

Q-SERS™ G1 and G0 Comparison (785 nm)

Limit of Detection						
Chemicals			Q-SERS™ G0		Q-SERS™ G1	
Name	CAS	Formula	Portable Raman	Bench-top Raman	Portable Raman	Bench-top Raman
1,2-Bis(4-pyridyl)ethane	4916-57-8	C ₁₂ H ₁₂ N ₂	5ppm	200ppb	10ppm	1ppm
4-Mercaptopyridine	4556-23-4	C ₅ H ₅ NS	500ppb	200ppb	1ppm	200ppb
4-Methylbenzenethiol	106-45-6	CH ₃ C ₆ H ₄ SH	10ppm	2ppm	10ppm	2ppm
Azinphos-methyl	86-50-0	C ₁₀ H ₁₂ N ₃ O ₃ PS ₂	2ppm	5ppm	5ppm	5ppm
Brilliant Cresyl Blue	81029-05-2	C ₁₇ H ₂₀ N ₃ OCl · 1/2ZnCl ₂	500ppb	100ppb	100ppb	50ppb
Carbaryl	63-25-2	C ₁₂ H ₁₁ NO ₂	10ppm	1ppm	10ppm	1ppm
Crystal Violet	548-62-9	C ₂₅ H ₃₀ ClN ₃	200ppb	25ppb	200ppb	25ppb
Deiquat Monohydrate	6385-62-2	C ₁₂ H ₁₂ Br ₂ N ₂ · H ₂ O	10ppm	5ppm	50ppm	5ppm
Malachite Green Chloride	569-64-2	C ₂₃ H ₂₅ ClN ₂	1ppm	1ppm	500ppb	500ppb
Melamine	108-78-1	C ₃ H ₆ N ₆	1ppm	1ppm	1ppm	250ppb
Phosmet	732-11-6	C ₁₁ H ₁₂ NO ₄ PS ₂	10ppm	500ppb	25ppm	5ppm
Rhodamine 6G	989-38-8	C ₂₈ H ₃₁ N ₂ O ₃ Cl	1ppm	50ppb	1ppm	500ppb
Sulfamethazine	57-68-1	C ₁₂ H ₁₄ N ₄ O ₂ S	1ppm	200ppb	5ppm	500ppb
Thiram	137-26-8	(CH ₃) ₂ NCSS ₂ CSN(CH ₃) ₂	5ppm	2ppm	10ppm	2ppm

* Different results have been reported by users with different Raman spectrometers, but not listed here.

** Other chemicals may have different detection limit.

