Supplemental Data for:

Sacks GL, Howe PA, Standing M and Danilewicz JC. 2020.

Free, bound, and total sulfur dioxide (SO_2) during oxidation of wines. Am J Enol Vitic 71:266-277. doi: 10.5344/ajev.2020.19083.

Supplemental Table 1 - Free, bound, and total SO_2 in wines during storage experiments.

Wine	Days post-bottling	Packaging	Hi temp?	Total SO_2 Rep A	Free SO_2 Rep A	Total SO_2 Rep B	Free SO_2 Rep B	Total SO_2 Rep C	Free SO_2 Rep C	Avg Total SO_2	Avg Free SO_2	Avg Bound SO_2
Chard	5	A	N	120	43	121	43	121	42	121	43	78
Chard	9	A	N	120	46	121	47	121	46	121	46	74
Chard	16	A	N	118	42	118	42	118	43	118	42	76
Chard	23	A	N	113	36	116	37	116	37	115	37	78
Chard	30	A	N	114	37	112	37	114	38	113	37	76
Chard	36	A	N	121	42	119	42	115	42	118	42	76
Chard	42	A	N	108	37	107	36	107	37	107	37	71
Chard	51	A	N	115	41	118	40	116	42	116	41	75
Chard	58	A	N	107	36	106	36	105	37	106	36	70
Chard	65	A	N	108	38	109	38	111	38	109	38	71
Chard	69	A	N	106	36	108	36	110	37	108	36	72
Chard	86	A	N	109	36	109	36	111	37	110	36	73
Chard	93	A	N	110	37	110	37	112	38	111	37	73
Chard	100	A	N	100	33	103	33	103	33	102	33	69
Chard	107	A	N	87	30	99	31	97	29	94	30	64
Chard	114	A	N	103	36	102	35	105	36	103	36	68
Chard	121	A	N	102	35	102	35	103	36	102	35	67
Chard	128	A	N	101	32	103	32	103	33	102	32	70
Chard	135	A	N	99	31	101	31	102	31	101	31	70
Chard	142	A	N	104	30	105	29	106	30	105	30	75
Chard	149	A	N	106	29	104	28	107	29	106	29	77
Chard	156	A	N	95	26	92	23	94	25	94	25	69
Chard	162	A	N	87	29	90	29	92	30	90	29	60
Chard	169	A	N	93	26	92	26	94	28	93	27	66
Chard	176	A	N	92	26	92	26	94	27	93	26	66
Chard	183	A	N	80	19	80	19	83	20	81	19	62
Chard	190	A	N	90	24	89	24	90	25	90	24	65
Chard	197	A	N	88	22	89	22	90	23	89	22	67
Chard	204	A	N	90	23	89	23	91	24	90	23	67
Chard	211	A	N	84	19	84	19	86	20	85	19	65
Chard	218	A	N	88	18	89	18	89	18	89	18	71
Chard	225	A	N	95	20	96	20	96	21	96	20	75
Chard	240	A	N	83	18	84	18	82	19	83	18	65
Chard	247	A	N	80	17	80	17	81	17	80	17	63
Chard	254	A	N	88	18	86	18	81	18	85	18	67
Chard	261	A	N	77	16	76	16	78	17	77	16	61
Chard	268	A	N	84	16	84	16	85	17	84	16	68
Chard	275	A	N	77	16	79	15	82	17	79	16	63
Chard	282	A	N	82	17	83	14	84	15	83	15	68
Chard	289	A	N	73	14	75	14	78	15	75	14	61
Chard	296	A	N	71	12	71	12	74	13	72	12	60
Chard	303	A	N	76	12	74	12	77	13	76	12	63
Chard	310	A	N	74	11	74	11	77	12	75	11	64
Chard	317	A	N	77	10	78	11	78	12	78	11	67
Chard	324	A	N	72	9	73	10	74	10	73	10	63
Chard	338	A	N	64	8	65	8	66	9	65	8	57
Chard	5	C	N	122	43	123	43	122	43	122	43	79
Chard	9	C	N	123	47	123	48	123	47	123	47	76
Chard	16	C	N	119	43	118	42	118	42	118	42	76
Chard	23	C	N	113	37	112	36	113	37	113	37	76
Chard	30	C	N	107	34	106	32	110	34	108	33	74
Chard	36	C	N	108	39	109	38	109	38	109	38	70
Chard	42	C	N	105	33	104	32	104	33	104	33	72
Chard	51	C	N	107	35	107	35	109	35	108	35	73
Chard	58	C	N	99	31	99	30	100	30	99	30	69
Chard	65	C	N	108	32	104	30	104	31	105	31	74
Chard	69	C	N	97	30	97	29	99	29	98	29	68
Chard	86	C	N	95	27	97	26	96	27	96	27	69
Chard	93	C	N	96	27	95	26	96	27	96	27	69
Chard	100	C	N	87	23	86	22	88	22	87	22	65
Chard	107	C	N	82	19	83	20	85	21	83	20	63
Chard	114	C	N	88	23	88	22	89	23	88	23	66
Chard	121	C	N	85	22	85	21	88	22	86	22	64
Chard	128	C	N	82	18	82	18	84	19	83	18	64
Chard	135	C	N	79	17	80	16	80	17	80	17	63
Chard	142	C	N	81	15	82	14	83	16	82	15	67
Chard	149	C	N	82	14	82	13	84	14	83	14	69
Chard	156	C	N	74	7	74	10	73	12	74	10	64
Chard	162	C	N	69	12	68	12	70	13	69	12	57
Chard	169	C	N	68	10	68	9	69	11	68	10	58
Chard	176	C	N	65	9	66	9	67	10	66	9	57
Chard	183	C	N	58	6	58	6	60	6	59	6	53
Chard	190	C	N	64	7	66	7	65	8	65	7	58
Chard	197	C	N	60	6	59	6	61	6	60	6	54
Chard	204	C	N	60	5	59	5	62	6	60	5	55
Chard	211	C	N	55	3	55	3	57	4	56	3	52
Chard	218	C	N	55	4	55	3	58	4	56	4	52
Chard	225	C	N	58	3	59	3	62	3	60	3	57
Chard	240	C	N	48	2	48	2	50	2	49	2	47
Chard	247	C	N	44	0	44	1	46	1	45	1	44
Chard	254	C	N	42	1	42	1	43	2	42	1	41
Chard	261	C	N	42	1	41	1	43	2	42	1	41
Chard	268	C	N	42	0	42	1	44	1	43	1	42
Chard	275	C	N	39	1	38	1	40	1	39	1	38
Chard	282	C	N	39	0	41	1	42	1	41	1	40
Chard	289	C	N	35	0	35	0	37	0	36	0	36
Chard	296	C	N	31	0	31	0	33	0	32	0	32
Chard	5	D	N	122	43	123	43	122	43	122	43	79
Chard	9	D	N	123	47	122	47	121	45	122	46	76
Chard	16	D	N	118	42	117	42	116	40	117	41	76
Chard	23	D	N	113	36	113	36	110	34	112	35	77
Chard	30	D	N	106	32	108	35	106	32	107	33	74
Chard	36	D	N	111	39	112	41	109	38	111	39	71
Chard	42	D	N	103	34	105	35	100	32	103	34	69
Chard	51	D	N	109	36	110	38	109	34	109	36	73
Chard	58	D	N	102	33	104	34	99	31	102	33	69
Chard	65	D	N	104	34	107	36	105	31	105	34	72
Chard	69	D	N	101	32	106	34	107	30	105	32	73
Chard	86	D	N	102	32	107	34	100	29	103	32	71
Chard	93	D	N	103	33	107	35	100	30	103	33	71
Chard	100	D	N	95	29	97	30	94	26	95	28	67
Chard	107	D	N	91	25	94	27	89	24	91	25	66
Chard	114	D	N	99	32	102	33			101	33	68
Chard	121	D	N	97	30	102	32			100	31	69
Chard	128	D	N	95	28	98	30			97	29	68
Chard	135	D	N	94	26	99	28			97	27	70
Chard	142	D	N	97	25	102	27			100	26	74

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Supplemental Table 1 - Free, bound, and total SO_2 in wines during storage experiments.

