

VOC Chek 575 Series Selection Guide

On-worker 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. Visit www.skinc.com and download our free SKC Sampling Guide app to access this information on your Android or Apple device.

Validation Levels

See the Validation Level column in this guide to determine the level of scientific testing. Go to www.skinc.com and search the number in the Research Report column to access online research reports.

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.

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.

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)	CLGSEL (ppm)		Min (min)	Max (hrs)			
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	240	8	GC-FID	90.2	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	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
Aniline	Calculated		5		14.2			GC-FID		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	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
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

See page 212 for abbreviations.

Chemical Hazard	Validation Level	Research Report	OSHA PELs Δ		Sampling Rate (ml/min)	Sampling Time		Analytical Method	DE % $\S$	SKC VOC Chek 575 Cat. No.
			TWA (ppm)	CLG-STEL (ppm)		Min (min)	Max (hrs)			
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#	15.6			GC-FID	94	575-001
n-Butanol (n-butyl alcohol)	Calculated		100	50#	15.6			GC-FID	100	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	575-002
2-Butanone (methyl ethyl ketone, MEK)	Bilevel	1306	200	300#	17.1	15	12	GC-FID	100	575-002
2-Butanone (methyl ethyl ketone, MEK)	OSHA 1004		200	300#	16.88		8	GC-FID	92.3	575-002
2-Butoxyethanol (butyl CELLOSOLVE solvent)	Calculated		50		12			GC-FID	71.2	575-001
2-Butoxyethanol (butyl CELLOSOLVE solvent)	Calculated		50		12			GC-FID	89.7	575-002
n-Butyl acetate	Full		150	200#	12.3	15	8	GC-FID	90.4	575-001
n-Butyl acetate	Full		150	200#	13.2	15	8	GC-FID	98.7	575-002
n-Butyl acetate	OSHA 1009		150	200#	13.07	15	8	GC-FID	99.2	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	575-002
n-Butyl alcohol (1-butanol)	Calculated		100	50 C	15.5			GC-FID	94	575-001
n-Butyl alcohol (1-butanol)	Calculated		100	50 C	15.5			GC-FID	100	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	575-002
t-Butyl benzene	Calculated				11.3			GC-FID		575-002
Butyl CELLOSOLVE acetate (ethylene glycol monobutyl ether acetate)	Calculated		5		10.4			GC-FID		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 (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/m ³		10.8			GC-FID	94.2	575-001
Camphor	Calculated		2 mg/m ³		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 (ethoxyethyl acetate)	Calculated		100		12.1			GC-FID	52.7	575-001
2-CELLOSOLVE acetate (ethoxyethyl acetate)	Calculated		100		12.1			GC-FID	95.4	575-002
1-Chloro-2-methylbenzene (monochlorotoluene; OXSOL 10)	Bilevel		50‡		13	15	8	GC-FID	91.8	575-001
1-Chloro-2-methylbenzene (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		100	200 C	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	575-002
Cyclohexene	Calculated		300		15.4			GC-FID	102	575-001
Cyclohexene	Calculated		300		15.4			GC-FID	106	575-002

See page 212 for abbreviations.

