run off the inspection area.
8. Inspect the surface under visible or ultraviolet light.
9. Collections of particles will reveal discontinuities at the leakage fields.
10. Clean and repeat the process; changing the orientation of the magnetising direction.

Health & Safety

DUBL-CHEK MPF is a combustible liquid. Use with adequate ventilation and away from spark, fire or open flames. Avoid prolonged or repeated contact with skin. Do not breathe gas, fumes, vapour or spray. Consult the MSDS for more Safety and Health information.

Get medical attention if irritation develops and persists. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

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