Wine	Days post-bottling	Packaging	Hi temp?	Total SO_2 Rep A	Free SO_2 Rep A	Total SO_2 Rep B	Free SO_2 Rep B	Total SO_2 Rep C	Free SO_2 Rep C	Avg Total SO_2	Avg Free SO_2	Avg Bound SO_2
Chard	149	D	N	99	25	103	27			101	26	75
Chard	156	D	N	87	22	96	24			92	23	69
Chard	162	D	N	88	26	91	28			90	27	63
Chard	169	D	N	86	22	89	24			88	23	65
Chard	176	D	N	86	22	90	24			88	23	65
Chard	183	D	N	76	16	80	18			78	17	61
Chard	190	D	N	88	20	89	22			89	21	68
Chard	197	D	N	82	19	85	20			84	20	64
Chard	204	D	N	87	20	90	23			89	22	67
Chard	211	D	N	80	17	83	20			82	19	63
Chard	218	D	N	86	16	89	19			88	18	70
Chard	225	D	N	92	17	96	20			94	19	76
Chard	240	D	N	44	1	79	16			62	9	53
Chard	247	D	N	74	14	78	16			76	15	61
Chard	254	D	N	74	15	80	17			77	16	61
Chard	261	D	N	76	14	80	17			78	16	63
Chard	268	D	N	78	13	85	16			82	15	67
Chard	275	D	N	75	14	80	17			78	16	62
Chard	282	D	N	79	13	85	15			82	14	68
Chard	289	D	N	71	12	76	15			74	14	60
Chard	296	D	N	68	11	72	13			70	12	58
Chard	303	D	N	73	11	77	13			75	12	63
Chard	310	D	N	70	10	76	12			73	11	62
Chard	317	D	N	74	9	78	12			76	11	66
Chard	324	D	N	69	9	74	11			72	10	62
Chard	5	A	Y	123	45	122	44			123	45	78
Chard	9	A	Y	116	45	119	46			118	46	72
Chard	16	A	Y	114	43	115	43			115	43	72
Chard	23	A	Y	110	35	110	34			110	35	76
Chard	30	A	Y	107	34	109	35			108	35	74
Chard	36	A	Y	115	38	115	38			115	38	77
Chard	42	A	Y	103	30	103	32			103	31	72
Chard	51	A	Y	104	38	103	38			104	38	66
Chard	58	A	Y	100	31	100	31			100	31	69
Chard	65	A	Y	99	31	99	32			99	32	68
Chard	69	A	Y	98	29	97	30			98	30	68
Chard	86	A	Y	94	25	91	24			93	25	68
Chard	93	A	Y	91	23	90	22			91	23	68
Chard	100	A	Y	85	18	82	18			84	18	66
Chard	107	A	Y	81	17	80	15			81	16	65
Chard	114	A	Y	81	16	80	17			81	17	64
Chard	121	A	Y	78	15	77	15			78	15	63
Chard	128	A	Y	79	12	78	12			79	12	67
Chard	135	A	Y	77	9	76	10			77	10	67
Chard	142	A	Y	81	8	80	8			81	8	73
Chard	149	A	Y	80	5	78	7			79	6	73
Chard	156	A	Y	69	5	68	4			69	5	64
Chard	162	A	Y	63	5	60	5			62	5	57
Chard	169	A	Y	64	3	63	4			64	4	60
Chard	176	A	Y	62	2	61	3			62	3	59
Chard	183	A	Y	59	2	57	2			58	2	56
Chard	190	A	Y	63	2	61	2			62	2	60
Chard	197	A	Y	58	1	57	1			58	1	57
Chard	204	A	Y	58	1	57	1			58	1	57
Chard	211	A	Y	56	0	53	0			55	0	55
Chard	218	A	Y	55	1	55	1			55	1	54
Chard	225	A	Y	59	0	56	0			58	0	58
Chard	240	A	Y	46	0	43	0			45	0	45
Chard	247	A	Y	45	0	43	0			44	0	44
Chard	254	A	Y	43	0	42	0			43	0	43
Chard	261	A	Y	42	0	39	0			41	0	41
Chard	268	A	Y	45	0	42	0			44	0	44
Chard	275	A	Y	41	0	39	0			40	0	40
Chard	282	A	Y	42	0	39	0			41	0	41
Chard	289	A	Y	39	0	36	0			38	0	38
Chard	296	A	Y	35	0	32	0			34	0	34
Chard	5	C	Y	125	45	124	45			125	45	80
Chard	9	C	Y	117	44	116	43			117	44	73
Chard	16	C	Y	110	37	109	36			110	37	73
Chard	23	C	Y	100	26	99	26			100	26	74
Chard	30	C	Y	86	19	82	17			84	18	66
Chard	36	C	Y	81	18	79	16			80	17	63
Chard	42	C	Y	73	12	72	11			73	12	61
Chard	51	C	Y	73	13	71	12			72	13	60
Chard	58	C	Y	66	7	62	6			64	7	58
Chard	65	C	Y	57	4	56	4			57	4	53
Chard	69	C	Y	53	2	48	2			51	2	49
Chard	86	C	Y	37	0	28	0			33	0	33
Chard	93	C	Y	33	0	24	1			29	1	28
Chard	100	C	Y	25	0	15	0			20	0	20
Chard	107	C	Y	20	0	11	1			16	1	15
Chard	114	C	Y	15	0	4	0			10	0	10
Chard	121	C	Y	13	0	4	0			9	0	9
Chard	128	C	Y	10	0	2	0			6	0	6
Chard	135	C	Y	7	0	0	0			4	0	4
Chard	142	C	Y	5	0	0	0			3	0	3
Chard	149	C	Y	4	0	0	0			2	0	2
Chard	156	C	Y	3	0	2	0			3	0	3
Chard	162	C	Y	0	0	0	0			0	0	0
Chard	169	C	Y	1	0	0	0			1	0	1
Chard	176	C	Y	0	0	0	0			0	0	0
Chard	183	C	Y	0	0	0	0			0	0	0
Chard	190	C	Y	0	0	0	0			0	0	0
Chard	197	C	Y	2	0	1	0			2	0	2
Chard	204	C	Y	0	0	0	0			0	0	0
Chard	211	C	Y	1	0	0	0			1	0	1
Chard	218	C	Y	0	0	0	0			0	0	0
Chard	225	C	Y	0	0	0	0			0	0	0
Chard	240	C	Y	0	0	0	0			0	0	0
Chard	247	C	Y	0	0	0	0			0	0	0
Chard	254	C	Y	0	0	0	0			0	0	0
Chard	261	C	Y	0	0	0	0			0	0	0
Chard	268	C	Y	0	0	0	0			0	0	0
Chard	275	C	Y	0	0	0	0			0	0	0
Chard	282	C	Y	0	0	0	0			0	0	0
Chard	289	C	Y	0	0	0	0			0	0	0
Chard	296	C	Y	0	0	0	0			0	0	0