Chemical Hazard	Validation Level	Research Report	OSHA PELs Δ		Sampling Rate (ml/min)	Sampling Time		Analytical Method	DE % $\S$	SKC VOC Chek 575 Cat. No.
			TWA (ppm)	CL&STEL (ppm)		Min (min)	Max (hrs)			
Cyclopentane	Calculated				16.8			GC-FID		575-001
p-Cymene (4-isopropyltoluene)	Calculated				11.3			GC-FID		575-001
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	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				13.8	30	4	GC-FID	94.3	575-002
Diacetone alcohol	Calculated		50		12.4			GC-FID	92.9	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
Dichloroethyl ether	Calculated		5‡	15 C	12.5			GC-FID		575-001
1,2-Dichloroethylene	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
1,1-Dichloroethylene (vinylidene chloride)	Bilevel		1		12.3	60	8	GC-FID	95.2	575-001
Dichloromethane (> 4 hrs to 8 hrs) (methylene chloride)	Full	1323	25	125	14.7	240	8	GC-FID	96	575-001
Dichloromethane (15 min to 4 hrs) (methylene chloride)	Full	1323	25	125	16.0	15	4	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
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		575-001
2,5-Dimethyl hexane	Calculated				11.86			GC-FID		575-001
2,2-Dimethyl methane	Calculated				21.7			GC-FID		575-001
Dimethyl pentanedioate	Calculated				10.8			GC-FID		575-001
Dimethyl sulfide	Calculated				19			GC-FID		575-001
Dimethyl sulfoxide	Calculated				16.3			GC-FID		575-002
N,N-Dimethylaniline	Calculated		5		12			GC-FID		575-001
2,2-Dimethylbutane (neohexane)	Calculated				14.2			GC-FID		575-001

See page 212 for abbreviations.

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)	CLG&STEL (ppm)		Min (min)	Max (hrs)				
trans-1,2-Dimethylcyclohexane	Calculated				12.4			GC-FID	106.1	575-001	
N,N-Dimethylformamide (DMF)	Calculated		10		16.4			GC-FID	87.2	575-002	
2,3-Dimethylpentane	Calculated				12.8			GC-FID		575-001	
1,4-Dioxane	Calculated		100		15.8			GC-FID	91.4	575-002	
Diphenyl oxide (phenyl ether)	Calculated		1		10.4			GC-FID		575-001	
Dipropyl ketone	Calculated		50‡		12.3			GC-FID	85.3	575-001	
Dipropyl ketone	Calculated		50‡		12.3			GC-FID	112	575-002	
Dipropylene glycol methyl ether	Calculated		100		10.8			GC-FID	84.3	575-002	
Dodecamethylcyclohexasiloxane	Calculated				6.75			GC-FID		575-001	
n-Dodecanol (lauryl alcohol)	Calculated				8.7			GC-FID	107.5	575-001	
n-Dodecanol (lauryl alcohol)	Calculated				8.7			GC-FID	103	575-002	
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	575-002	
Dodecyl methacrylate	Calculated				7.6			GC-FID		575-002	
Enflurane (ethrane)	Partial			2 C	13.8	30	4	GC-FID	101	575-002	
Epichlorohydrin	Calculated		5		16.4			GC-FID	70.8	575-001	
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	575-002	
2-Ethoxyethanol	Calculated		200		14.4			GC-FID	100.8	575-001	
2-Ethoxyethanol	Calculated		200		14.4			GC-FID	111.2	575-002	
2-Ethoxyethyl acetate (CELLOSOLVE acetate)	Calculated		100		12.1			GC-FID	52.7	575-001	
2-Ethoxyethyl acetate (CELLOSOLVE acetate)	Calculated		100		12.1			GC-FID	95.4	575-002	
Ethane (enflurane)	Calculated			2 C	13.8			GC-FID		575-001 or 575-002	
Ethyl acetate	Bilevel		400		13.1	15	8	GC-FID	92.8	575-001	
Ethyl acetate	Bilevel		400		14.4	15	8	GC-FID	100	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	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		8	GC-FID	99.1	575-002	
Ethyl bromide (bromoethane)	Calculated		200		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 C	15.3			GC-FID	92.3	575-001	
Ethylene dibromide (1,2-dibromoethane)	Calculated		20	30 C	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			100 mg/m 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				10.5			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	43.8	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	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		1000		16.65			GC-FID		575-001	
Freon 113 (1,1,2-trichloro-1,2,2-trifluoroethane)	Calculated		1000		14.1			GC-FID		575-001	

See page 212 for abbreviations.

