

## Target Compound List and Detection Limits

Method TO-15 is used for measuring volatile organic compounds collected in SUMMA canisters by Full Scan GC/MS. An aliquot of sample concentrated onto a sorbent trap or a cryotrap depending on the method. The sample is desorbed and cryofocused on the GC column. The following list of 80 compounds for TO-15 more closely matches the EPA 8260 target list, but this list can be extended to 100 compounds. The MDL and RL values are based on an ambient air sample with no canister dilution or matrix interferences, which can raise these limits by a factor of 2 or more. Contact EAS or see the document "Information on Detection Limits" to see how to achieve the lowest possible MDL's.

<b>CAS</b>	<b>Compound</b>	<b>MDL ppbV</b>	<b>RL ppbv</b>	<b>MDL ug/m3</b>	<b>RL ug/m3</b>
75-71-8	Dichlorodifluoromethane	0.05	0.10	0.2	0.5
74-87-3	Chloromethane	0.05	0.10	0.1	0.2
76-14-2	Freon 114	0.05	0.10	0.4	0.7
75-01-4	Vinyl chloride	0.05	0.10	0.1	0.3
106-99-0	1,3-Butadiene	0.05	0.10	0.1	0.2
74-83-9	Bromomethane	0.05	0.10	0.2	0.4
75-00-3	Chloroethane	0.05	0.10	0.1	0.3
75-69-4	Trichlorofluoromethane	0.05	0.10	0.3	0.5
67-64-1	Acetone	0.50	1.00	1.2	2.4
67-63-0	2-propanol	0.50	1.00	1.2	2.5
75-35-4	1,1-Dichloroethene	0.05	0.10	0.2	0.4
76-13-1	Freon 113	0.05	0.10	0.4	0.7
75-09-2	Methylene Chloride	0.05	0.10	0.2	0.3
75-15-0	Carbon disulfide	0.50	1.00	1.6	3.1
156-60-5	trans-1,2-Dichloroethene	0.04	0.07	0.1	0.3
1634-04-4	Methyl tert butyl ether	0.04	0.07	0.1	0.3
75-34-3	1,1-Dichloroethane	0.05	0.10	0.2	0.4
108-05-4	Vinyl acetate	0.04	0.09	0.2	0.3
78-93-3	2-Butanone	0.20	0.40	0.6	1.2
110-54-3	Hexane	0.25	0.50	0.9	1.8
126-98-7	Methacrylonitrile	0.50	1.00	1.4	2.8
141-78-6	Ethyl acetate	0.50	1.00	1.8	3.6
74-97-5	Bromochloromethane	0.03	0.05	0.1	0.3
109-99-9	Tetrahydrofuran	0.05	0.10	0.1	0.3
78-83-1	Isobutyl alcohol	1.00	2.00	3.0	6.1
156-59-2	cis-1,2-Dichloroethene	0.05	0.11	0.2	0.4
594-20-7	2,2-Dichloropropane	0.04	0.09	0.2	0.4
67-66-3	Chloroform	0.05	0.10	0.2	0.5
71-55-6	1,1,1-Trichloroethane	0.04	0.09	0.2	0.5
107-06-2	1,2-Dichloroethane	0.05	0.09	0.2	0.4
<b>CAS</b>	<b>Compound</b>	<b>MDL ppbV</b>	<b>RL ppbv</b>	<b>MDL ug/m3</b>	<b>RL ug/m3</b>

563-58-6	1,1-Dichloropropene	0.03	0.07	0.1	0.3
110-82-7	Cyclohexane	0.04	0.08	0.1	0.3
71-43-2	Benzene	0.05	0.10	0.2	0.3
56-23-5	Carbon tetrachloride	0.05	0.09	0.3	0.6
540-84-1	2,2,4-Trimethylpentane	0.03	0.05	0.1	0.3
142-82-5	n-Heptane	0.50	1.00	2.1	4.1
78-87-5	1,2-Dichloropropane	0.05	0.10	0.2	0.4
123-91-1	1,4 Dioxane	0.08	0.16	0.3	0.6
74-95-3	Dibromomethane	0.02	0.04	0.1	0.3
79-01-6	Trichloroethene	0.05	0.09	0.3	0.5
75-27-4	Bromodichloromethane	0.02	0.04	0.1	0.3
80-62-6	Methyl methacrylate	0.50	1.00	2.1	4.1
108-10-1	4-Methyl-2-pentanone	0.50	1.00	2.1	4.1
10061-01-5	cis-1,3-Dichloropropene	0.05	0.10	0.2	0.5
108-88-3	Toluene	0.05	0.10	0.2	0.4
10061-02-6	trans-1,3-Dichloropropene	0.05	0.10	0.2	0.5
79-00-5	1,1,2-Trichloroethane	0.05	0.10	0.3	0.6
591-78-6	2-Hexanone	0.50	1.00	2.1	4.1
142-28-9	1,3-Dichloropropane	0.03	0.07	0.2	0.3
111-65-9	Octane	0.50	1.00	2.3	4.7
124-48-1	Dibromochloromethane	0.02	0.04	0.2	0.3
106-93-4	1,2-Dibromoethane	0.02	0.05	0.2	0.4
127-18-4	Tetrachloroethene	0.02	0.05	0.2	0.3
108-90-7	Chlorobenzene	0.05	0.09	0.2	0.4
100-41-4	Ethylbenzene	0.05	0.11	0.2	0.5
1330-20-7	m,p-Xylene	0.05	0.11	0.2	0.5
111-84-2	Nonane	0.50	1.00	2.6	5.3
100-42-5	Styrene	0.05	0.10	0.2	0.4
75-25-2	Bromoform	0.01	0.03	0.1	0.3
95-47-6	o-Xylene	0.05	0.10	0.2	0.4
79-34-5	1,1,2,2-Tetrachloroethane	0.02	0.05	0.2	0.3
96-18-4	1,2,3-Trichloropropane	0.50	1.00	3.0	6.0
103-65-1	n-Propylbenzene	0.03	0.06	0.1	0.3
98-82-8	Isopropylbenzene	0.03	0.06	0.1	0.3
622-96-8	4-Ethyltoluene	0.08	0.17	0.4	0.8
108-67-8	1,3,5-Trimethylbenzene	0.05	0.10	0.3	0.5
124-18-5	Decane	0.25	0.50	1.5	2.9
98-06-6	tert-butyl benzene	0.03	0.05	0.1	0.3
95-63-6	1,2,4-Trimethylbenzene	0.05	0.10	0.3	0.5
538-93-2	i-Butylbenzene	0.03	0.05	0.1	0.3
135-98-8	sec-butylbenzene	0.03	0.06	0.2	0.3
541-73-1	1,3-Dichlorobenzene	0.10	0.20	0.6	1.2
99-87-6	Isopropyltoluene	0.03	0.06	0.2	0.3
100-44-7	Benzyl chloride	0.10	0.20	0.5	1.0
106-46-7	1,4-Dichlorobenzene	0.10	0.20	0.6	1.2
104-51-8	n-Butylbenzene	0.10	0.20	0.6	1.1
95-50-1	1,2-Dichlorobenzene	0.10	0.20	0.6	1.2
120-82-1	1,2,4-Trichlorobenzene	0.25	0.50	1.9	3.7
91-20-3	Naphthalene	0.10	0.20	0.5	1.1
87-68-3	Hexachlorobutadiene	0.25	0.50	2.7	5.3