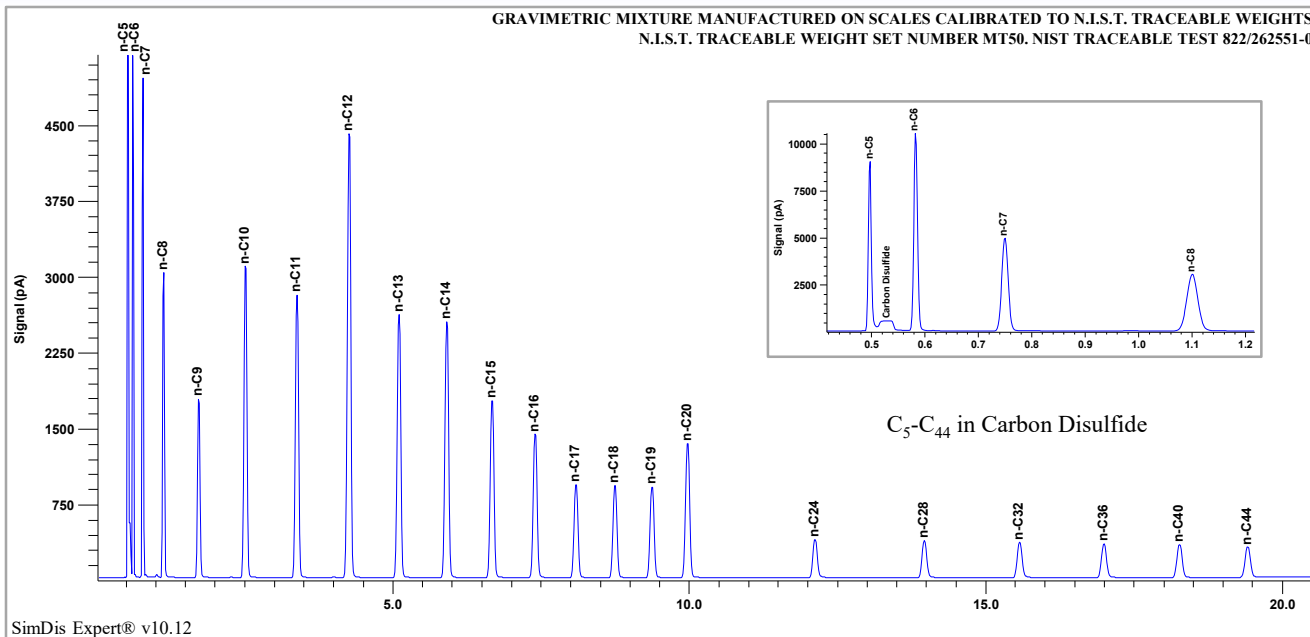


Certificate of Analysis

SD-SS3E-02 Lot # 071719ES

GRAVIMETRIC MIXTURE MANUFACTURED ON SCALES CALIBRATED TO N.I.S.T. TRACEABLE WEIGHTS
N.I.S.T. TRACEABLE WEIGHT SET NUMBER MT50. NIST TRACEABLE TEST 822/262551-0



SD-SS3E-02 Retention Time and Response Factor Standard for ASTM D2887

Lot #: 071719ES Exp: July 2024

Column: SD-002-EX2M (10m x 0.53mm x 0.9µm) **Inlet:** 80°C-350°C at 15°C/min **Carrier:** UHP He; 2 mL/min (0.2 min hold) to 20 mL/min at 50 mL/min²
Oven: 30°C (0.2 min hold) to 350°C at 15°C/min (5 min final hold) **Detector:** FID at 360°C **Injection Volume:** 0.2 µL

Component	Mass (mg)	Component	Mass (mg)
n-Pentane	C ₅ 106.4	n-Hexadecane	C ₁₆ 150.7
n-Hexane	C ₆ 147.2	n-Heptadecane	C ₁₇ 100.9
n-Heptane	C ₇ 117.7	n-Octadecane	C ₁₈ 100.3
n-Octane	C ₈ 123.8	n-Nonadecane	C ₁₉ 101.4
n-Nonane	C ₉ 107.9	n-Eicosane	C ₂₀ 154.4
n-Decane	C ₁₀ 234.5	n-Tetracosane	C ₂₄ 49.6
n-Undecane	C ₁₁ 239.9	n-Octacosane	C ₂₈ 50.3
n-Dodecane	C ₁₂ 402.9	n-Dotriacontane	C ₃₂ 51.0
n-Tridecane	C ₁₃ 249.8	n-Hexatriacontane	C ₃₆ 50.0
n-Tetradecane	C ₁₄ 253.2	n-Tetracontane	C ₄₀ 50.6
n-Pentadecane	C ₁₅ 179.0	n-Tetratetracontane	C ₄₄ 47.4

Calculate the Relative Response Factor of the FID according to the following equation:

$$F_n = \frac{M_n}{A_n} \bigg/ \frac{M_{C_{10}}}{A_{C_{10}}}$$

F_n = Relative Response Factor of n -Paraffin
 M_n = Mass of n -Paraffin
 A_n = Peak Area of n -Paraffin
 $M_{C_{10}}$ = Mass of n -Decane
 $A_{C_{10}}$ = Peak Area of n -Decane

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