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)	CL&STEL (ppm)		Min (min)	Max (hrs)			
Freon 114 (1,2-dichlorotetrafluoroethane)	Calculated		1000		15.3			GC-FID		575-001
Freon 12 (dichlorodifluoromethane)	Calculated		1000		18.6			GC-FID		575-001
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				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-amyl 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	575-002
2-Hexanone (methyl butyl ketone MBK)	Partial	1873	100		14.3	15	8	GC-FID	104	575-002
2-Hexene	Calculated				14.5			GC-FID		575-001
Hexone (methyl isobutyl ketone [MIBK])	Bilevel	1304	100	75#	13.5	30	8	GC-FID	94.6	575-002
Hexone (methyl isobutyl ketone [MIBK])	OSHA 1004		100	75#	13.62		8	GC-FID	92.9	575-002
sec-Hexyl acetate	Calculated		50		11.1			GC-FID		575-002
Hexyl alcohol (hexanol)	Calculated				12.64			GC-FID	92.9	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		5		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	575-002
Isobutyl alcohol	Calculated		100		15.6			GC-FID	100.0	575-002
Isoflurane	Full				13.2	15	8	GC-FID	96.0	575-002
Isooctyl alcohol	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	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 (2-propanol)	Partial	1839	400	500#	18.42	15	8	GC-FID	103.5	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		50		10.3			GC-FID	98.3	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	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
Methanol (methyl alcohol)	Partial	1895	200	250	1.2	15	8	GC-FID	101	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	575-002

See page 212 for abbreviations.

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)	CLG&STEL (ppm)		Min (min)	Max (hrs)			
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	575-002
Methoxyflurane	Calculated				13.3			GC-FID	95.7	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	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
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	575-007
Methyl amyl alcohol (methyl isobutyl carbinol)	Calculated		25		12.8			GC-FID		575-002
Methyl bromide (bromomethane)	Calculated		20		22.1			GC-FID		575-002
2-Methyl butane (isopentane)	Calculated		1000	610#	15.8			GC-FID		575-001
Methyl butyl ketone (MBK) (2-hexanone)	Partial	1873	100		14.3	15	8	GC-FID	104	575-002
Methyl CELLOSOLVE (2-methoxyethanol)	Calculated		0.1		16.1			GC-FID	94.7	575-001
Methyl CELLOSOLVE (2-methoxyethanol)	Calculated		0.1		16.1			GC-FID	91.1	575-002
Methyl CELLOSOLVE acetate (ethylene glycol monomethyl ether acetate)	Calculated		0.1		12.9			GC-FID	43.8	575-001
Methyl CELLOSOLVE acetate (ethylene glycol monomethyl ether acetate)	Calculated		0.1		12.9			GC-FID	92.4	575-002
Methyl chloroform (1,1,1-trichloroethane)	Bilevel		350		14.1	15	8	GC-FID	99.9	575-001
Methyl cyclohexane	Bilevel		500		14.2	15	8	GC-FID	106	575-001
Methyl ethyl ketone (2-butanone)	Bilevel	1306	200		17.1	15	12	GC-FID	100	575-002
Methyl ethyl ketone (2-butanone)	OSHA 1004		200		16.88		8	GC-FID	92.3	575-002
Methyl formate	Calculated		100		20.58			GC-FID		575-001
Methyl iodide (iodomethane)	Calculated		2		18.7			GC-FID		575-001
Methyl isoamyl ketone	Calculated		50		12.3			GC-FID		575-002
Methyl isobutyl carbinol (methyl amyl alcohol)	Calculated		25		12.8			GC-FID		575-002
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		8	GC-FID	92.9	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	68.1	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	15	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	240	8	GC-FID	96	575-001
Methylene chloride (dichloromethane)	Full	1323	25	125	16.0	15	4	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-methyl benzene; OXSOL 10)	Bilevel		50 $\pm$		13.0	15	8	GC-FID	91.8	575-001
Monochlorotoluene (1-chloro-2-methyl benzene; OXSOL 10)	Bilevel		50 $\pm$		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	Calculated				8.6			GC-FID		575-001

See page 212 for abbreviations.

