

VOC 575 Passive Samplers

Targeted Compounds

- Validated sampling rates
- Lightweight, miniature — convenient for workers to wear in any industry
- Easy to use and analyze

Siloxanes

SKC validated method

VOC Chek 575 Passive Sampler
Cat. No. 575-001

See page 85 for ordering.



Ethylene Oxide (EtO)

Same sorbent as active OSHA Method 1010
Fully validated for 15-min and 8-hr sampling

VOC Chek 575 Passive Sampler
Cat. No. 575-005

See page 85 for ordering.

Anesthetic Gases

Halothane, isoflurane, desflurane,
enflurane, sevoflurane
Easy wear for health care workers

VOC Chek 575 Passive Sampler
Cat. No. 575-002

See page 85 for ordering.

Methanol

Validated for 15-min and 8-hr sampling
Ideal for the fracking industry

VOC Chek 575 Passive Sampler
Cat. No. 575-007

See page 85 for ordering.

Visit skcinc.com/reports for passive (diffusive) sampler validation reports.

Siloxanes are Health and Equipment Hazards

Currently, air quality standards do not regulate siloxanes, and no state or federal promulgated methods exist for sampling and analysis. However, several non-agency methods exist to address known health and equipment issues. Siloxanes, such as octamethylcyclotetrasiloxane (D4), pose health hazards. The Globally Harmonized System (GHS) has classified D4 as suspected to cause reproductive toxicity. Recently, the European Chemical Agency (ECHA) added D4, D5, and D6 to its Candidate List of Substances of Very High Concern (SVHC). These persistent, bioaccumulative, and toxic siloxanes are contained in cleaners, polishes, waxes, cosmetics, and personal care products. In landfills, siloxanes volatilize into biogas. When biogas is combusted, siloxanes convert to sand that then becomes deposited in combustion equipment and causes failure.

VOC Chek 575 Series Selection Guide

ppm-Level Sampling of Organic Vapors

SKC VOC Chek 575 Series Passive Samplers are available with sorbents such as activated carbon and Anasorb 747 that strongly retain the collected compounds and require solvent extraction for laboratory analysis.

Use the following guide to locate target compounds and get an overview of critical sampling parameters along with the SKC catalog number of the recommended SKC VOC Chek 575 Series Passive Sampler.

Validation Levels

See the Validation Level column in this guide to determine the level of scientific testing. For online research reports, go to skcinc.com/reports. Click the publication number that corresponds to the number in the Research Report column in this guide.

Full – Stringent NIOSH testing protocol has been applied to verify sampler desorption efficiency, sampling rate, capacity, and the effects of relative humidity, temperature, concentration, reverse diffusion, and storage on accuracy.

Bi-level – NIOSH testing protocol has been applied to the most volatile member of a related (homologous) series of chemicals; therefore, related less volatile series members require only partial validation (*described below*) to achieve the same level of sampling accuracy. See *Guild et al.* (<http://doi.org/cjzqd7>) or request a copy from SKC.

Partial – NIOSH testing protocol has been applied to verify sampling rate, desorption efficiency, and storage stability.

(Not validated) Calculated – This calculation of a sampling or uptake rate uses the diffusion coefficient of a specific chemical (D) and the cross-sectional area (A) and length (L) of the sampler's diffusion path (based on sampler geometry).

OSHA – Sampler has been validated by OSHA and is referenced in a published OSHA method.

Note To Labs

SKC Universal Desorption Solvent

Money-saving Single-solvent Option
SKC Universal D-solvent (10% 1-propanol in CS₂) simplifies desorption of polar compounds as efficiently as a solvent mix, but without the expense. SKC continues to add more compounds to its Universal D-solvent list. Visit skcinc.com, and look for SKC Passive Sampling Guide. Search for the compound of interest.



Chemical Hazard	Validation Level	Research Report	OSHA PELs Δ		Sampling Rate (ml/min)	Sampling Time		Analytical Method	DE %		SKC VOC Chek 575 Cat. No.
			TWA (ppm)	CLGSTEL (ppm)		Min (min)	Max (hrs)		Std. %	Universal	
Acetic acid	Calculated		10	15 #	19.6			GC-FID	99.2		575-001
Acetic acid	Calculated		10	15 #	19.6			GC-FID	107.9		575-002
Acetoin (acetyl methyl carbinol)	Calculated				14.9			GC-FID			575-001 or 575-002
Acetone	Full	1303	1000		15.2	60	8	GC-FID	90.2	105.0	575-002
Acetone	Full	1303	1000		20.3	15	4	GC-FID	90.2		575-002
Acetonitrile	Calculated		40		22.4			GC-FID	103		575-001
Acetonitrile	Calculated		40		22.4			GC-FID	108	99.4	575-002
Acetyl methyl carbinol (acetoin)	Calculated				14.9			GC-FID			575-001 or 575-002
Acrylonitrile	Full		2	10 C	20.4	15	8	GC-FID	81		575-002
Allyl alcohol	Calculated		2	4 #	18.4			GC-FID	64		575-001
Allyl alcohol	Calculated		2	4 #	18.4			GC-FID	76		575-002
Allyl chloride	Calculated		1	2 #	17.8			GC-FID	95.1		575-001
Allyl chloride	Calculated		1	2 #	17.8			GC-FID	101.3		575-002
n-Amyl acetate	Calculated		100		11.7			GC-FID	93.5		575-001
n-Amyl acetate	Calculated		100		11.7			GC-FID	96		575-002
sec-Amyl acetate (2-pentyl acetate)	Calculated		125		11.8			GC-FID			575-001
n-Amyl alcohol	Calculated				13.9			GC-FID	87.3		575-001
n-Amyl alcohol	Calculated				13.9			GC-FID	100.6		575-002
t-Amyl methyl ether (methyl tert-amyl ether)	Bilevel	1355			13.1	30	8	GC-FID	99		575-001
Benzene	Full	1312	1	5	16	15	8	GC-FID	93.5		575-001
Benzene	OSHA 1005		1	5	17.1	15	8	GC-FID	93.6	96	575-002
Benzotrifluoride (trifluoromethyl benzene; OXSOL 2000)	Bilevel		100 ◊		13.3	15	8	GC-FID	106		575-001
Benzotrifluoride (trifluoromethyl benzene; OXSOL 2000)	Bilevel		100 ◊		13.3	15	8	GC-FID	107		575-002
Benzyl acetate	Calculated		10		11.3			GC-FID	91.2		575-002
Benzyl chloride	Calculated		1	1 C	12.9			GC-FID	98.7		575-001
Benzyl chloride	Calculated		1	1 C	12.9			GC-FID	98.9		575-002

See page 244 for abbreviations.

