

## TECHNICAL DATA SHEET

# DUBL CHEK BO-1

Code 1503

## Black Oxide No.1 Magnetic Particle Oil Dispersion

### DESCRIPTION

DUBL-CHEK BO-1 is Black Oxide No.1 black magnetic oxide suspended in a highly refined light petroleum oil. The suspension responds to magnetic leakage fields created by discontinuities in ferromagnetic material. Particles rapidly collect at leakage fields producing black indications.

### FEATURES & BENEFITS

- A unique 360° spray valve
- Low background colour for high contrast indication visibility
- Multiple spray patterns for controlled application and comfort
- Particles are easily agitated, fast acting and produce defined indications
- Can be used with both stationary and portable magnetic test equipment
- Aerosols offer convenience and improve reliability

### PHYSICAL PROPERTIES

Particle Colour: Black  
 Particle Concentration: 1.2 – 2.4 ml (i.a.w AMS 3041 & AMS 3043)  
 Particle Size: 0.5 - 4.0 µm, with an average size of 1.5µm  
 SAE Sensitivity: 6 lines  
 Suspension Fluid: Clear highly refined light petroleum oil or water  
 Viscosity: 2.64 cSt ± 5% (ASTM D445 @ 37.8°C±1°C)  
 Flash Point: >95°C (>200°C)

### SPECIFICATION COMPLIANCE

- ASTM E3024
- ASME B&PV Sec V
- AS 1171
- ASTM E709
- ISO 9934
- MIL-STD-271
- NAVSEA T9074-AS-GIB-010/271
- MILSTD-1949
- AMS 3041
- AMS 3043
- AMS 2641
- NATO Stock Number: 6850-01-88-9868



### ORDERING INFORMATION

Product Code	Packaging
1503/400	Aerosol
1503/42	3.8 liters (1 gallon)
1503/51	18.9 liters (5 gallons)
1503/64	208 liters (55 gallons)

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### COMPANION PRODUCTS

CP-2 Contrast Paint

### 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](http://www.callington.com)

### DIRECTIONS

**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.

1. Clean the test surface and allow it to dry
2. Apply DUBL-CHEK CP-2 for background contrast
3. Ensure continuous agitation of the suspension. If using an aerosol, shake vigorously before and during inspection.
4. Apply the BO-1 suspension to the test part at approximately 150mm from the surface.
5. Allow the excess oil/water to run off the inspection area.
6. Inspect the surface under visible light.
7. Collections of Black Oxide No.1 particles will reveal discontinuities at the leakage fields.
8. Clean and repeat the process; changing the orientation of the magnetising direction.

### 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 to 125°F). Refer to NDT Shelf Life and Storage Recommendations

### HEALTH & SAFETY

DUBL-CHEK CP-2 is flammable and when packaged within an aerosol is extremely flammable. 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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