BLACK OXIDE NO. 1 MAGNETIC PARTICLES

DUBL-CHEK PENETRANT PROCESS

PRODUCT INFORMATION

Description: **Black Oxide No.1** is a black magnetic powder mixed with light oil or water to find microscopic cracks in ferrous metals by magnetic particle method.

It is highly sensitive for inspecting critical parts. **Black Oxide No.1** marks indications with a more precise, and easier to read flaw image. It is widely used for both manufacturing and preventive maintenance inspection.

Companion Materials: Sherwin **MPF** - Magnetic Particle Fluid
Sherwin **W5C** - Water conditioner with corrosion inhibitors
Sherwin **CP-1** - Contrast Paint

Container Sizes: one pound cans
five pound cans
case of 12 aerosol cans (12 or 16 oz.)

Basic Instructions: (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.)

Mixing: **Black Oxide No.1** may be mixed either with oil or water.

Oil: Add **Black Oxide No.1** to any approved light oil, such as Sherwin MPF, at the rate of 2.2 grams/liter. Add the **Black Oxide No.1** to the oil slowly while agitating. The mixture should be agitated for 15 minutes before the concentration is measured. The concentration may be adjusted by adding more light oil or **Black Oxide No.1** as required.

Water: The water must be conditioned before adding the **Black Oxide No.1** in order to disperse the particles, wet the tst surface, and inhibit corrosion. Sherwin W5C is the recommended conditior, and is added at 10 grams/liter (1-1/3 ounces per gallon) of water.

Applicable Specifications:

MIL-STD-1949 E
ASTM E 709
ASTM E 1444
AMS 3042

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PRECAUTIONARY INFORMATION

Black Oxide No.1 is a light powder and can be hazardous to health of not used properly. Avoid inhalation. Do not get into eyes. Keep out of reach of children.

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