Selection Guide

VOC 575 Passive Samplers

Chemical Hazard	Validation Level	Research Report	OSHA PELs Δ		Sampling Rate (ml/min)	Sampling Time		Analytical Method	DE %		SKC VOC Chek 575 Cat. No.
			TWA (ppm)	CLGSTEL (ppm)		Min (min)	Max (hrs)		Std. §	Universal	
Bromobenzene	Calculated				13.8			GC-FID			575-001
Bromodichloromethane (dichlorobromomethane)	Calculated				16.1			GC-FID			575-001
Bromoethane (ethyl bromide)	Calculated		200	250 #	18.5			GC-FID			575-001
Bromoform	Calculated		0.5		15.2			GC-FID			575-001
Bromomethane (methyl bromide)	Calculated			20 C	22.1			GC-FID			575-001
1-Bromopropane (propyl bromide)	Full	1740	0.1		14.4	30	8	GC-FID	100		575-001
1-Bromopropane (propyl bromide)	Full	1740	0.1		14.7	30	8	GC-FID	107		575-002
1,3-Butadiene	Calculated		1	5	19.6			GC-FID			575-001
n-Butane	Calculated				18.1			GC-FID			575-001
n-Butanol (n-butyl alcohol)	Calculated		100	50 #	15.5			GC-FID	94		575-001
n-Butanol (n-butyl alcohol)	Calculated		100	50 #	15.5			GC-FID	100	101.6	575-002
2-Butanol (sec-butyl alcohol)	Calculated		150	150 #	15.6			GC-FID	93		575-001
2-Butanol (sec-butyl alcohol)	Calculated		150	150 #	15.6			GC-FID	100	102.6	575-002
2-Butanone (methyl ethyl ketone, MEK)	Bilevel	1306	200		17.1	15	12	GC-FID	100		575-002
2-Butanone (methyl ethyl ketone, MEK)	OSHA 1004		200		16.88	15	8	GC-FID	92.3	96.4	575-002
2-Butoxyethanol (butyl CELLOSOLVE solvent)	Calculated		50		12			GC-FID	89.7	102	575-002
n-Butyl acetate	OSHA 1009		150	200 #	13.07	15	8	GC-FID	99.2		575-002
n-Butyl acetate	Partial	1894	150	200 #	12.3	30	8	GC-FID	90.4		575-001
n-Butyl acetate	Partial	1894	150	200 #	13.2	30	8	GC-FID	98.7		575-002
sec-Butyl acetate	Calculated		200		12.8			GC-FID	96.2		575-001
sec-Butyl acetate	Calculated		200		12.8			GC-FID	96.6		575-002
sec-Butyl acetate	OSHA 1009		200		12.74	15	8	GC-FID	98.9		575-002
t-Butyl acetate	Calculated		200		12.7			GC-FID	95.1		575-001
t-Butyl acetate	Calculated		200		12.7			GC-FID	94.8		575-002
t-Butyl acetate	OSHA 1009		200		13.09	15	8	GC-FID	98.9		575-002
Butyl acrylate	Bilevel		10 ‡		11.7	30	8	GC-FID	95		575-002
t-Butyl alcohol	Calculated		100	150	15.8			GC-FID	84	103	575-002
n-Butyl alcohol (1-butanol)	Calculated		100	50 #	15.5			GC-FID	94		575-001
n-Butyl alcohol (1-butanol)	Calculated		100	50 #	15.5			GC-FID	100	101.6	575-002
sec-Butyl alcohol (2-butanol)	Calculated		150	150 #	15.6			GC-FID	93		575-001
sec-Butyl alcohol (2-butanol)	Calculated		150	150 #	15.6			GC-FID	100	102.6	575-002
t-Butyl benzene	Calculated				11.3			GC-FID		102	575-002
Butyl CELLOSOLVE acetate (ethylene glycol monobutyl ether acetate)	Calculated		5		10.4			GC-FID			575-002
Butyl CELLOSOLVE solvent (2-butoxyethanol)	Calculated		50		12			GC-FID	89.7	102	575-002
t-Butyl ethyl ether (ethyl tert-butyl ether)	Bilevel	1356			13.1	15	8	GC-FID	101		575-001
n-Butyl glycidyl ether	Calculated		50	5.6 ‡	11.6			GC-FID	104		575-002
t-Butyl methyl ether (methyl t-butyl ether, MTBE)	Full	1352			13.6	8.5	8	GC-FID	97.4		575-001
p-tert-Butyl toluene	Bilevel		10		10.4	15	8	GC-FID	100		575-001
n-Butylbenzene	Calculated				11.23			GC-FID	103		575-002
sec-Butylbenzene	Calculated				11.3			GC-FID			575-002
gamma-Butyrolactone	Calculated				16.6			GC-FID	80.9		575-002
Camphor	Calculated		2 mg/m³		10.8			GC-FID	94.2		575-001
Camphor	Calculated		2 mg/m³		10.8			GC-FID	113		575-002
Carbolic acid (phenol)	Calculated		5	15.6 C	14.5			GC-FID			575-001 or 575-002
Carbon disulfide	Calculated		20	30	19.54			GC-FID			575-001
Carbon tetrachloride	Bilevel		10	25 C	14.1	30	8	GC-FID	98.3		575-001
2-CELLOSOLVE acetate (2-ethoxyethyl acetate)	Calculated		100		12.1			GC-FID	95.4		575-002
1-Chloro-2-methyl benzene (monochlorotoluene; OXSOL 10)	Bilevel		50 ‡		13	15	8	GC-FID	91.8		575-001
1-Chloro-2-methyl benzene (monochlorotoluene; OXSOL 10)	Bilevel		50 ‡		13	15	8	GC-FID	91		575-002
1-Chloro-4-(trifluoromethyl)benzene (parachlorobenzotrifluoride; OXSOL 100)	Bilevel		25 ◊		11.8	15	8	GC-FID	102		575-001
1-Chloro-4-(trifluoromethyl)benzene (parachlorobenzotrifluoride; OXSOL 100)	Bilevel		25 ◊		11.8	15	8	GC-FID	108		575-002
Chlorobenzene	Partial		75		14.41	15	8	GC-FID	93.3		575-001
Chlorobenzene	Partial	1838	75		14.41	15	8	GC-FID	87.6		575-002
Chlorobromomethane	Calculated		200		18.3			GC-FID	103		575-002
Chloroethane (ethyl chloride)	Calculated		1000		20.02			GC-FID			575-001
Chloroform	Bilevel		10	50 C	13	60	8	GC-FID	97.3		575-001
Chloromethane (methylchloride)	Calculated				24.6			GC-FID			575-001
o-Chlorostyrene	Bilevel	1374	50 ‡		9.8	15	8	GC-FID	75.2		575-002
4-Chlorotoluene	Calculated				12.4			GC-FID			575-001
Cumene (isopropyl benzene)	Bilevel		50		12.8	15	8	GC-FID	99.3		575-001
Cumene (isopropyl benzene)	Bilevel		50		12.8	15	8	GC-FID	106		575-002
Cyclohexane	Bilevel		300		15.6	15	8	GC-FID	105		575-001
Cyclohexane	Bilevel		300		15.6	15	8	GC-FID	109		575-002
Cyclohexanol	Calculated		50		13.5			GC-FID	98		575-001
Cyclohexanol	Calculated		50		13.5			GC-FID	105	89.6	575-002
Cyclohexanone	partial		50		16.41	15	8	GC-FID	100		575-002
Cyclohexene	Calculated		300		15.4			GC-FID	102		575-001
Cyclohexene	Calculated		300		15.4			GC-FID	106		575-002
Cyclopentane	Calculated				16.8			GC-FID			575-001
p-Cymene (4-isopropyltoluene)	Calculated				11.3			GC-FID			575-001

