

ASTM D3606 / D5580 – Analysis of Benzene and Toluene, BTEX and Total Aromatics in Gasoline

Analyzer Description

Configuration:

2-valve, 4-column (micro-packed and capillary), auxiliary oven, TCD / FID

Sample type:

Finished motor and aviation gasoline

Components separated:

ASTM D3606: Benzene, toluene

ASTM D5580: Benzene, toluene, ethyl benzene, xylene, C₉ and heavier aromatics, total aromatics

Concentration range:

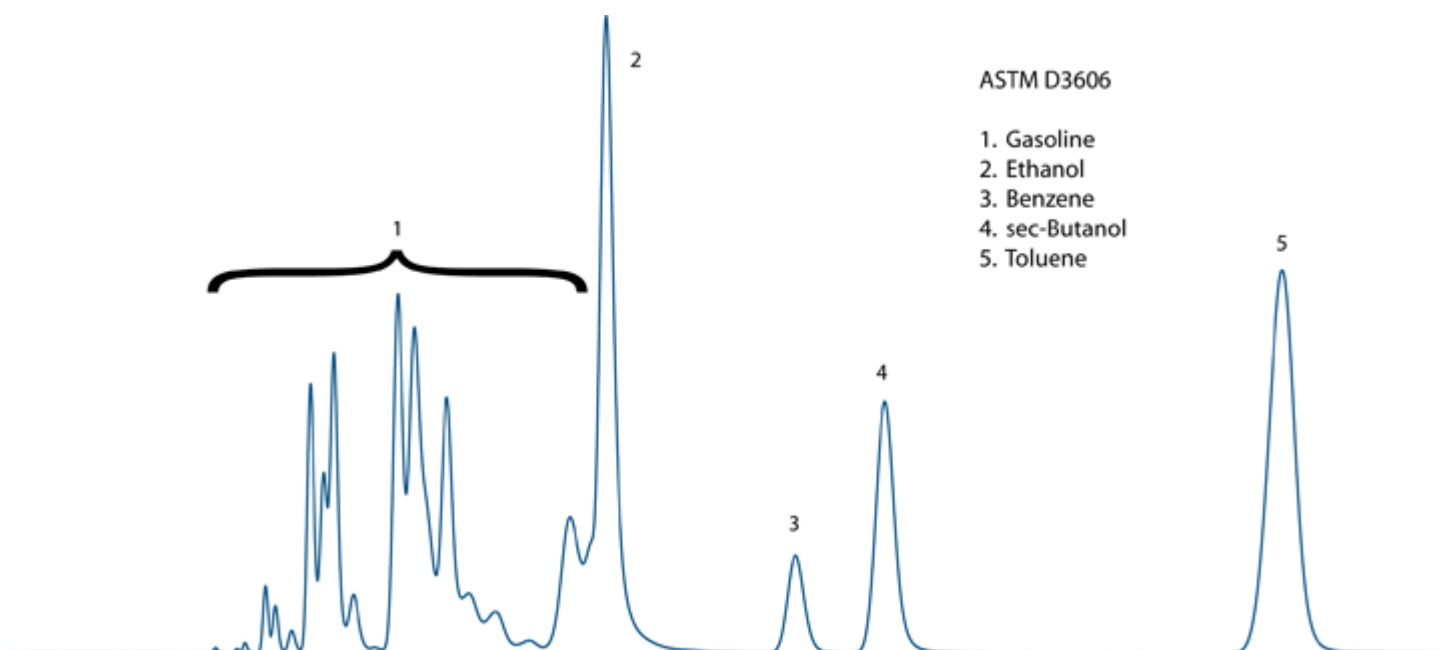
ASTM D3606: 0.1 to 5 vol% for benzene, 2 to 20 vol% for toluene

