

April 10, 2017

CERTIFICATION

We hereby certify that samples of the material identified below by batch number, have been analyzed in accordance with test methods that meet and/or exceed the detection limits for fluoride, chloride, and sulfur per ASME Boiler and Pressure Vessel Code, Section V, Article 6, paragraph T-641, 1998 through 2015 Editions and Addenda, with the following results:

		FLUORIDE	CHLORIDE	SULFUR
		ASTM E165	ASTM E165	ASTM E165
		<u>ANNEX 4</u>	<u>ANNEX 4</u>	<u>ANNEX 4</u>
DUBL-CHEK	MPF	<0.0001 % BW	<0.0001 % BW	<0.0001 % BW
BATCH NO.	77-D60			

We further certify that this material meets or exceeds the requirements of ASTM E1444, MIL-I-6868E, A-A-59230, ASTM E709, and AMS 2641.

SHERWIN INCORPORATED

Emad Assar
R&D Chemist

Revision: August 2005

CERTIFICATE OF CONFORMANCE

Apr. 10, 17

Product: MPF – Magnetic Particle Fluid

Batch No.: 77-D60

It is hereby certified that this material has been manufactured in accordance with, and conforms to ASTM E1444, MIL-STD-1949, A-A-59230 and AMS 2641 Type I. Results of the required quality conformance tests are listed below.

<u>Test Description</u>	<u>Results</u>
Flash point i.a.w. ASTM D93	>230°F
Viscosity i.a.w. ASTM D445 at 100 ± 1°F	2.72 cSts
Background fluorescence	Conforms
Fluoride content i.a.w. ASTM E165, Annex 4	0.0001% BW
Chloride residue i.a.w. ASTM E165, Annex 4	0.0001% BW
Sulfur residue i.a.w. ASTM E165, Annex 4	0.0001% BW

It is further certified that this material meets the requirements of ASME B&PV Code Section V and ASTM E709.

Sherwin Incorporated



Emad Assar
R&D Chemist

Revision: August 2005