See page 244 for abbreviations.

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Chemical Hazard	Validation Level	Research Report	OSHA PELs Δ		Sampling Rate (ml/min)	Sampling Time		Analytical Method	DE %		SKC VOC Chek 575 Cat. No.
			TWA (ppm)	CLGSTEL (ppm)		Min (min)	Max (hrs)		Std. §	Universal	
Decamethylcyclotrisiloxane (D5)	Partial	1891	5 †		5.66	15	8	GC-FID	99.0		575-001
Decamethyltetrasiloxane	Calculated				7.36			GC-FID			575-001
n-Decane	Partial				12.2			GC-FID	103	102	575-002
1-Decanol (decyl alcohol)	Calculated				9.6			GC-FID	97.3		575-002
Decyl alcohol (1-decanol)	Calculated				9.6			GC-FID	97.3		575-002
Desflurane	Partial	1893		2	13.8	30	4	GC-FID	94.3		575-002
Diacetone alcohol	Calculated		50		12.4			GC-FID	92.9	97.7	575-002
1, 2-Dibromo-3-chloropropane	Calculated		1 ppb		12.6			GC-FID	101.3		575-002
Dibromochloromethane	Calculated				15.6			GC-FID			575-001
1,2-Dibromoethane (ethylene dibromide)	Calculated		20	30	15.3			GC-FID	92.3		575-001
1,2-Dibromoethane (ethylene dibromide)	Calculated		20	30	15.3			GC-FID	99.4		575-002
1, 6-Dibromohexane (hexamethylene dibromide)	Calculated				10.7			GC-FID			575-001
o-Dichlorobenzene (1,2-dichlorobenzene)	Partial			50 C	12.5	15	8	GC-FID	79.2		575-001
o-Dichlorobenzene (1,2-dichlorobenzene)	Partial	1875		50	12.5	15	8	GC-FID	77.1		575-002
m-Dichlorobenzene (1,3-dichlorobenzene)	Calculated				12.95			GC-FID	91.8		575-001
m-Dichlorobenzene (1,3-dichlorobenzene)	Calculated				12.95			GC-FID	92.7		575-002
p-Dichlorobenzene (1,4-dichlorobenzene)	Calculated		75		12.95			GC-FID	91.1		575-001
p-Dichlorobenzene (1,4-dichlorobenzene)	Calculated		75		12.95			GC-FID	94.7		575-002
1,3-Dichlorobenzene (m-dichlorobenzene)	Calculated				12.95			GC-FID	91.8		575-001
1,3-Dichlorobenzene (m-dichlorobenzene)	Calculated				12.95			GC-FID	92.7		575-002
1,2-Dichlorobenzene (o-dichlorobenzene)	Partial			50 C	12.5	15	8	GC-FID	79.2		575-001
1,2-Dichlorobenzene (o-dichlorobenzene)	Partial	1875		50 C	12.5	15	8	GC-FID	77.1		575-002
1,4-Dichlorobenzene (p-dichlorobenzene)	Calculated		75		12.95			GC-FID	91.1		575-001
1,4-Dichlorobenzene (p-dichlorobenzene)	Calculated		75		12.95			GC-FID	94.7		575-002
Dichlorobromomethane (bromodichloromethane)	Calculated				16.1			GC-FID			575-001
Dichlorodifluoromethane (Freon 12)	Calculated		1000		18.6			GC-FID			575-001
1,1-Dichloroethane	Calculated		100		16.85			GC-FID			575-001
1,2-Dichloroethane (ethylene dichloride)	Bilevel		50	100	14.2	60	8	GC-FID	95.8		575-001
1,2-Dichloroethane (1,2-dichloroethylene)	Full				14.8	15	8	GC-FID	97.1		575-001
1,1-Dichloroethene (vinylidene chloride)	Bilevel		1		12.3	60	8	GC-FID	95.2		575-001
Dichloroethyl ether	Calculated		5 ‡	15 C	12.5			GC-FID			575-001
1,2-Dichloroethylene (1,2-dichloroethene)	Full		200		14.8	15	8	GC-FID	97.1		575-001
1,2-Dichloroethylene (1,2-dichloroethene)	Full				14.8	15	8	GC-FID	97.1		575-001
Dichloromethane (methylene chloride)	Full	1323	25	125	14.7	60	8	GC-FID	96		575-001
1,2-Dichloropropane (propylene dichloride)	Bilevel		75		14.3	15	8	GC-FID	97.7		575-001
1,1-Dichloropropene	Calculated				15.6			GC-FID			575-001
cis-1,3-Dichloropropene	Partial	1886	1 ‡		13.6	15	8	GC-FID	101		575-002
trans-1,3-Dichloropropene	Partial	1886			14.4	15	8	GC-FID	99.4		575-002
1,2-Dichlorotetrafluoroethane (Freon 114)	Calculated		1000		15.3			GC-FID			575-001
Dicyclopentadiene	Calculated		5 ‡		11.8			GC-FID			575-001
Diesel	Calculated				11.2			GC-FID			575-001 or 575-002
Diethyl ether (ethyl ether)	Calculated		400		16.4			GC-FID			575-001
Diethyl ketone (3-pentanone)	Calculated		200 ‡		14.8			GC-FID	83.9		575-001
Diethyl ketone (3-pentanone)	Calculated		200 ‡		14.8			GC-FID	100.3		575-002
Diethylene glycol dimethyl ether (2-methoxyethyl ether)	Calculated				11.5			GC-FID			575-002
Diethylene glycol monobutyl ether	Calculated				9.97			GC-FID			575-002
Diethylene glycol monoethyl ether	Calculated				9.85			GC-FID			575-002
Diethylene glycol monoethyl ether acetate	Calculated				9.88			GC-FID			575-002
Diethylene glycol monomethyl ether (2-[2-methoxyethoxy] ethanol)	Calculated				11.3			GC-FID			575-002
Diisobutyl ketone (DIBK), (isovalerone)	Bilevel	1305	50		10.3	30	8	GC-FID	98.3		575-002
1,2-Dimethoxyethane (ethylene glycol dimethyl ether)	Calculated				14.7			GC-FID			575-001 or 575-002
Dimethoxymethane (methylal)	Calculated		1000		17.1			GC-FID			575-001
Dimethyl adipate	Calculated				10.73			GC-FID			575-001
Dimethyl disulfide	Calculated				15.4			GC-FID			575-