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Wine	Days post-bottling	Packaging	Hi temp?	Total SO_2 Rep A	Free SO_2 Rep A	Total SO_2 Rep B	Free SO_2 Rep B	Total SO_2 Rep C	Free SO_2 Rep C	Avg Total SO_2	Avg Free SO_2	Avg Bound SO_2
Chard	5	D	Y	126	45	125	46			126	46	80
Chard	9	D	Y	118	44	115	42			117	43	74
Chard	16	D	Y	112	38	110	37			111	38	74
Chard	23	D	Y	106	32	103	30			105	31	74
Chard	30	D	Y	100	30	96	25			98	28	71
Chard	36	D	Y	100	32	98	30			99	31	68
Chard	42	D	Y	94	27	92	25			93	26	67
Chard	51	D	Y	99	33	95	29			97	31	66
Chard	58	D	Y	93	26	91	24			92	25	67
Chard	65	D	Y	96	26	91	24			94	25	69
Chard	69	D	Y	92	24	83	22			88	23	65
Chard	86	D	Y	88	21	82	17			85	19	66
Chard	93	D	Y	85	20	79	15			82	18	65
Chard	100	D	Y	78	16	73	12			76	14	62
Chard	107	D	Y	74	16	70	12			72	14	58
Chard	114	D	Y	78	16	72	12			75	14	61
Chard	121	D	Y	74	15	69	11			72	13	59
Chard	128	D	Y	73	12	68	9			71	11	60
Chard	135	D	Y	71	11	65	8			68	10	59
Chard	142	D	Y	75	10	67	7			71	9	63
Chard	149	D	Y	75	9	68	6			72	8	64
Chard	156	D	Y	66	8	60	4			63	6	57
Chard	162	D	Y	63	8	56	6			60	7	53
Chard	169	D	Y	62	7	55	4			59	6	53
Chard	176	D	Y	61	6	56	4			59	5	54
Chard	183	D	Y	55	4	51	3			53	4	50
Chard	190	D	Y	61	5	54	3			58	4	54
Chard	197	D	Y	56	4	50	3			53	4	50
Chard	204	D	Y	58	4	51	2			55	3	52
Chard	211	D	Y	54	2	49	1			52	2	50
Chard	218	D	Y	54	3	50	2			52	3	50
Chard	225	D	Y	58	3	52	2			55	3	53
Chard	240	D	Y	50	2	48	2			49	2	47
Chard	247	D	Y	45	1	40	1			43	1	42
Chard	254	D	Y	44	2	38	1			41	2	40
Chard	261	D	Y	43	2	38	1			41	2	39
Chard	268	D	Y	44	1	38	0			41	1	41
Chard	275	D	Y	41	1	35	1			38	1	37
Chard	282	D	Y	42	1	38	0			40	1	40
Chard	289	D	Y	39	1	34	0			37	1	36
Chard	296	D	Y	36	1	30	0			33	1	33
CS	9	K	N	102	44	101	43	102	44	102	44	58
CS	23	K	N	102	42	103	41	101	41	102	41	61
CS	29	K	N	99	40	95	40	100	40	98	40	58
CS	37	K	N	98	42	97	42	99	42	98	42	56
CS	41	K	N	101	42	96	41	97	42	98	42	56
CS	58	K	N	94	38	93	38	95	38	94	38	56
CS	65	K	N	91	40	92	39			92	40	52
CS	72	K	N	92	36	93	35	91	35	92	35	57
CS	79	K	N	89	42	90	41	92	42	90	42	49
CS	85	K	N	93	40	93	40	95	40	94	40	54
CS	93	K	N	90	36	89	35	89	35	89	35	54
CS	100	K	N	94	38	95	38	94	38	94	38	56
CS	107	K	N	85	34	85	33	85	33	85	33	52
CS	114	K	N	81	29	81	29	82	29	81	29	52
CS	121	K	N	89	33	89	32	89	32	89	32	57
CS	135	K	N	79	33	80	33	81	33	80	33	47
CS	142	K	N	80	30	80	30	81	30	80	30	50
CS	149	K	N	77	29	80	30	79	30	79	30	49
CS	156	K	N	73	26	75	28	76	27	75	27	48
CS	163	K	N	73	29	73	29	73	29	73	29	44
CS	170	K	N	78	29	78	30	79	29	78	29	49
CS	212	K	N	64	21	65	22	64	22	64	22	43
CS	219	K	N	65	23	67	23	66	23	66	23	43
CS	226	K	N	63	21	64	21	64	21	64	21	43
CS	233	K	N	62	19	62	20	61	20	62	20	42
CS	240	K	N	59	19	61	20	61	20	60	20	41
CS	247	K	N	61	21	62	21	61	21	61	21	40
CS	254	K	N	56	19	56	19	56	19	56	19	37
CS	261	K	N	56	18	57	18	58	18	57	18	39
CS	268	K	N	55	16	57	17	58	17	57	17	40
CS	275	K	N	56	17	58	18	57	18	57	18	39
CS	282	K	N	53	15	55	16	56	16	55	16	39
CS	289	K	N	56	15	57	16	58	16	57	16	41
CS	296	K	N	51	14	51	14	52	14	51	14	37
CS	303	K	N	50	14	51	14	51	14	51	14	37
CS	310	K	N	45	12	47	13	47	13	46	13	34
CS	324	K	N	42	12	45	13	45	13	44	13	31
CS	331	K	N	39	11	42	12	42	12	41	12	29
CS	338	K	N	45	11	47	12	46	11	46	11	35
CS	345	K	N	42	10	43	11	43	11	43	11	32
CS	352	K	N	38	10	41	11	41	11	40	11	29
CS	359	K	N	40	9	41	10	42	10	41	10	31
CS	366	K	N	35	9	39	9	39	9	38	9	29
CS	373	K	N	35	9	38	10	37	10	37	10	27
CS	387	K	N	33	8	36	8	35	8	35	8	27
CS	394	K	N	34	7	36	8	37	8	36	8	28
CS	9	L	N	102	44	102	43	102	43	102	43	59
CS	23	L	N	101	41	103	41	102	41	102	41	61
CS	29	L	N	98	38	101	37	98	38	99	38	61
CS	37	L	N	93	39	92	39	91	38	92	39	53
CS	41	L	N	93	38	91	38	92	37	92	38	54
CS	58	L	N	87	33	87	34	83	32	86	33	53
CS	65	L	N	83	34	84	34	81	33	83	34	49
CS	72	L	N	82	31	83	31	80	29	82	30	51
CS	79	L	N	79	35	80	35	78	34	79	35	44
CS	85	L	N	79	32	80	32	79	30	79	31	48
CS	93	L	N	75	28	77	28	75	26	76	27	48
CS	100	L	N	76	26	77	28	74	27	76	27	49
CS	107	L	N	70	23	69	25	68	23	69	24	45
CS	114	L	N	63	20	66	22	63	20	64	21	43
CS	121	L	N	65	21	66	22	64	20	65	21	44
CS	135	L	N	55	19	56	20	55	18	55	19	36

Supplemental Data for:

Sacks GL, Howe PA, Standing M and Danilewicz JC. 2020.

Free, bound, and total sulfur dioxide (SO_2) during oxidation of wines. Am J Enol Vitic 71:266-277. doi: 10.5344/ajev.2020.19083.

