CERTIFICATION
FP-97A(M)
BATCH \# 21518

| PRODUCT | DESCRIPTION | TYPE | METHOD | SENSITIVITY | FORM | CLASS | APPROVAL <br> DATE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FP-97A(M) | Fluorescent Penetrant | 1 | B, C, \& D | 4 | N/A | N/A | 21-Apr-2020 |

We hereby certify that this batch of inspection material when tested following manufacture meets the following:
Certificamos que este lote de material de inspeccíon cumple con los siguientes requisitos cuando es probado despues de la fabricación:

- SAE AMS 2644H and on the Qualified Products List (test reference: AFWAL/MLS 86-88, AFRL/MLS 98-165).
- Is not water soluble
- ISO/FDIS 3452
- Boeing BSS 7039 \& BAC 20-20-02
- Safran IN-5000c; Snecma sensibilité S4.
- Pratt \& Whitney FPM PMC \#4354-7 AN
- NAVSEA 250-1500-1 I 12.5.1.1.1, Rev 18
- Rolls-Royce RPS-702-7; CSS 232; OMat \# 652E, RRP 58003C
- AMS 2647G, ASTM E165/E165M-18 and ASTM E1417/E1417M-21
- General Electric Aircraft Engines 70-32-02 \& Gas Turbines LM6000 PC
- ASME Boiler \& Pressure Vessel Code 2019, Section V, Article 6, appendix II-I-641 \& II-J-642

PO\# $\qquad$

- 10 CFR part 21 applies.

Is free of all known Ozone depleting substances and mercury contamination and was not made in any mercury bearing equipment. Does not contain polychlorinated biphenyl (PCB), nonylphenol ethoxylates (NPE), or RoHS banned substances.
Esta libre de todas sustancias degradantes del ozono, de contaminación de mercurio, y no fue fabricado usando equipo conteniendo mercurio. No contiene polychlorinated biphenyl (PCB), nonylphenol ethoxylates (NPE), o RoHS sustancias prohibidas.

- Shelf life is 5 years from date of batch approval.

Vida útil de garantia son 5 años desde la fecha del "approval date".

- Batch number is on bulk labels or bottom of aerosol cans.

Numeros de lote se encuentran en las etiquetas de los botes a granel o en el fondo de los botes de aerosol.

| QUALITY ASSURANCE TESTS | REQUIREMENTS | $\begin{aligned} & \text { BATCH } \\ & \text { RESULTS } \end{aligned}$ |
| :---: | :---: | :---: |
| Appearance: | MLC: Clear green liquid, no sediment. | Pass |
| Density: | MLC: $924 \mathrm{~g} / \mathrm{L}-965 \mathrm{~g} / \mathrm{L} @ 21.1^{\circ} \mathrm{C}\left(70{ }^{\circ} \mathrm{F}\right)$ | 964 g/L |
| Flash Point: ASTM D93, AMS-2644 9 3.3.3, PMC 4354-7 | PMC 4354-7: > 93.3 ${ }^{\circ} \mathrm{C}\left(>200{ }^{\circ} \mathrm{F}\right)$ | $>200{ }^{\circ} \mathrm{F}$ |
| Viscosity: ASTM D-445, AMS-2644 ¢ 3.3.4, PMC 4354-7 | PMC 4354-7: 6.8-9.2 mm2/s @ 37.7 ${ }^{\circ} \mathrm{C}\left(100^{\circ} \mathrm{F}\right)$ | $9.0 \mathrm{~mm}^{2} / \mathrm{s}$ |
| Fluorescent Brightness: AMS-2644 『 3.3.8.3.3; per ASTM E-1135-19 | AMS-2644: $\geq 95 \%$ of level 4 std. FP-4PE | $109 \%$ |
| Removability: AMS-2644 \| 3.3.8.6 | MLC: Equal to MLC Level 4 Standard | Pass |
| Sulfur Content: per ASTM E-165/E165M-18 9.1.2 Annex A4 | ISO 3452: $\leq 200 \mathrm{ppm}$ (0.02 \%); PMC 4354-7: $<1000 \mathrm{ppm}$ ( $0.1 \%$ ) | <200 ppm |
| Chloride Content: ASTM E-165/E165M-18 9 9.1.2 Annex A4 | ISO 3452:- $\leq 200 \mathrm{ppm}(0.02 \%$ ); PMC 4354-7: < 400 ppm (0.04\%) | $<200 \mathrm{ppm}$ |
| Fluoride Content: ASTM E-165/E165M-18 \| 9.1.2 Annex A4 | PMC 4354-7: $\leq 50 \mathrm{ppm}$ (0.005 \%) | $<50 \mathrm{ppm}$ |
| Total Halogen Content: ASTM E-165/E165M-18 9 9.1.2 Annex A4 | ISO 3452: $\leq 200 \mathrm{ppm}$ (0.02 \%) | $<200 \mathrm{ppm}$ |
| Sodium Content: ASTM E-165/E165M-18 ¢ 9.1.2 Annex 4, MCL M-504 | PMC 4354-7: $\leq 100 \mathrm{ppm}$ (0.01 \%) | $<100 \mathrm{ppm}$ |

MET-L-CHEK QUALITY ASSURANCE

BATCH TESTED BY:



DENNIS MASON
QC CHEMIST

BATCH APPROVED BY:


JUSTINE FORD
PLANT CHEMIST

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