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Chemical Hazard	Validation Level	Research Report	OSHA PELs Δ		Sampling Rate (ml/min)	Sampling Time		Analytical Method	DE %		SKC VOC Chek 575 Cat. No.
			TWA (ppm)	CLGSTEL (ppm)		Min (min)	Max (hrs)		Std. §	Universal	
1-Dodecene	Calculated				9.29			GC-FID			575-001
1-Dodecyl alcohol (lauryl alcohol)	Calculated				8.7			GC-FID	107.5		575-001
1-Dodecyl alcohol (lauryl alcohol)	Calculated				8.7			GC-FID	103	103.8	575-002
Dodecyl methacrylate	Calculated				7.6			GC-FID			575-002
Enflurane (ethrane)	Partial	1893		2	13.8	30	4	GC-FID	101		575-002
Epichlorohydrin	Calculated		5		16.4			GC-FID	88.2		575-002
2,3-Epoxy-1-propanol (glycidol)	Calculated		50		17.8			GC-FID			575-002
2,3-Epoxypropyl methacrylate (glycidyl methacrylate)	Calculated				11.45			GC-FID			575-002
Ethanol (ethyl alcohol)	Partial	1876	1000		20.3	15	8	GC-FID	99	103	575-002
2-Ethoxyethanol	Calculated		200		14.4			GC-FID	100.8		575-001
2-Ethoxyethanol	Calculated		200		14.4			GC-FID	111.2	101	575-002
2-Ethoxyethyl acetate (2-CELLOSOLVE acetate)	Calculated		100		12.1			GC-FID	95.4		575-002
Ethrane (enflurane)	Partial	1893		2	13.8	30	4	GC-FID	101		575-002
Ethyl acetate	Partial	1894	400		13.1	30	8	GC-FID	92.8		575-001
Ethyl acetate	Partial	1894	400		14.1	30	8	GC-FID	100	101	575-002
Ethyl acrylate	Bilevel		5		13.7	15	8	GC-FID	94.2		575-002
Ethyl alcohol (ethanol)	Partial	1876	1000		20.3	15	8	GC-FID	99	103	575-002
Ethyl benzene	Bilevel		100		12.9	15	6	GC-FID	100		575-001
Ethyl benzene	Bilevel		100		12.9	15	6	GC-FID	104		575-002
Ethyl benzene	OSHA 1002		100		13.83	15	8	GC-FID	99.1		575-002
Ethyl bromide (bromoethane)	Calculated		200	250 #	18.5			GC-FID			575-001
Ethyl butyl ketone (3-heptanone)	Calculated		50		12.2			GC-FID	87.9		575-001
Ethyl butyl ketone (3-heptanone)	Calculated		50		12.2			GC-FID	103.4		575-002
Ethyl chloride (chloroethane)	Calculated		1000		20.2			GC-FID			575-001
Ethyl cyanide	Calculated				18.61			GC-FID			575-001
Ethyl ether	Calculated		400		16.4			GC-FID			575-001
Ethyl formate	Calculated		100		17.8			GC-FID			575-001
2-Ethyl hexyl acetate	Calculated				9.8			GC-FID	99		575-002
Ethyl methacrylate	Full		100		13.1	15	8	GC-FID	84.7		575-001
Ethyl methacrylate	Full		100		13.1	15	8	GC-FID	104		575-002
Ethyl propionate	Calculated				14			GC-FID			575-001
Ethyl tert-butyl ether (tert-butyl ethyl ether)	Bilevel	1356			13.1	15	8	GC-FID	101		575-001
Ethylene dibromide (1,2-dibromoethane)	Calculated		20	30	15.3			GC-FID	92.3		575-001
Ethylene dibromide (1,2-dibromoethane)	Calculated		20	30	15.3			GC-FID	99.4		575-002
Ethylene dichloride (1,2-dichloroethane)	Bilevel		50	100 C	14.2	60	8	GC-FID	95.8		575-001
Ethylene glycol	Calculated			100mgm ³ C	17.44			GC-FID			575-002
Ethylene glycol diethyl ether	Calculated				12.27			GC-FID			575-002
Ethylene glycol dimethyl ether (1,2-dimethoxyethane)	Calculated				14.7			GC-FID			575-001 or 575-002
Ethylene glycol monobutyl ether acetate (butyl CELLOSOLVE acetate)	Calculated		5		10.4			GC-FID			575-002
Ethylene glycol monohexyl ether	Calculated				10.5			GC-FID			575-001
Ethylene glycol monomethyl ether acetate (methyl CELLOSOLVE acetate)	Calculated		25		12.9			GC-FID	92.4		575-002
Ethylene oxide	Full	1543	1	5 EL	21.2	15	8	GC-ECD	102		575-005
2-Ethylhexanol	Calculated				10.93			GC-FID	93.7	109	575-002
2-Ethyltoluene	Calculated				12.1			GC-FID	106		575-002
3-Ethyltoluene	Calculated				12.1			GC-FID	101		575-002
4-Ethyltoluene	Calculated				12.1			GC-FID	91		575-002
Freon 11 (trichlorofluoromethane)	Calculated				16.65			GC-FID			575-001
Freon 113 (1,1,2-trichloro-1,2,2-trifluoroethane)	Calculated		1000	1250 #	14.1			GC-FID			575-001
Freon 114 (1,2-dichlorotetrafluoroethane)	Calculated		1000		15.3			GC-FID			575-001
Freon 12 (dichlorodifluoromethane)	Calculated		1000		18.6			GC-FID			575-001
Gasoline	Calculated				13.84			GC-FID			575-001 or 575-002
Glutaric acid dimethyl ester	Calculated				11.5			GC-FID			575-002
Glycidol (2,3-epoxy-1-propanol)	Calculated		50		17.8			GC-FID			575-002
Glycidyl methacrylate (2,3-epoxypropyl methacrylate)	Calculated				11.45			GC-FID			575-002
Halothane	Full	1893			14.1	15	8	GC-FID	99.9		575-002
n-Heptane	Bilevel		500		13.9	15	8	GC-FID	105		575-001
n-Heptane	Bilevel		500		13.9	15	8	GC-FID	108		575-002
4-Heptanone (dipropyl ketone)	Calculated		50 †		12.1			GC-FID	85.3		575-001
4-Heptanone (dipropyl ketone)	Calculated		50 †		12.1			GC-FID	112.2		575-002
3-Heptanone (ethyl butyl ketone)	Calculated		50		12.2			GC-FID	87.9		575-001
3-Heptanone (ethyl butyl ketone)	Calculated		50		12.2			GC-FID	103.4		575-002
2-Heptanone (methyl n-amylyl ketone)	Calculated		100		12.2			GC-FID	99.8		575-002
1-Heptene	Calculated				13.1			GC-FID			575-001
Hexachlorobutadiene	Calculated		0.02 †		10.5			GC-FID			575-001
Hexachloroethane	Calculated		1		11.5			GC-FID			575-001
Hexadecane	Calculated				7.7			GC-FID			575-001
Hexamethyldisiloxane (L2)	Partial	1892	200 †		9.98	15	8	GC-FID	102.9		575-001
Hexamethylene dibromide (1,6-dibromohexane)	Calculated				10.7			GC-FID			575-001
n-Hexane	Bilevel		500		14.3	15	8	GC-FID	100		575-001
n-Hexane	Bilevel		500		14.3	15	8	GC-FID	112		575-002
Hexanol (hexyl alcohol)	Calculated				12.64			GC-FID	92.9	97	575-002

See page 244 for abbreviations.