Supplemental Table 1 - Free, bound, and total SO_2 in wines during storage experiments.

Wine	Days post-bottling	Packaging	Hi temp?	Total SO_2 Rep A	Free SO_2 Rep A	Total SO_2 Rep B	Free SO_2 Rep B	Total SO_2 Rep C	Free SO_2 Rep C	Avg Total SO_2	Avg Free SO_2	Avg Bound SO_2
CS	142	L	N	53	16	56	18	53	16	54	17	37
CS	149	L	N	51	15	53	16	49	15	51	15	36
CS	156	L	N	45	13	48	14	44	12	46	13	33
CS	163	L	N	43	12	46	13	41	12	43	12	31
CS	170	L	N	43	11	47	13	43	11	44	12	33
CS	212	L	N	20	2	23	3	19	2	21	2	18
CS	219	L	N	22	4	22	3	25	4	23	4	19
CS	226	L	N	14	1	17	2	14	1	15	1	14
CS	233	L	N	12	1	15	1	11	1	13	1	12
CS	240	L	N	9	0	11	1	8	0	9	0	9
CS	247	L	N	7	0	10	0	6	0	8	0	8
CS	254	L	N	6	0	8	0	5	0	6	0	6
CS	261	L	N	3	0	6	0	4	0	4	0	4
CS	268	L	N	4	0	5	0	4	0	4	0	4
CS	275	L	N	4	0	5	0	5	0	5	0	5
CS	282	L	N	5	0	6	0	4	0	5	0	5
CS	289	L	N	3	0	4	0	4	0	4	0	4
CS	9	M	N	102	44	103	44	102	44	102	44	58
CS	23	M	N	111	41	99	40	99	40	103	40	63
CS	29	M	N	98	38	99	38	99	38	99	38	61
CS	37	M	N	100	39	90	38	91	39	94	39	55
CS	41	M	N	93	38	96	37	93	38	94	38	56
CS	58	M	N	86	33	87	33	87	33	87	33	54
CS	65	M	N	80	34	82	34	83	34	82	34	48
CS	72	M	N	78	40	81	29	82	29	80	33	48
CS	79	M	N	77	35	78	35	78	35	78	35	43
CS	85	M	N	76	31	78	32	78	32	77	32	46
CS	93	M	N	72	27	73	26	73	27	73	27	46
CS	100	M	N	72	26	74	26	74	27	73	26	47
CS	107	M	N	64	23	66	23	67	23	66	23	43
CS	114	M	N	60	19	62	19	62	20	61	19	42
CS	121	M	N	62	19	63	20	65	20	63	20	44
CS	135	M	N	51	17	53	18	54	18	53	18	35
CS	142	M	N	49	14	51	15	51	15	50	15	36
CS	149	M	N	46	13	48	14	48	14	47	14	34
CS	156	M	N	40	10	43	11	43	12	42	11	31
CS	163	M	N	37	10	40	10	40	11	39	10	29
CS	170	M	N	37	9	40	10	41	10	39	10	30
CS	212	M	N	17	1	17	1	14	0	16	1	15
CS	219	M	N	7	0	9	0	8	0	8	0	8
CS	226	M	N	8	0	11	1	11	0	10	0	10
CS	233	M	N	7	0	8	0	9	0	8	0	8
CS	240	M	N	0	0	4	0	6	0	3	0	3
CS	247	M	N	4	0	5	0	5	0	5	0	5
CS	254	M	N	4	0	4	0	5	0	4	0	4
CS	9	N	N	104	44	102	44	104	45	103	44	59
CS	23	N	N	104	44	102	42	103	41	103	42	61
CS	29	N	N	108	41	104	41	101	41	104	41	63
CS	37	N	N	101	43	97	41	98	42	99	42	57
CS	41	N	N	99	44	96	42	96	42	97	43	54
CS	58	N	N	96	40	92	38	92	38	93	39	55
CS	65	N	N	93	41	91	39	92	40	92	40	52
CS	72	N	N	94	38	94	38	93	35	94	37	57
CS	79	N	N	92	44	88	42	89	41	90	42	47
CS	85	N	N	94	41	92	39	93	38	93	39	54
CS	93	N	N	90	37	88	34	88	34	89	35	54
CS	100	N	N	96	39	92	37	93	37	94	38	56
CS	107	N	N	87	35	85	32	84	33	85	33	52
CS	114	N	N	82	30	79	29	81	29	81	29	51
CS	121	N	N	89	33	86	30	86	31	87	31	56
CS	135	N	N	81	33	76	31	78	31	78	32	47
CS	142	N	N	79	30	78	29	79	28	79	29	50
CS	149	N	N	79	29	77	28	76	28	77	28	49
CS	156	N	N	74	26	71	26	70	26	72	26	46
CS	163	N	N	72	29	70	27	70	27	71	28	43
CS	170	N	N	77	29	76	28	76	28	76	28	48
CS	212	N	N	62	20	60	20	60	20	61	20	41
CS	219	N	N	65	21	62	21	62	20	63	21	42
CS	226	N	N	59	19	58	18	58	18	58	18	40
CS	233	N	N	58	18	56	17	56	17	57	17	39
CS	240	N	N	56	17	55	17	54	16	55	17	38
CS	247	N	N	57	19	57	18	56	18	57	18	38
CS	254	N	N	52	16	51	16	50	16	51	16	35
CS	261	N	N	53	15	51	15	50	14	51	15	37
CS	268	N	N	50	14	49	14	48	13	49	14	35
CS	275	N	N	51	14	50	14	48	14	50	14	36
CS	282	N	N	49	13	47	12	45	12	47	12	35
CS	289	N	N	50	12	48	12	48	12	49	12	37
CS	296	N	N	45	11	43	10	43	10	44	10	33
CS	303	N	N	45	11	43	10	43	10	44	10	33
CS	310	N	N	41	10	39	9	37	9	39	9	30
CS	324	N	N	39	9	37	9	35	8	37	9	28
CS	331	N	N	34	9	32	8	34	8	33	8	25
CS	338	N	N	37	8	37	8	36	7	37	8	29
CS	345	N	N	35	8	32	7	33	7	33	7	26
CS	352	N	N	33	7	32	7	29	6	31	7	25
CS	359	N	N	33	7	31	6	31	6	32	6	25
CS	366	N	N	29	6	28	5	27	5	28	5	23
CS	373	N	N	28	6	27	6	26	5	27	6	21
CS	387	N	N	26	5	25	4	24	4	25	4	21
CS	394	N	N	28	4	26	4	24	4	26	4	22
CS	9	O	N	102	44	101	43	102	44	102	44	58
CS	23	O	N	102	42	103	41	101	41	102	41	61
CS	29	O	N	99	40	95	40	100	40	98	40	58
CS	37	O	N	98	42	97	42	99	42	98	42	56
CS	41	O	N	101	42	96	41	97	42	98	42	56
CS	58	O	N	94	38	93	38	95	38	94	38	56
CS	65	O	N	91	40	92	39			92	40	52
CS	72	O	N	92	36	93	35	91	35	92	35	57
CS	79	O	N	89	42	90	41	92	42	90	42	49
CS	85	O	N	93	40	93	40	95	40	94	40	54
CS	93	O	N	90	36	89	35	89	35	89	35	54
CS	100	O	N	94	38	95	38	94	38	94	38	56
CS	107	O	N	85	34	85	33	85	33	85	33	52
CS	114	O	N	81	29	81	29	82	29	81	29	52
CS	121	O	N	89	33	89	32	89	32	89	32	57
CS	135	O	N	79	33	80	33	81	33	80	33	47
CS	142	O	N	80	30	80	30	81	30	80	30	50
CS	149	O	N	77	29	80	30	79	30	79	30	49

Supplemental Data for:

Sacks GL, Howe PA, Standing M and Danilewicz JC. 2020.

