

# Spotcheck Developer SKD-S2

Date: 09/21/2023

Purchase Order:

Batch #: 23J046

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, 2004,2007,2010,2013,2015,2017, 2019 and 2021 Edition, Nondestructive Examination, including 2005, 2006, 2008,2009b, and 2011a Addenda, Article 6 Paragraph T-641 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, ASTM E-165/E-165M-18, ASTM E-165/E-165M-18, 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, and Rev. 18 August 2013) 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 59.463 ppm 0.0049 wt., % of residue. CL+F 209.841 ppm 0.0210 wt., % of residue  
Cleaner residue (see note 3) NA g/100g 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.
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. The above certification gives the results obtained at the time of manufacture. Age and use may alter the properties of any material.



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Quality Assurance Manager



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Quality Control Manager

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# Spotcheck Developer SKD-S2

Date: 09/21/2023

Purchase Order:

Batch #: 23J046

It is hereby certified that the above listed inspection material and batch number meets the requirements of AMS 2644H 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 | ° F        |
| Viscosity, 3.3.4 ( cs. Nominal)                    | NA | cs@100 ° F |
| Fluorescent Brightness, 3.3.8.3.3(FP-4PE Standard) | NA | %          |
| Water Tolerance (Method A), 3.3.8.5                | NA | %          |
| Water Tolerance (Method B, D), 3.3.8.5             | NA |            |
| Removability, 3.3.8.6                              | NA |            |
| Water Content, 3.3.8.7                             | NA | %          |
  
- 4.2.2.1 Emulsifier Tests:

|  |    |            |
|--|----|------------|
| Flash Point (PMCC), 3.3.3              | NA | ° F        |
| Viscosity, 3.3.4 ( cs. Nominal)        | NA | cs@100 ° F |
| Water Content (Method D Only), 3.3.9.6 | 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 |  |
  
- 3.3.11.4 Remover Tests:

|                             |    |  |
|-----------------------------|----|--|
| Penetrant Removal, 4.4.11.2 | NA |  |
|-----------------------------|----|--|

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



Laurie Marx  
Quality Control Manager

# SKD-S2

Date: 09/21/2023

Purchase Order:

Batch #: 23J046

We hereby certify that the Penetrant inspection material

Type SKD-S2 , Batch No. 23J046

Manufactured in September, 2023 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%))<br>Penetrant: SKL-SP2  | 2      |
| Density                              | 6.3     | .707-.825@ 20°C (68°F)   | 0.783  |
| Residue on evaporation/solid content | 6.13    | 13.83 - 16.94 g*   | 15.63  |
| 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   |

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

\*\*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

\*\*\*Testing in accordance with 5.4.3 Table 4 as applicable



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