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Chemical Hazard	Validation Level	Research Report	OSHA PELs Δ		Sampling Rate (ml/min)	Sampling Time		Analytical Method	DE %		SKC VOC Chek 575 Cat. No.
			TWA (ppm)	CLGSTEL (ppm)		Min (min)	Max (hrs)		Std. §	Universal	
2-Hexanone (methyl butyl ketone MBK)	Partial	1873	100		14.3	15	8	GC-FID	104	97.8	575-002
2-Hexene	Calculated				14.5			GC-FID			575-001
Hexone (methyl isobutyl ketone [MIBK])	Bilevel	1304	100		13.5	30	8	GC-FID	94.6		575-002
Hexone (methyl isobutyl ketone [MIBK])	OSHA 1004		100		13.62	30	8	GC-FID	92.9	99.5	575-002
sec-Hexyl acetate	Calculated		50		11.1			GC-FID			575-002
Hexyl alcohol (hexanol)	Calculated				12.64			GC-FID	92.9	97	575-002
Hexylene	Calculated				14.5			GC-FID			575-001
Hexylene glycol	Calculated			25 C	11.81			GC-FID			575-002
Iodomethane (methyl iodide)	Calculated				18.7			GC-FID			575-001
Isoamyl acetate	Calculated		100		11.9			GC-FID	91.9		575-001
Isoamyl acetate	Calculated		100		11.9			GC-FID	108		575-002
Isoamyl alcohol	Calculated		100	125 #	13.9			GC-FID			575-002
Isobutyl acetate	Calculated		150		12.8			GC-FID	106		575-002
Isobutyl acetate	OSHA 1009		150		13.16	15	8	GC-FID	99.1		575-002
Isobutyl acrylate	Calculated				12.2			GC-FID			575-002
Isobutyl alcohol	Calculated		100		15.6			GC-FID	93.0		575-001
Isobutyl alcohol	Calculated		100		15.6			GC-FID	100.0	100	575-002
Isopentane (2-methyl butane)	Full	1893			13.2	15	8	GC-FID	96.0		575-002
Isopentane (2-methyl butane)	Calculated		50 †		10.9			GC-FID			575-002
Isopentane (2-methyl butane)	Calculated		1000	610 #	15.8			GC-FID			575-001
Isophorone	Calculated		25		11.3			GC-FID			575-002
Isopropanol (isopropyl alcohol)	Partial	1839	400	500 #	18.42	15	8	GC-FID	103.5	102	575-002
Isopropyl acetate	Calculated		250		14.2			GC-FID	88.5		575-001
Isopropyl acetate	Calculated		250		14.2			GC-FID	101		575-002
Isopropyl alcohol (isopropanol)	Partial	1839	400	500 #	18.42	15	8	GC-FID	103.5	102	575-002
Isopropyl benzene (cumene)	Bilevel		50		12.8	15	8	GC-FID	99.3		575-001
Isopropyl benzene (cumene)	Bilevel		50		12.8	15	8	GC-FID	106		575-002
Isopropyl ether	Calculated		500		13.4			GC-FID			575-001
Isopropyl glycidyl ether	Calculated		50	50 #	12.8			GC-FID			575-001
4-Isopropyltoluene (p-cymene)	Calculated				11.3			GC-FID			575-001
Isovalerone (diisobutyl ketone [DIBK])	Bilevel	1308	50		10.3	30	8	GC-FID	98.3		575-002
Jet Fuel	Calculated				11.3			GC-FID			575-001
Kerosene	Calculated				11.03			GC-FID			575-001 or 575-002
Lauryl alcohol (1-dodecanol)	Calculated				8.7			GC-FID	107.5		575-001
Lauryl alcohol (1-dodecanol)	Calculated				8.7			GC-FID	103	103.8	575-002
Limonene	Calculated				11.1			GC-FID	102		575-002
Mesityl oxide	Calculated		25		13.7			GC-FID			575-001
Mesitylene (1,3,5-trimethylbenzene)	Calculated		25		12.1			GC-FID	93.6		575-001
Mesitylene (1,3,5-trimethylbenzene)	Calculated		25		12.1			GC-FID	96		575-002
Mesitylene (1,3,5-trimethylbenzene)	OSHA 1020		25		12.1	15	8	GC-FID	101		575-002
Methanol (methyl alcohol)	Partial	1895	200	250	1.2	15	8	GC-FID	101	93.8	575-007
2-Methoxy-1-propyl acetate	Calculated				12.1			GC-FID			575-002
1-Methoxy-2-propanol (propylene glycol monomethyl ether)	Calculated		100 †	150 #	14.7			GC-FID	82.9		575-001
1-Methoxy-2-propanol (propylene glycol monomethyl ether)	Calculated		100 †	150 #	14.7			GC-FID	100	106	575-002
1-Methoxy-2-propyl acetate (propylene glycol monomethyl ether acetate)	Calculated				12.2			GC-FID	108		575-001
1-Methoxy-2-propyl acetate (propylene glycol monomethyl ether acetate)	Calculated				12.1			GC-FID	103	105	575-002
2-Methoxyethanol (methyl CELLOSOLVE)	Calculated		0.1		16.1			GC-FID	94.7		575-001
2-Methoxyethanol (methyl CELLOSOLVE)	Calculated		0.1		16.1			GC-FID	91.1	81.8	575-002
2-[2-Methoxyethoxy] ethanol (diethylene glycol monomethyl ether)	Calculated				11.3			GC-FID			575-002
2-Methoxyethyl ether (diethylene glycol dimethyl ether)	Calculated				11.5			GC-FID			575-002
Methoxyflurane	Calculated				2			GC-FID	95.7		575-002
Methyl acetate	Calculated		200	250 #	17.8			GC-FID			575-002
Methyl acrylate	Full		10		15.7	15	8	GC-FID	94.3		575-002
Methyl alcohol (Methanol)	Partial	1895	200	250	1.2	15	8	GC-FID	101	93.8	575-007
Methyl amyl alcohol (methyl isobutyl carbinol)	Calculated		25		12						