Free, bound, and total sulfur dioxide (SO_2) during oxidation of wines. Am J Enol Vitic 71:266-277. doi: 10.5344/ajev.2020.19083.

Supplemental Table 1 - Free, bound, and total SO_2 in wines during storage experiments.

Wine	Days post-bottling	Packaging	Hi temp?	Total SO_2 Rep A	Free SO_2 Rep A	Total SO_2 Rep B	Free SO_2 Rep B	Total SO_2 Rep C	Free SO_2 Rep C	Avg Total SO_2	Avg Free SO_2	Avg Bound SO_2
CS	156	O	N	73	26	75	28	76	27	75	27	48
CS	163	O	N	73	29	73	29	73	29	73	29	44
CS	170	O	N	78	29	78	30	79	29	78	29	49
CS	212	O	N	64	21	65	22	64	22	64	22	43
CS	219	O	N	65	23	67	23	66	23	66	23	43
CS	226	O	N	63	21	64	21	64	21	64	21	43
CS	233	O	N	62	19	62	20	61	20	62	20	42
CS	240	O	N	59	19	61	20	61	20	60	20	41
CS	247	O	N	61	21	62	21	61	21	61	21	40
CS	254	O	N	56	19	56	19	56	19	56	19	37
CS	261	O	N	56	18	57	18	58	18	57	18	39
CS	268	O	N	55	16	57	17	58	17	57	17	40
CS	275	O	N	56	17	58	18	57	18	57	18	39
CS	282	O	N	53	15	55	16	56	16	55	16	39
CS	289	O	N	56	15	57	16	58	16	57	16	41
CS	296	O	N	51	14	51	14	52	14	51	14	37
CS	303	O	N	50	14	51	14	51	14	51	14	37
CS	310	O	N	45	12	47	13	47	13	46	13	34
CS	324	O	N	42	12	45	13	45	13	44	13	31
CS	331	O	N	39	11	42	12	42	12	41	12	29
CS	338	O	N	45	11	47	12	46	11	46	11	35
CS	345	O	N	42	10	43	11	43	11	43	11	32
CS	352	O	N	38	10	41	11	41	11	40	11	29
CS	359	O	N	40	9	41	10	42	10	41	10	31
CS	366	O	N	35	9	39	9	39	9	38	9	29
CS	373	O	N	35	9	38	10	37	10	37	10	27
CS	387	O	N	33	8	36	8	35	8	35	8	27
CS	394	O	N	34	7	36	8	37	8	36	8	28
CS	9	K	Y	103	47					103	47	56
CS	23	K	Y	90	34					90	34	56
CS	29	K	Y	73	26					73	26	47
CS	37	K	Y	72	25					72	25	47
CS	41	K	Y	63	22					63	22	41
CS	58	K	Y	47	13					47	13	34
CS	65	K	Y	40	10					40	10	30
CS	72	K	Y	35	6					35	6	29
CS	79	K	Y	29	6					29	6	23
CS	85	K	Y	24	4					24	4	20
CS	93	K	Y	19	1					19	1	18
CS	100	K	Y	13	0					13	0	13
CS	107	K	Y	8	0					8	0	8
CS	114	K	Y	5	0					5	0	5
CS	121	K	Y	0	0					0	0	0
CS	135	K	Y	2	0					2	0	2
CS	142	K	Y	1	0					1	0	1
CS	149	K	Y	2	0					2	0	2
CS	156	K	Y	2	0					2	0	2
CS	163	K	Y	2	0					2	0	2
CS	170	K	Y	3	0					3	0	3
CS	212	K	Y	0	0					0	0	0
CS	9	L	Y	102	44					102	44	58
CS	23	L	Y	87	33					87	33	54
CS	29	L	Y	101	37					101	37	64
CS	37	L	Y	67	25					67	25	42
CS	41	L	Y	65	22					65	22	43
CS	58	L	Y	49	13					49	13	36
CS	65	L	Y	42	11					42	11	31
CS	72	L	Y	36	7					36	7	29
CS	79	L	Y	31	7					31	7	24
CS	85	L	Y	26	4					26	4	22
CS	93	L	Y	20	1					20	1	19
CS	100	L	Y	14	1					14	1	13
CS	107	L	Y	9	0					9	0	9
CS	114	L	Y	6	0					6	0	6
CS	121	L	Y	0	0					0	0	0
CS	135	L	Y	2	0					2	0	2
CS	142	L	Y	1	0					1	0	1
CS	149	L	Y	1	0					1	0	1
CS	156	L	Y	2	0					2	0	2
CS	163	L	Y	2	0					2	0	2
CS	170	L	Y	2	0					2	0	2
CS	212	L	Y	0	0					0	0	0
CS	219	L	Y	0	0					0	0	0
CS	9	M	Y	101	44					101	44	57
CS	23	M	Y	87	32					87	32	55
CS	29	M	Y	74	25					74	25	49
CS	37	M	Y	68	23					68	23	45
CS	41	M	Y	62	22					62	22	40
CS	58	M	Y	45	11					45	11	34
CS	65	M	Y	37	8					37	8	29
CS	72	M	Y	31	4					31	4	27
CS	79	M	Y	24	4					24	4	20
CS	85	M	Y	18	2					18	2	16
CS	93	M	Y	12	0					12	0	12
CS	100	M	Y	8	0					8	0	8
CS	107	M	Y	3	0					3	0	3
CS	114	M	Y	0	0					0	0	0
CS	121	M	Y	0	0					0	0	0
CS	135	M	Y	2	0					2	0	2
CS	142	M	Y	1	0					1	0	1
CS	149	M	Y	2	0					2	0	2
CS	156	M	Y	1	0					1	0	1

Supplemental Data for:

Sacks GL, Howe PA, Standing M and Danilewicz JC. 2020.

Free, bound, and total sulfur dioxide (SO_2) during oxidation of wines. Am J Enol Vitic 71:266-277. doi: 10.5344/ajev.2020.19083.

Supplemental Table 1 - Free, bound, and total SO_2 in wines during storage experiments.