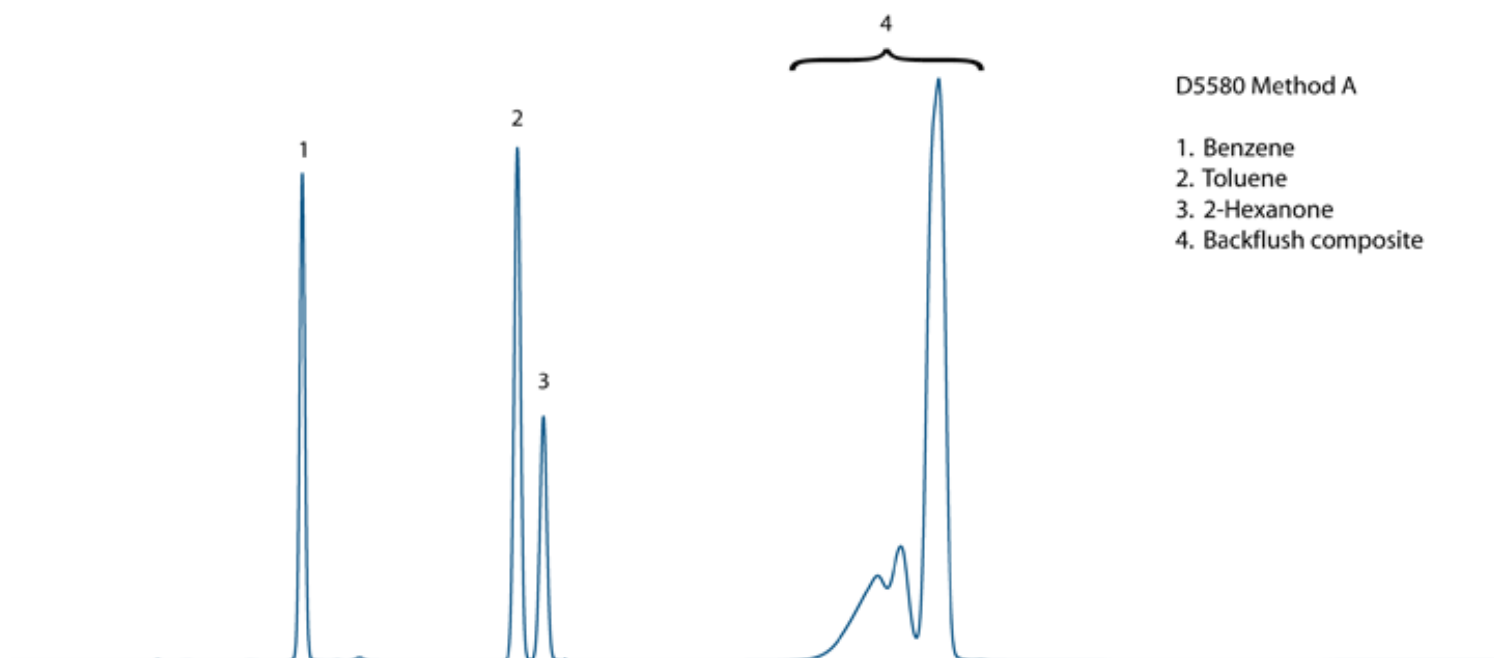
ASTM D5580: 0.1 to 5 vol% for benzene, 1 to 15 vol% for toluene, 0.5 to 10 vol% for individual C₈ aromatics, 5 to 30 vol% for total C₉ and heavier aromatics, 10 to 80 vol% for total aromatics

Methods met:

ASTM D3606, D5580, Wasson-ECE 256

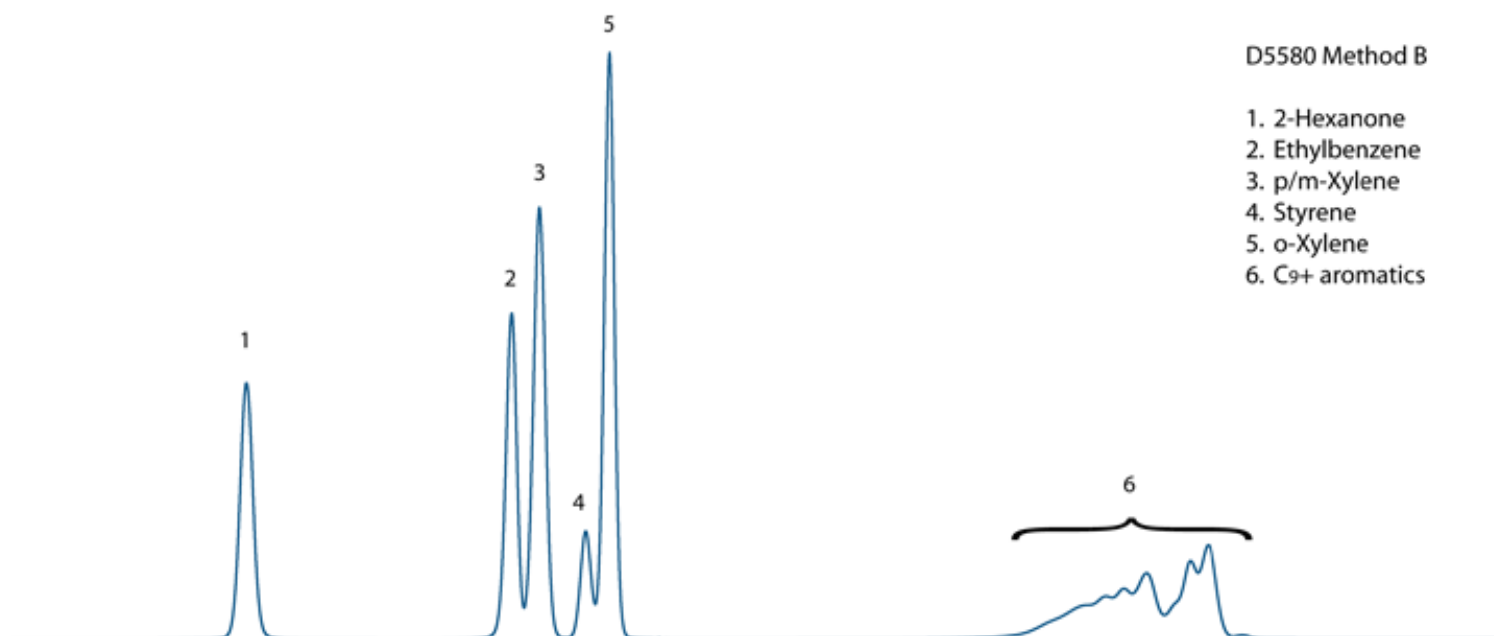
Typical Chromatogram





D5580 Method A

1. Benzene
2. Toluene
3. 2-Hexanone
4. Backflush composite



D5580 Method B

1. 2-Hexanone
2. Ethylbenzene
3. p/m-Xylene
4. Styrene
5. o-Xylene
6. C9+ aromatics

Key Features and Benefits

- The Wasson-ECE auxiliary oven allows for simultaneous analysis of both methods
- Multiple configurations are possible including the addition of ASTM D4815 to the same instrument