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Chemical Hazard	Validation Level	Research Report	OSHA PELs Δ		Sampling Rate (ml/min)	Sampling Time		Analytical Method	DE %		SKC VOC Chek 575 Cat. No.
			TWA (ppm)	CLGSTEL (ppm)		Min (min)	Max (hrs)		Std. §	Universal	
Methyl isobutyl ketone (MIBK), (hexone)	Bilevel	1304	100		13.5	30	8	GC-FID	94.6		575-002
Methyl isobutyl ketone (MIBK), (hexone)	OSHA 1004		100		13.62	30	8	GC-FID	92.9	99.5	575-002
Methyl isopropyl ketone	Calculated				14.8			GC-FID			575-002
Methyl isothiocyanate	Calculated				17.36			GC-FID			575-001
Methyl methacrylate (MMA)	Bilevel	1308	100		13.1	7.5	8	GC-FID	100.5		575-002
Methyl n-amyl ketone (2-heptanone)	Calculated		100		12.2			GC-FID	99.8		575-002
2-Methyl pentane	Calculated				14.1			GC-FID			575-001
Methyl propyl ketone (2-pentanone)	Calculated		200		14.8			GC-FID	92.6		575-002
3-Methyl pyrrolidinone	Calculated				13.28			GC-FID			575-002
Methyl styrene (vinyl toluene)	Calculated		100		12.3			GC-FID			575-001
Methyl t-butyl ether (MTBE)	Full	1352			13.6	8.5	8	GC-FID	97.4		575-001
Methyl tert-amyl ether (tert-amyl methyl ether)	Bilevel	1355			13.1	30	8	GC-FID	99		575-001
n-Methyl-2-pyrrolidinone	Calculated		51		13.97			GC-FID			575-001
5-Methyl-3-heptanone	Calculated		25		11.4			GC-FID	87.5		575-001
5-Methyl-3-heptanone	Calculated		25		11.4			GC-FID	110.7		575-002
Methylal (dimethoxymethane)	Calculated		1000		17.1			GC-FID			575-001
Methylchloride (chloromethane)	Calculated				24.6			GC-FID			575-002
1-Methylcyclohexanol	Full		100		12.4	15	8	GC-FID	94.7		575-001
1-Methylcyclohexanol	Full		100		12.4	15	8	GC-FID	108		575-002
Methylcyclopentane	Calculated				14.9			GC-FID			575-001
Methylene chloride (dichloromethane)	Full	1323	25	125	14.7	60	8	GC-FID	96		575-001
3-Methylhexane	Calculated				12.8			GC-FID			575-001
alpha-Methylstyrene	Bilevel	1359		100 C	12.6	15	12	GC-FID	95.7		575-002
Mineral spirits	Calculated		500		10.95			GC-FID			575-001
Monochlorotoluene (1-chloro-2-methylbenzene; OXSOL 10)	Bilevel		50 †		13.0	15	8	GC-FID	91.8		575-001
Monochlorotoluene (1-chloro-2-methylbenzene; OXSOL 10)	Bilevel		50 ‡		13.0	15	8	GC-FID	91		575-002
Neohexane (2,2-dimethylbutane)	Calculated				14.2			GC-FID			575-001
Nitrobenzene	Calculated				12.6			GC-FID			575-001
Nonane	Bilevel				10.6	15	8	GC-FID	103		575-001
Nonyl alcohol	Calculated				10.2			GC-FID	96.80		575-002
Octadecane	Calculated				7.1			GC-FID			575-001
Octamethylcyclotetrasiloxane (D4)	Partial	1890	10 ▼		6.32	15	8	GC-FID	97.2		575-001
Octamethyltrisiloxane (L3)	Partial	1902	200 †		8.47	15	8	GC-FID	98.3		575-001
n-Octane	Bilevel		500		12.7	15	8	GC-FID	106		575-001
n-Octane	Bilevel		500		12.7	15	8	GC-FID	110		575-002