Wine	Days post-bottling	Packaging	Hi temp?	Total SO_2 Rep A	Free SO_2 Rep A	Total SO_2 Rep B	Free SO_2 Rep B	Total SO_2 Rep C	Free SO_2 Rep C	Avg Total SO_2	Avg Free SO_2	Avg Bound SO_2
CS	163	M	Y	2	0					2	0	2
CS	170	M	Y	2	0					2	0	2
CS	9	N	Y	104	46					104	46	58
CS	23	N	Y	84	32					84	32	52
CS	29	N	Y	94	35					94	35	59
CS	37	N	Y	88	35					88	35	53
CS	41	N	Y	84	34					84	34	50
CS	58	N	Y	75	27					75	27	48
CS	65	N	Y	73	27					73	27	46
CS	72	N	Y	69	22					69	22	47
CS	79	N	Y	66	25					66	25	41
CS	85	N	Y	66	23					66	23	43
CS	93	N	Y	60	18					60	18	42
CS	100	N	Y	62	20					62	20	42
CS	107	N	Y	55	15					55	15	40
CS	114	N	Y	50	13					50	13	37
CS	121	N	Y	52	12					52	12	40
CS	135	N	Y	41	12					41	12	29
CS	142	N	Y	39	10					39	10	29
CS	149	N	Y	38	9					38	9	29
CS	156	N	Y	33	7					33	7	26
CS	163	N	Y	31	7					31	7	24
CS	170	N	Y	33	7					33	7	26
CS	212	N	Y	15	1					15	1	14
CS	219	N	Y	16	2					16	2	14
CS	226	N	Y	13	1					13	1	12
CS	233	N	Y	11	1					11	1	10
CS	240	N	Y	10	1					10	1	9
CS	247	N	Y	9	1					9	1	8
CS	254	N	Y	9	0					9	0	9
CS	261	N	Y	7	0					7	0	7
CS	268	N	Y	6	0					6	0	6
CS	275	N	Y	5	0					5	0	5
CS	282	N	Y	5	0					5	0	5
CS	289	N	Y	0	0					0	0	0
CS	296	N	Y	0	0					0	0	0
CS	9	O	Y	102	44					102	44	58
CS	23	O	Y	95	37					95	37	58
CS	29	O	Y	90	34					90	34	56
CS	37	O	Y	84	34					84	34	50
CS	41	O	Y	85	33					85	33	52
CS	58	O	Y	75	26					75	26	49
CS	65	O	Y	71	26					71	26	45
CS	72	O	Y	62	22					62	22	40
CS	79	O	Y	65	26					65	26	39
CS	85	O	Y	66	24					66	24	42
CS	93	O	Y	63	19					63	19	44
CS	100	O	Y	64	20					64	20	44
CS	107	O	Y	56	16					56	16	40
CS	114	O	Y	50	13					50	13	37
CS	121	O	Y	52	13					52	13	39
CS	135	O	Y	45	13					45	13	32
CS	142	O	Y	41	10					41	10	31
CS	149	O	Y	39	10					39	10	29
CS	156	O	Y	35	8					35	8	27
CS	163	O	Y	33	8					33	8	25
CS	170	O	Y	36	8					36	8	28
CS	212	O	Y	20	2					20	2	18
CS	219	O	Y	20	3					20	3	17
CS	226	O	Y	17	2					17	2	15
CS	233	O	Y	15	2					15	2	13
CS	240	O	Y	13	2					13	2	11
CS	247	O	Y	12	1					12	1	11
CS	254	O	Y	11	1					11	1	10
CS	261	O	Y	9	1					9	1	8
CS	268	O	Y	8	0					8	0	8
CS	275	O	Y	8	0					8	0	8
CS	282	O	Y	6	0					6	0	6
CS	289	O	Y	7	0					7	0	7
CS	296	O	Y	5	0					5	0	5
CS	303	O	Y	5	0					5	0	5
CS	310	O	Y	2	0					2	0	2
CS	324	O	Y	2	0					2	0	2
CS	331	O	Y	3	1					3	1	2
CS	338	O	Y	3	0					3	0	3
CS	345	O	Y	2	0					2	0	2
CS	352	O	Y	0	0					0	0	0
CS	359	O	Y	0	0					0	0	0
CS	366	O	Y	0	0					0	0	0
CS	373	O	Y	0	0					0	0	0
CS	387	O	Y	0	0					0	0	0
CS	394	O	Y	0	0					0	0	0
Merlot	5	A	N	133	52	131	52	133	52	132	52	80
Merlot	9	A	N	128	52	128	52	128	52	128	52	76
Merlot	16	A	N	122	47	122	47	122	47	122	47	75
Merlot	23	A	N	119	43	118	43	118	43	118	43	75
Merlot	30	A	N	117	44	116	44	104	35	112	41	71
Merlot	36	A	N	122	47	124	47	125	47	124	47	77
Merlot	42	A	N	119	43	115	45	115	46	116	45	72
Merlot	51	A	N	114	43	116	43	116	43	115	43	72

Supplemental Data for:

Sacks GL, Howe PA, Standing M and Danilewicz JC. 2020.

Free, bound, and total sulfur dioxide (SO_2) during oxidation of wines. Am J Enol Vitic 71:266-277. doi: 10.5344/ajev.2020.19083.

Supplemental Table 1 - Free, bound, and total SO_2 in wines during storage experiments.

