

Product Name	ZL-440	Batch Number	26A013
Date	01/09/2026	Best By Date	01/2031
Classification	Type 1 Level 2 Method A(W) Water-Based Penetrant	Purchase Order	

It is hereby certified that when tested at the time of manufacture, the above listed material and batch number meets the requirements of and has been tested for Sulfur and Halogens according to:

- ASME Boiler and Pressure Vessel Code, Section V 2007- 2025 Edition, Nondestructive Article 6 paragraph T-641 and Article 24 as applicable.
- ASTM 165/E-165M-23 Paragraph 7.1.
- NAVSEA T9074-AS-GIB-010/271 (September 11, 2014) Paragraph 5.3.1 and 5.6.2
- MIL-STD-2132E, March 29, 2016, Paragraphs 7.1, 7.1.2 and 7.1.3, Appendix C, Paragraph 40.

The following test results were obtained:

Sulfur 12 ppm 0.0012 wt % . CL+F <10 ppm <0.0010 wt %

Specification ASTM 1417, Paragraph 5.

It meets requirements.

Specification AMS 2644J

When tested according to paragraph 4.3.2, Sampling Plan A, the following test results were obtained:

- 4.2.2.1 Penetrant Tests

Test	Requirements	Result
Flash Point	3.3.3	>200 ° F
Viscosity (14.31 cs. Nominal)	3.3.4	14.34 cst
Penetrant Brightness (FP-4PE Standard)	3.3.8.3.2	82.07 %
Water Tolerance	3.3.8.5	NA %
Penetrant Removability	3.3.8.7	PASS
Water Content	3.3.8.8	48.77 %

Approved by:



Quality Control Manager

Notes:

1. Our batch number appears on the label of bulk containers. Aerosols have batch numbers printed on bottom of the container.
2. Most specifications require test results to be stated in percent but some require parts per million (ppm). To convert "percent" figures to "parts per million" move the decimal four places to the right.
3. MIL-STD-271, MIL-STD-2132 and ASME Sec V, all require that materials be subject to a procedure to evaporate off volatile solvents before analysis for Sulfur and Halogens. According to these specifications, only those residues higher than 0.005 g/100ml shall be analysed for Sulfur and Halogens. Lower residues shall be reported.
4. The above certification gives the results obtained at the time of manufacture. Age and use may alter the properties of any material.