Octanol (octyl alcohol)	Calculated				10.86			GC-FID			575-002
1-Octene	Calculated				11.99			GC-FID			575-001
Octyl alcohol (octanol)	Calculated				10.86			GC-FID			575-002
OXSOL 10 (monochlorotoluene [1-chloro-2-methyl benzene])	Bilevel		50 †		13	15	8	GC-FID	91.8		575-001
OXSOL 10 (monochlorotoluene [1-chloro-2-methyl benzene])	Bilevel		50 ‡		13	15	8	GC-FID	91		575-002
Parachlorobenzotrifluoride (1-chloro-4-[trifluoromethyl] benzene; OXSOL 100)	Bilevel		25 ◊		11.8	15	8	GC-FID	102		575-001
Parachlorobenzotrifluoride (1-chloro-4-[trifluoromethyl] benzene; OXSOL 100)	Bilevel		25 ◊		11.8	15	8	GC-FID	108		575-002
Pentadecane	Calculated				7.93			GC-FID			575-001
n-Pentane	Full	1311	1000		14.9	15	8	GC-FID	105.2		575-001
3-Pentanone (diethyl ketone)	Calculated		200 ‡		14.8			GC-FID	83.9		575-001
3-Pentanone (diethyl ketone)	Calculated		200 ‡		14.8			GC-FID	100.3		575-002
2-Pentanone (methyl propyl ketone)	Calculated		200		14.8			GC-FID	92.6		575-002
1-Pentene	Calculated				16.3			GC-FID			575-001
2-Pentyl acetate (sec-amyl acetate)	Calculated		125		11.8			GC-FID			575-001
Perchloroethylene (tetrachloroethylene)	Full	1686	100	200 C	13.1	7.5	12	GC-FID	100.8		575-001
Perchloroethylene (tetrachloroethylene)	OSHA 1001		100	200 C	13.06	15	8	GC-FID	95.4		575-002
Perfluoromethylcyclohexane	Partial				10.2			GC-FID	102		575-002
Phenol (carbolic acid)	Calculated		5	15.6 C	14.5			GC-FID			575-001 or 575-002
Phenyl ether (diphenyl oxide)	Calculated		1		10.4			GC-FID			575-001
Phenyl glycidyl ether	Calculated		10		11.6			GC-FID			575-001
4-Phenylcyclohexene	Calculated				11.53			GC-FID			575-001 or 575-002
alpha-Pinene	Partial	1840			11.3	15	8	GC-FID	108.6		575-002
Propane	Calculated		1000		21.73			GC-FID			575-001
n-Propanol (propyl alcohol)	Calculated		200		17.7			GC-FID	87.3		575-001
n-Propanol (propyl alcohol)	Calculated		200		17.7			GC-FID	97.8		575-002
Propionitrile	Calculated		6 ‡		18.61			GC-FID			575-001
n-Propyl acetate	Calculated		200		14.1			GC-FID	87.5		575-001
n-Propyl acetate	Calculated		200		14.1			GC-FID	101.1		575-002
Propyl alcohol (n-propanol)	Calculated		200		17.7			GC-FID	87.3		575-001
Propyl alcohol (n-propanol)	Calculated		200		17.7			GC-FID	97.8		575-002
Propyl bromide (1-bromopropane)	Full	1740	0.1		14.4	30	8	GC-FID	100		575-001
Propyl bromide (1-bromopropane)	Full	1740	0.1		14.7	30	8	GC-FID	107		575-002
n-Propylbenzene	Calculated				12.1			GC-FID	101		575-002
Propylene dichloride (1,2-dichloropropane)	Bilevel		75		14.3	15	8	GC-FID	97.7		575-001
Propylene glycol monomethyl ether (1-methoxy-2-propanol)	Calculated		100 ‡	150 #	14.7			GC-FID	82.9		575-001
Propylene glycol monomethyl ether (1-methoxy-2-propanol)	Calculated		100 ‡	150 #	14.7			GC-FID	100	106	575-002

