



---

## Certificate of Analysis

### VOC Mixture

**Agilent Part  
Number:****8500-5902****Sample Lot  
Number:****CA-0603**

This Certified Reference Material (CRM) was manufactured and verified in accordance with ULTRA's ISO 9001:2000 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
benzene	000071-43-2	31072	200.6 ± 1.0 µg/mL
bromobenzene	000108-86-1	CG-02513MF	200.6 ± 1.0 µg/mL
bromochloromethane	000074-97-5	JS-16015HS	200.4 ± 1.0 µg/mL
bromodichloromethane	000075-27-4	TG-09607TG	200.6 ± 1.0 µg/mL
bromoform	000075-25-2	DU-06126KS	200.6 ± 1.0 µg/mL
n-butylbenzene	000104-51-8	AA28519CO	200.8 ± 1.0 µg/mL
sec-butylbenzene	000135-98-8	MR11305DN	200.6 ± 1.0 µg/mL
tert-butylbenzene	000098-06-6	MQ04010MQ	200.5 ± 1.0 µg/mL
carbon tetrachloride	000056-23-5	01704MF	200.6 ± 1.0 µg/mL
chlorobenzene	000108-90-7	63148HZ	200.8 ± 1.0 µg/mL
chloroform	000067-66-3	BS-03041BS	200.4 ± 1.0 µg/mL
2-chlorotoluene	000095-49-8	KS06506BN	200.5 ± 1.0 µg/mL
4-chlorotoluene	000106-43-4	CR14512LQ	200.8 ± 1.0 µg/mL
dibromochloromethane	000124-48-1	DO-12622CI	200.6 ± 1.0 µg/mL
1,2-dibromo-3-chloropropane	000096-12-8	OGF01	200.8 ± 1.0 µg/mL
1,2-dibromoethane	000106-93-4	TB101777	200.4 ± 1.0 µg/mL
dibromomethane	000074-95-3	EM-01514TJ	200.6 ± 1.0 µg/mL
1,2-dichlorobenzene	000095-50-1	08946KY	200.6 ± 1.0 µg/mL
1,3-dichlorobenzene	000541-73-1	JN05902LZ	200.6 ± 1.0 µg/mL
1,4-dichlorobenzene	000106-46-7	HS05118MQ	200.6 ± 1.0 µg/mL
1,1-dichloroethane	000075-34-3	64552/1	200.6 ± 1.0 µg/mL

Balances used in the manufacture of this standard are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001.

## VOC Mixture

**Product** 8500-5902

**Page:** 2 of 3

**Lot Number:** CA-0603

**Lot Issue Date:** Apr-2004

**Expiration Date:** May-2007

Analyte	CAS#	Analyte Lot	True Value
1,2-dichloroethane	000107-06-2	KN-09446KN	200.6 ± 1.0 µg/mL
1,1-dichloroethene	000075-35-4	TG10721AG	201.0 ± 1.0 µg/mL
cis-1,2-dichloroethene	000156-59-2	09122TS	200.9 ± 1.0 µg/mL
trans-1,2-dichloroethene	000156-60-5	MU-09811JG	200.5 ± 1.0 µg/mL
1,2-dichloropropane	000078-87-5	DC120777	200.7 ± 1.0 µg/mL
1,3-dichloropropane	000142-28-9	PR-17916MR	200.7 ± 1.0 µg/mL
2,2-dichloropropane	000594-20-7	CI05304BI	200.4 ± 1.0 µg/mL
1,1-dichloropropene	000563-58-6	34768-21	200.4 ± 1.0 µg/mL
cis-1,3-dichloropropene	010061-01-5	35072-03	200.5 ± 1.0 µg/mL
trans-1,3-dichloropropene	010061-02-6	34257-41	200.7 ± 1.0 µg/mL
ethylbenzene	000100-41-4	033067	200.4 ± 1.0 µg/mL
hexachlorobutadiene	000087-68-3	PB082017	200.7 ± 1.0 µg/mL
isopropylbenzene	000098-82-8	EN621TG	200.6 ± 1.0 µg/mL
4-isopropyltoluene	000099-87-6	PP05104CP	200.8 ± 1.0 µg/mL
methylene chloride	000075-09-2	39104	200.5 ± 1.0 µg/mL
naphthalene	000091-20-3	N960012	200.5 ± 1.0 µg/mL
n-propylbenzene	000103-65-1	LO14503MR	200.4 ± 1.0 µg/mL
styrene	000100-42-5	MQ11228MQ	200.6 ± 1.0 µg/mL
1,1,1,2-tetrachloroethane	000630-20-6	CO12312LI	200.7 ± 1.0 µg/mL
1,1,2,2-tetrachloroethane	000079-34-5	MX13613DW	200.9 ± 1.0 µg/mL
tetrachloroethene	000127-18-4	PS-00344BR	200.7 ± 1.0 µg/mL
toluene	000108-88-3	34117	200.6 ± 1.0 µg/mL
1,2,3-trichlorobenzene	000087-61-6	LI12912PF	200.5 ± 1.0 µg/mL
1,2,4-trichlorobenzene	000120-82-1	00334TQ	200.7 ± 1.0 µg/mL

Balances used in the manufacture of this standard are calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z-540-1 and ISO 9001.

## VOC Mixture

**Product** 8500-5902

**Lot Number:** CA-0603

**Lot Issue Date:** Apr-2004

**Page:** 3 of 3

**Expiration Date:** May-2007

Analyte	CAS#	Analyte Lot	True Value
1,1,1-trichloroethane	000071-55-6	LU-13149TR	200.6 ± 1.0 µg/mL
1,1,2-trichloroethane	000079-00-5	JB070177	200.4 ± 1.0 µg/mL
trichloroethene	000079-01-6	KN-08846KN	200.7 ± 1.0 µg/mL
1,2,3-trichloropropane	000096-18-4	EY01328EY	200.6 ± 1.0 µg/mL
1,2,4-trimethylbenzene	000095-63-6	BO-13528BI	200.7 ± 1.0 µg/mL
1,3,5-trimethylbenzene	000108-67-8	KM02011HM	200.7 ± 1.0 µg/mL
o-xylene	000095-47-6	DO-06834CO	200.7 ± 1.0 µg/mL
m-xylene	000108-38-3	DI-00459CI	200.7 ± 1.0 µg/mL
p-xylene	000106-42-3	06306HY	200.5 ± 1.0 µg/mL

**Matrix:** methanol (methyl alcohol)

Balances used in the manufacture of this standard are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001.

**Date of release: 19 April, 2004**

**Date of expiration: 31 May, 2007**

*Edward Fitzgerald- PHD*

**Edward Fitzgerald**

**Senior Chemist**

Ultra Scientific, Inc