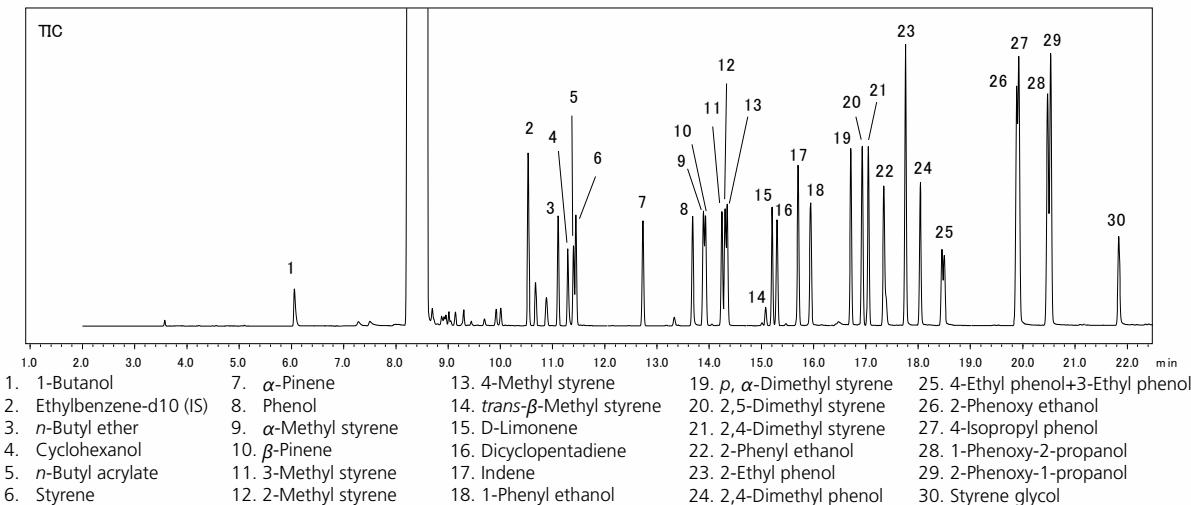


**CoreFocus**  
 Report  
 No.391

GCMS    AOC    SH Series

**SH-1/SH-5MS**  
**Determination of Chemical Species in**  
**Marine Fuel Oil in Accordance with ASTM**  
**D 7845**
**Keywords: Environment, Fuel, Aromatic compounds**

**System Configuration**

Model	: GCMS-QP™2020 NX/AOC-20i Plus	Total flow rate	: 35 mL/min
Injection Port	: PTV-2030	Split flow rate	: About 25 mL/min*
Detector	: MS/FID-2030	Purge gas	: 3.0 mL/min
Detector splitting unit		Column temp.	: 50 °C (2 min) - 7 °C /min - 200 °C
1st Column	: SH-1 (30 m x 0.25 mm I.D., 0.25 $\mu$ m) P/N : 221-75719-30	APC pressure	: 103 kPa
2 <sup>nd</sup> Column	: SH-5MS (60 m x 0.32 mm I.D., 0.5 $\mu$ m) P/N : 227-36126-02	FID temp.	: 240 °C
Restrictor	: VSD tubing (1.0 m x 0.15 mm I.D.)	H <sub>2</sub> flow rate	: 32 mL/min
<b>Analysis Conditions</b>		Air flow rate	: 200 mL/min
Injection volume	: 0.5 $\mu$ L	Makeup flow rate	: 24 mL/min
Column oven temp.	: 200 °C (14 min) - 200 °C/min - 400 °C (9 min)	Ion source temp.	: 200 °C
Carrier gas	: He	Interface temp.	: 250 °C
Carrier gas control	: Pressure, 260 kPa (19.5 min) - 400 kPa/min - 15 kPa (3.89 min)	Tuning mode	: High concentration mode
		Ionization method	: EI
		Measurement mode	: Scan/SIM (FASST mode)
		Event time	: Scan 0.1 s/SIM 0.2 s

\* The split flow rate is set based on the total flow rate, the column inlet pressure and the column length.

 Source : Application News M304A ([JP](#), [ENG](#))

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