Wine	Days post-bottling	Packaging	Hi temp?	Total SO_2 Rep A	Free SO_2 Rep A	Total SO_2 Rep B	Free SO_2 Rep B	Total SO_2 Rep C	Free SO_2 Rep C	Avg Total SO_2	Avg Free SO_2	Avg Bound SO_2
Merlot	58	A	N	106	35	109	35	104	33	106	34	72
Merlot	65	A	N	109	39	109	39	110	39	109	39	70
Merlot	69	A	N	112	40	113	40	113	40	113	40	73
Merlot	86	A	N	105	38	106	38	107	38	106	38	68
Merlot	93	A	N	100	38	100	38	102	38	101	38	63
Merlot	100	A	N	106	37	105	37	105	37	105	37	68
Merlot	107	A	N	103	37	104	37	104	37	104	37	67
Merlot	114	A	N	106	40	106	39	107	40	106	40	67
Merlot	121	A	N	103	37	104	37	103	37	103	37	66
Merlot	128	A	N	96	34	97	34	97	34	97	34	63
Merlot	135	A	N	98	35	102	34	100	35	100	35	65
Merlot	142	A	N	96	33	97	32	99	33	97	33	65
Merlot	149	A	N	97	33	97	32	97	32	97	32	65
Merlot	156	A	N	87	32	87	33	87	33	87	33	54
Merlot	162	A	N	95	32	97	33	93	33	95	33	62
Merlot	169	A	N	94	32	95	32	97	33	95	32	63
Merlot	176	A	N	93	33	94	33	94	34	94	33	60
Merlot	183	A	N	86	29	87	29	88	30	87	29	58
Merlot	190	A	N	89	31	88	31	89	32	89	31	57
Merlot	197	A	N	87	29	89	29	89	29	88	29	59
Merlot	204	A	N	85	29	87	29	87	30	86	29	57
Merlot	211	A	N	87	29	88	30	89	30	88	30	58
Merlot	218	A	N	91	28	92	29	93	29	92	29	63
Merlot	225	A	N	87	25	87	25	88	26	87	25	62
Merlot	240	A	N	77	24	80	25	80	25	79	25	54
Merlot	247	A	N	81	25	83	26	83	27	82	26	56
Merlot	254	A	N	77	24	79	24	80	25	79	24	54
Merlot	261	A	N	74	21	75	22	76	23	75	22	53
Merlot	268	A	N	70	21	71	21	71	22	71	21	49
Merlot	275	A	N	76	23	76	24	78	24	77	24	53
Merlot	282	A	N	69	20	70	21	71	21	70	21	49
Merlot	289	A	N	69	19	70	20	73	20	71	20	51
Merlot	296	A	N	66	19	67	19	68	20	67	19	48
Merlot	303	A	N	70	19	69	19	72	20	70	19	51
Merlot	310	A	N	66	16	68	18	68	18	67	17	50
Merlot	317	A	N	69	16	70	18	72	18	70	17	53
Merlot	324	A	N	63	16	65	16	66	17	65	16	48
Merlot	331	A	N	62	16	62	16	64	17	63	16	46
Merlot	338	A	N	57	15	59	16	60	16	59	16	43
Merlot	5	C	N	130	51	129	50	130	50	130	50	79
Merlot	9	C	N	128	52	126	51	126	51	127	51	75
Merlot	16	C	N	120	46	117	44	117	44	118	45	73
Merlot	23	C	N	115	42	111	39	110	39	112	40	72
Merlot	30	C	N	109	39	107	38	111	39	109	39	70
Merlot	36	C	N	114	42	112	41	115	41	114	41	72
Merlot	42	C	N	105	41	102	40	102	40	103	40	63
Merlot	51	C	N	103	38	100	36	100	37	101	37	64
Merlot	58	C	N	105	39	99	36	101	34	102	36	65
Merlot	65	C	N	96	33	94	31	92	31	94	32	62
Merlot	69	C	N	94	33	93	31	93	31	93	32	62
Merlot	86	C	N	90	31	87	28	89	29	89	29	59
Merlot	93	C	N	85	30	82	28	83	29	83	29	54
Merlot	100	C	N	86	28	93	26	86	28	88	27	61
Merlot	107	C	N	82	27	79	26	83	26	81	26	55
Merlot	114	C	N	82	29	79	27	81	28	81	28	53
Merlot	121	C	N	80	26	76	24	80	26	79	25	53
Merlot	128	C	N	74	23	72	21	76	23	74	22	52
Merlot	135	C	N	72	21	70	20	72	22	71	21	50
Merlot	142	C	N	69	19	69	20	69	20	69	20	49
Merlot	149	C	N	69	19	66	17	69	19	68	18	50
Merlot	156	C	N	53	18	52	16	56	18	54	17	36
Merlot	162	C	N	62	17	59	16	63	18	61	17	44
Merlot	169	C	N	57	16	56	15	59	16	57	16	42
Merlot	176	C	N	55	15	52	14	56	16	54	15	39
Merlot	183	C	N	49	13	48	12	51	13	49	13	37
Merlot	190	C	N	47	12	45	11	48	13	47	12	35
Merlot	197	C	N	45	10	44	10	47	11	45	10	35
Merlot	204	C	N	42	9	40	9	44	10	42	9	33
Merlot	211	C	N	41	9	40	8	45	10	42	9	33
Merlot	218	C	N	37	7	36	7	39	8	37	7	30
Merlot	225	C	N	39	6	37	6	41	7	39	6	33
Merlot	240	C	N	23	2	22	2	26	3	24	2	21
Merlot	247	C	N	23	3	21	2	26	4	23	3	20
Merlot	254	C	N	18	1	16	1	21	2	18	1	17
Merlot	261	C	N	15	1	14	1	18	2	16	1	14
Merlot	268	C	N	11	1	9	0	14	0	11	0	11
Merlot	275	C	N	10	1	8	0	13	1	10	1	10
Merlot	282	C	N	8	0	7	0	10	0	8	0	8
Merlot	289	C	N	6	0	5	0	8	0	6	0	6
Merlot	296	C	N	5	0	3	0	3	0	4	0	4
Merlot	5	D	N	125	49	131	50	128	48	128	49	79
Merlot	9	D	N	121	48	124	51	119	47	121	49	73
Merlot	16	D	N	114	42	119	45	106	38	113	42	71
Merlot	23	D	N	109	39	116	42	94	31	106	37	69
Merlot	30	D	N	103	35	109	38	83	25	98	33	66
Merlot	36	D	N	111	41	118	44	109	37	113	41	72
Merlot	42	D	N	106	41	113	45	70	24	96	37	60
Merlot	51	D	N	103	38	110	41	66	19	93	33	60
Merlot	58	D	N	99	36	107	39	57	16	88	30	57
Merlot	65	D	N	96	34	109	36	61	12	89	27	61
Merlot	69	D	N	97	35	107	37	48	11	84	28	56
Merlot	86	D	N	96	34	100	36	34	5	77	25	52
Merlot	93	D	N	93	34	99	36	30	4	74	25	49
Merlot	100	D	N	95	33	100	35	24	2	73	23	50
Merlot	107	D	N	93	33	99	35	19	0	70	23	48
Merlot	114	D	N	94	36	99	37	13	0	69	24	44
Merlot	121	D	N	94	34	101	35	10	0	68	23	45
Merlot	128	D	N	92	31	97	33	5	0	65	21	43
Merlot	135	D	N	90	31	93	32	3	0	62	21	41
Merlot	142	D	N	89	28	92	29	0	0	60	19	41
Merlot	149	D	N	91	29	95	30	0	0	62	20	42
Merlot	156	D	N	76	28	78	29	2	0	52	19	33
Merlot	162	D	N	88	29	93	31	2	0	61	20	41
Merlot	169	D	N	87	28	92	30	1	0	60	19	41
Merlot	176	D	N	85	29	89	31	2	1	59	20	38
Merlot	183	D	N	78	26	83	27	1	0	54	18	36
Merlot	190	D	N	79	27	83	29	11	0	58	19	39
Merlot	197	D	N	82	26	86	28	2	0	57	18	39
Merlot	204	D	N	78	25	83	27	3	0	55	17	37

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Supplemental Table 1 - Free, bound, and total SO_2 in wines during storage experiments.