See page 244 for abbreviations.

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VOC 575 Passive Samplers

Chemical Hazard	Validation Level	Research Report	OSHA PELs Δ		Sampling Rate (ml/min)	Sampling Time		Analytical Method	DE %		SKC VOC Chek 575 Cat. No.
			TWA (ppm)	CLGSTEL (ppm)		Min (min)	Max (hrs)		Std. §	Universal	
Propylene glycol monomethyl ether acetate (1-methoxy-2-propyl acetate)	Calculated				12.2			GC-FID	108		575-001
Propylene glycol monomethyl ether acetate (1-methoxy-2-propyl acetate)	Calculated				12.1			GC-FID	103	105	575-002
Propylene oxide	Calculated		100		19.9			GC-FID	98		575-001
Propylene oxide	Calculated		100		19.9			GC-FID	99.7		575-002
Pyridine	Calculated		5		16.6			GC-FID	88.2	93.8	575-002
Sevoflurane	Partial	1893		2	12.8	30	4	GC-FID	100		575-002
Solvent naphtha (petroleum) light aromatic	Calculated				11.61			GC-FID			575-001 or 575-002
Stoddard solvent	Calculated		500		10.95			GC-FID			575-001
Styrene	Full	1313	100	200 C	13.7	15	8	GC-FID	86.3		575-002
Styrene	OSHA 1014		100	200 C	13.55	15	8	GC-FID	96.7		575-006
1,1,1,2-Tetrachloroethane	Calculated				13.63			GC-FID	98.3		575-002
1,1,2,2-Tetrachloroethane	Bilevel		5		11.8	480 ∞	8	GC-FID	64.4*		575-001
Tetrachloroethylene (perchloroethylene)	Full	1686	100	200 C	13.1	7.5	12	GC-FID	100.8		575-001
Tetrachloroethylene (perchloroethylene)	OSHA 1001		100	200 C	13.06	15	8	GC-FID	95.4		575-002
Tetradecane	Calculated				8.3			GC-FID			575-001
Tetrahydrofuran	Partial	1841	200		17.7	15	8	GC-FID	100.6		575-002
1,2,3,4-Tetramethylbenzene	Calculated				11.1			GC-FID			575-001
1,2,3,5-Tetramethylbenzene	Calculated				10.8			GC-FID			575-001
1,2,4,5-Tetramethylbenzene	Calculated				11.2			GC-FID	86.6		575-002
Toluene	Bilevel		200	300 C	14.5	15	8	GC-FID	97.9		575-001
Toluene	OSHA 111		200	300 C	14.89	10	8	GC-FID	97	93.1	575-002
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	Calculated		1000	1250 #	14.1			GC-FID			575-001
1,2,3-Trichlorobenzene	Calculated				11.34			GC-FID			575-001
1,2,4-Trichlorobenzene	Calculated			5 C	11.4			GC-FID			575-001
1,1,2-Trichloroethane	Bilevel		10		12.5	15	8	GC-FID	96.7		575-001
1,1,1-Trichloroethane (methyl chloroform)	Bilevel		350		14.1	15	8	GC-FID	99.9		575-001
Trichloroethylene	Full		100	200 C	14.9	15	8	GC-FID	102		575-001
Trichloroethylene	OSHA 1001		100	200 C	14.24	15	8	GC-FID	97.5		575-002
Trichlorofluoromethane (Freon 11)	Calculated				16.65			GC-FID			575-001
1,2,3-Trichloropropane	Bilevel		50		11.9	15	8	GC-FID	98.1		575-001
Tridecane	Calculated				9.2			GC-FID			575-001
Trifluoromethyl benzene (benzotrifluoride; OXSOL 2000)	Bilevel		100 ◊		13.3	15	8	GC-FID	106		575-001
Trifluoromethyl benzene (benzotrifluoride; OXSOL 2000)	Bilevel		100 ◊		13.3	15	8	GC-FID	107		575-002
1,2,3-Trimethylbenzene	Calculated		25 †		12.0			GC-FID	91.1		575-001
1,2,3-Trimethylbenzene	Calculated		25 †		12.0	15	8	GC-FID	93.8		575-002
1,2,3-Trimethylbenzene	OSHA 1020		25 †		11.6	15	4	GC-FID	98.3		575-002
1,2,4-Trimethylbenzene	OSHA 1020		25 †		11.7	15	4	GC-FID	93.8		575-002