

## Spotcheck Developer SKD-S2

Date: 11/09/2016 Purchase Order: Batch #: 16L03K

> 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, 2004, 2007, 2010 2013 and 2015 Edition, Section V, Nondestructive Examination, including 2005, 2006, 2008,2009b, and 2011a Addenda, Article 6 Paragraph T-640 and Article 24 as applicable.
- ASME Boiler and Pressure Vessel Code, 1995, 1998 and 2001 Edition, Section V Nondestructive Examination, including 1999, 2000, 2002 and 2003 Addenda, Article 6 Paragraph T-640 and Article 24 as applicable.
- ASME Boiler and Pressure Vessel Code, 1986, 1989 and 1992 Edition, Section V, Nondestructive Examination, Article 6 including 1992 Addenda, Paragraph T-625, 1993 Addenda Paragraph T-640 and Article 24 as applicable.
- ASTM E-165-92, ASTM E-165-94, ASTM E-165-95, ASTM E-165-02, ASTM E-165-09, ASTM E-165/E-165M-12, Paragraph 7.1.
- MIL-STD-271F(SH) June 27, 1986, Paragraphs 5.3 and 5.3.1, including Notice 1 Paragraph 5.6.1 June 21, 1993.
- NAVSEA T9074-AS-GIB-010/271( April 30, 1997 including Notice 1, September 11, 2014 Rev. 1)
   Paragraph 5.3.1 and 5.6.2
- NAVSEA 250-1500-1 (Rev. 10 June 1979, Rev. 11 May 1983, Rev. 12 December 1987 including ACN 2 November 15, 1990, Rev. 13 October 1993 including ACN 4 June 30, 1995, Rev. 16 May 9, 2003 Including ACN 5, Rev. 17, Sept. 2007 including ACN 6, Paragraphs 12.5.1.1 and 12.5.1.1.1).
- MIL-STD-2132D, February 11, 2003, Paragraphs 7.1, 7.1.2 and 7.1.3, Appendix C, Paragraph 40.

The following test results were obtained:

Sulfur_	37	_ppm_	0.0037	_ wt., %	% of residue.	CL+F_	78.306	ppm_	0.0078	_ wt., % o	f residue
	Cleaner re	esidue (	(see note	3)	NA	g/1	00g	NA	g/	100ml	

It is further certified that this material does not contain mercury as a basic element and that no mercury bearing equipment has been used in its manufacture.

Notes

1. Our batch number appears on the bottom of all aerosol cans and on the label of all bulk containers.

3. The above certification gives the results obtained at the time of manufacture. Age and use may alter the properties of any material.

Mathew Plamoottil

**Quality Assurance Manager** 

Laurie Marx

**Quality Control Manager** 

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<sup>2.</sup> 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.



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It is hereby certified that the above listed inspection material and batch number meets the requirements of AMS 2644F and is approved by the U.S. Air Force and listed on QPL-AMS-2644.

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

4.2.2.1 Penetrant Tests:

Flash Point (PMCC), 3.3.3	NA	٥F
Viscosity, 3.3.4 (cs. Nominal) Fluorescent Brightness, 3.3.8.3.2 (FP-4PE Standard)	NA	cs@100 º F
Water Tolerance (Method A only), 3.3.8.5	NA	%
• • • • • • • • • • • • • • • • • • • •	NA NA	9
Removability, 3.3.8.6	NA	

4.2.2.1 Emulsifier Tests:

Flash Point (PMCC), 3.3.3	NA	° F
Viscosity, 3.3.4 (13.73 cs. Nominal) Water Content (Method D Only), 3.3.9.6	NA	cs@100 º F
vvater Content (wethou D Only), 3.3.3.0	NA	%

4.2.2.3 Developer Tests:

Developer Fluorescence, 3.3.10.2	PASS
Developer Removability, 3.3.10.4	_ PASS
Redispersibility, 3.3.10.5	PASS
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• 3.3.11.4 Remover Tests:
Penetrant Removal, 4.4.11.2

It is further certified that this material meets the requirements of ASTM E 1417, Paragraph 5.1.

Batch Numbers appear on labels of bulk containers and on bottoms of aerosol cans.

Mathew Plamoottil

Quality Assurance Manager

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**Quality Control Manager** 

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## SKD-S2

Date: 11/09/2016 Purchase Order: Batch #: 16L03K

We hereby certify that the Penetrate inspection material

Type SKD-S2 , Batch No. 16L03K

Manufactured in November, 2016 furnished on the above order number meets the requirements of EN ISO 3452-2, with the following results.

Individual Property	Section	Requirement	Result
Appearance	6.1	White	PASS
Sensitivity (30μm panel)	6.2	Sensitivity Level (1(<75%) or 2 (≥75%)) Penetrant: SKL-SP2	2
Density	6.3	.707824@ 20°C (68°F)	0.786
Residue on evaporation/solid content	6.13	13.83 - 16.94 g*	15.44
Flashpoint	6.5	NA	NA**
Corrosive Properties (Mg)	6.11	No evidence of staining, pitting or corrosion	PASS
Developer Performance	6.15	Fine, even, non-reflective and non- fluorescent coating, shall increase visibility of the penetrant indications	PASS
Re-dispensability	6.16	Readily dispersed when stirred or agitated. Aerosol shall be suspended after 30sec shaking	PASS

<sup>\*</sup>Residue on evaporation/solid content is done from the bulk material and not the aerosol cans. Value obtained is more accurate on bulk material.

Mathew Plamoottil

Quality Assurance Manager

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<sup>\*\*</sup>Flashpoint not required per ISO3452-2:2013 6.5.1 flashpoint measurement only required for material with nominal flash of 20°C and 110°C. Flashpoint is below 20°C

<sup>\*\*\*</sup>Testing in accordance with 5.4.3 Table 4 as applicable