Wine	Days post-bottling	Packaging	Hi temp?	Total SO_2 Rep A	Free SO_2 Rep A	Total SO_2 Rep B	Free SO_2 Rep B	Total SO_2 Rep C	Free SO_2 Rep C	Avg Total SO_2	Avg Free SO_2	Avg Bound SO_2
Merlot	211	D	N	82	26	86	28	4	0	57	18	39
Merlot	218	D	N	81	25	85	27	2	0	56	17	39
Merlot	225	D	N	89	25	94	26	4	0	62	17	45
Merlot	240	D	N	71	21	72	22	0	0	48	14	33
Merlot	247	D	N	74	22	78	24	0	0	51	15	35
Merlot	254	D	N	70	21	57	22	0	0	42	14	28
Merlot	261	D	N	67	19	74	20	0	0	47	13	34
Merlot	268	D	N	62	18	66	19	0	0	43	12	30
Merlot	275	D	N	68	20	71	21	0	0	46	14	33
Merlot	282	D	N	61	17	66	19	0	0	42	12	30
Merlot	289	D	N	62	17	67	18	0	0	43	12	31
Merlot	296	D	N	60	16	53	17	0	0	38	11	27
Merlot	303	D	N	61	16	64	17	4	0	43	11	32
Merlot	310	D	N	50	11	50	11	58	14	53	12	41
Merlot	317	D	N	61	14	65	16	3	0	43	10	33
Merlot	324	D	N	57	13	58	15	3	0	39	9	30
Merlot	5	A	Y	137	53	136	53			137	53	84
Merlot	9	A	Y	128	52	126	51			127	52	76
Merlot	16	A	Y	120	47	119	45			120	46	74
Merlot	23	A	Y	114	41	112	40			113	41	73
Merlot	30	A	Y	110	38	118	41			114	40	75
Merlot	36	A	Y	111	40	107	39			109	40	70
Merlot	42	A	Y	106	38	101	36			104	37	67
Merlot	51	A	Y	99	35	97	34			98	35	64
Merlot	58	A	Y	94	33	91	32			93	33	60
Merlot	65	A	Y	91	29	86	28			89	29	60
Merlot	69	A	Y	98	27	85	27			92	27	65
Merlot	86	A	Y	80	25	78	25			79	25	54
Merlot	93	A	Y	74	24	73	23			74	24	50
Merlot	100	A	Y	75	21	73	21			74	21	53
Merlot	107	A	Y	74	21	72	21			73	21	52
Merlot	114	A	Y	71	21	69	21			70	21	49
Merlot	121	A	Y	67	19	65	19			66	19	47
Merlot	128	A	Y	58	14	56	14			57	14	43
Merlot	135	A	Y	58	14	53	13			56	14	42
Merlot	142	A	Y	53	11	50	11			52	11	41
Merlot	149	A	Y	54	11	48	10			51	11	41
Merlot	156	A	Y	44	9	39	8			42	9	33
Merlot	162	A	Y	46	9	41	7			44	8	36
Merlot	169	A	Y	42	8	36	7			39	8	32
Merlot	176	A	Y	40	8	34	6			37	7	30
Merlot	183	A	Y	35	5	30	4			33	5	28
Merlot	190	A	Y	34	6	28	4			31	5	26
Merlot	197	A	Y	33	5	24	3			29	4	25
Merlot	204	A	Y	29	4	23	2			26	3	23
Merlot	211	A	Y	29	4	23	3			26	4	23
Merlot	218	A	Y	25	3	19	2			22	3	20
Merlot	225	A	Y	27	3	20	1			24	2	22
Merlot	240	A	Y	19	1	11	0			15	1	15
Merlot	247	A	Y	18	2	10	1			14	2	13
Merlot	254	A	Y	15	1	8	0			12	1	11
Merlot	261	A	Y	13	1	6	0			10	1	9
Merlot	268	A	Y	10	0	4	0			7	0	7
Merlot	275	A	Y	9	1	4	0			7	1	6
Merlot	282	A	Y	8	0	4	0			6	0	6
Merlot	289	A	Y	10	0	4	0			7	0	7
Merlot	296	A	Y	5	0	4	0			5	0	5
Merlot	5	C	Y	131	53	136	52			134	53	81
Merlot	9	C	Y	121	49	123	50			122	50	73
Merlot	16	C	Y	107	38	106	38			107	38	69
Merlot	23	C	Y	91	28	87	28			89	28	61
Merlot	30	C	Y	78	22	82	25			80	24	57
Merlot	36	C	Y	73	21	74	22			74	22	52
Merlot	42	C	Y	59	17	62	18			61	18	43
Merlot	51	C	Y	55	14	57	15			56	15	42
Merlot	58	C	Y	44	10	45	10			45	10	35
Merlot	65	C	Y	36	6	39	7			38	7	31
Merlot	69	C	Y	33	5	34	6			34	6	28
Merlot	86	C	Y	23	2	23	3			23	3	21
Merlot	93	C	Y	17	0	17	1			17	1	17
Merlot	100	C	Y	13	0	12	0			13	0	13
Merlot	107	C	Y	9	0	9	1			9	1	9
Merlot	114	C	Y	5	0	5	0			5	0	5
Merlot	121	C	Y	3	0	3	0			3	0	3
Merlot	128	C	Y	0	0	2	0			1	0	1
Merlot	135	C	Y	0	0	0	0			0	0	0
Merlot	142	C	Y	0	0	3	0			2	0	2
Merlot	149	C	Y	0	0	0	0			0	0	0
Merlot	156	C	Y	0	0	2	0			1	0	1
Merlot	162	C	Y	0	0	1	0			1	0	1
Merlot	169	C	Y	1	0	1	0			1	0	1
Merlot	176	C	Y	0	0	0	0			0	0	0
Merlot	183	C	Y	1	0	1	0			1	0	1
Merlot	190	C	Y	2	0	1	0			2	0	2
Merlot	197	C	Y	0	0	0	0			0	0	0
Merlot	204	C	Y	0	0	0	0			0	0	0
Merlot	211	C	Y	0	0	0	0			0	0	0
Merlot	218	C	Y	0	0	0	0			0	0	0
Merlot	225	C	Y	0	0	0	0			0	0	0
Merlot	240	C	Y	0	0	0	0			0	0	0
Merlot	247	C	Y	0	0	0	0			0	0	0

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Wine	Days post-bottling	Packaging	Hi temp?	Total SO_2 Rep A	Free SO_2 Rep A	Total SO_2 Rep B	Free SO_2 Rep B	Total SO_2 Rep C	Free SO_2 Rep C	Avg Total SO_2	Avg Free SO_2	Avg Bound SO_2
Merlot	254	C	Y	0	0	0	0			0	0	0
Merlot	261	C	Y	0	0	0	0			0	0	0
Merlot	268	C	Y	0	0	0	0			0	0	0
Merlot	275	C	Y	0	0	0	0			0	0	0
Merlot	282	C	Y	0	0	0	0			0	0	0
Merlot	289	C	Y	0	0	0	0			0	0	0
Merlot	296	C	Y	0	0	0	0			0	0	0
Merlot	5	D	Y	131	52	134	52			133	52	81
Merlot	9	D	Y	120	48	122	49			121	49	73
Merlot	16	D	Y	111	40	111	40			111	40	71
Merlot	23	D	Y	99	33	102	35			101	34	67
Merlot	30	D	Y	95	31	94	29			95	30	65
Merlot	36	D	Y	98	34	101	35			100	35	65
Merlot	42	D	Y	89	31	92	32			91	32	59
Merlot	51	D	Y	87	29	90	30			89	30	59
Merlot	58	D	Y	80	27	82	27			81	27	54
Merlot	65	D	Y	78	22	77	23			78	23	55
Merlot	69	D	Y	79	22	77	22			78	22	56
Merlot	86	D	Y	71	20	70	20			71	20	51
Merlot	93	D	Y	66	12	66	19			66	16	51
Merlot	100	D	Y	65	17	65	17			65	17	48
Merlot	107	D	Y	64	19	64	18			64	19	46
Merlot	114	D	Y	61	16	61	17			61	17	45
Merlot	121	D	Y	58	14	56	14			57	14	43
Merlot	128	D	Y	53	12	50	11			52	12	40
Merlot	135	D	Y	50	11	47	10			49	11	38
Merlot	142	D	Y	47	10	45	9			46	10	37
Merlot	149	D	Y	47	9	44	8			46	9	37
Merlot	156	D	Y	35	7	33	6			34	7	28
Merlot	162	D	Y	39	8	34	6			37	7	30
Merlot	169	D	Y	36	7	32	5			34	6	28
Merlot	176	D	Y	32	5	30	5			31	5	26
Merlot	183	D	Y	30	4	25	3			28	4	24
Merlot	190	D	Y	29	4	24	3			27	4	23
Merlot	197	D	Y	29	4	23	3			26	4	23
Merlot	204	D	Y	26	3	21	2			24	3	21
Merlot	211	D	Y	26	4	21	2			24	3	21
Merlot	218	D	Y	22	2	16	1			19	2	18
Merlot	225	D	Y	25	2	15	1			20	2	19
Merlot	240	D	Y	13	0	9	0			11	0	11
Merlot	247	D	Y	13	1	8	0			11	1	10
Merlot	254	D	Y	10	0	6	0			8	0	8
Merlot	261	D	Y	8	0	4	0			6	0	6
Merlot	268	D	Y	6	0	3	0			5	0	5
Merlot	275	D	Y	5	0	3	0			4	0	4
Merlot	282	D	Y	5	0	4	0			5	0	5
Merlot	289	D	Y	3	0	0	0			2	0	2
Merlot	296	D	Y	3	0	3	0			3	0	3