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)	CLG-STEL (ppm)		Min (min)	Max (hrs)			
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	68.1	575-001
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
2-Pentyl acetate (sec-amyl acetate)	Calculated		125		11.8			GC-FID		575-002
Perchloroethylene (tetrachloroethylene)	Full	1686	100	200 C	13.1	15	8	GC-FID	100.8	575-001
Perchloroethylene (tetrachloroethylene)	OSHA 1001		100	200 C	13.06	5	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		14.3	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-dichloro propane)	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	575-002
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	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	62.1	575-001
Pyridine	Calculated		5		16.6			GC-FID	88.2	575-002
Sevoflurane	Partial				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	5	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

See page 212 for abbreviations.

Chemical Hazard	Validation Level	Research Report	OSHA PELs Δ		Sampling Rate (ml/min)	Sampling Time		Analytical Method	DE % $\S$	SKC VOC Chek 575 Cat. No.
			TWA (ppm)	CL $\&$ STEL (ppm)		Min (min)	Max (hrs)			
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	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	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	5	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
1,2,4-Trimethylbenzene	Partial		25		13.05			GC-FID	88.4	575-001
1,2,4-Trimethylbenzene	Partial	1837	25		13.05	15	8	GC-FID	88.9	575-002
1,3,5-Trimethylbenzene (mesitylene)	Calculated		25		12.1			GC-FID	93.6	575-001
1,3,5-Trimethylbenzene (mesitylene)	Calculated		25		12.1			GC-FID	96	575-002
2,2,4-Trimethylpentane	Calculated				11.89			GC-FID		575-001
n-Undecane	Calculated				9.62			GC-FID		575-001
Vinyl acetate	Full	1860		4 C#	16.4	30	8	GC-FID	92	575-002
Vinyl bromide	Calculated		LFC†		19.6			GC-FID		575-001
Vinyl chloride	Calculated		1		21.4			GC-FID		575-001
Vinyl toluene (methyl styrene)	Calculated		100		12.3			GC-FID		575-001
n-Vinyl-2-pyrrolidone	Calculated				13.9			GC-FID		575-001
4-Vinylcyclohexene	Calculated				12.4			GC-FID		575-001
Vinylidene chloride (1,1-dichloroethene)	Bilevel		1		12.3	60	8	GC-FID	95.2	575-001
m-Xylene	Bilevel		100	150#	12.5	15	8	GC-FID	96.6	575-001
m-Xylene	Bilevel		100	150#	12.5	15	8	GC-FID	101	575-002
m-Xylene	OSHA 1002		100	150#	13.82		8	GC-FID	96.1	575-002
o-Xylene	Bilevel		100	150#	11.9	15	8	GC-FID	91	575-001
o-Xylene	OSHA 1002		100	150#	14.24		8	GC-FID	89.4	575-002
p-Xylene	Bilevel		100	150#	12.8	15	8	GC-FID	95.6	575-001
p-Xylene	Bilevel		100	150#	12.8	15	8	GC-FID	103	575-002
p-Xylene	OSHA 1002		100	150#	13.94		8	GC-FID	95.3	575-002

* Lower than the NIOSH-accepted guideline
 # NIOSH Short Term Exposure Limit (STEL)
 ∞ Depends on detector sensitivity
 NIOSH Recommended Exposure Limit (REL)
 ◇ Occidental Chemical corporate exposure limits
 ≈ Valid for PEL samples greater than 4 hours duration. If more than 1000 ppm of other contaminants are present, reduce maximum sample time to 4 hours.
 Δ Agency standards for OSHA listings represent the OSHA PELs reported in 29 CFR 1910.1000 Part 1910, Section 1000.

§ The values given for the desorption efficiency were obtained in SKC Inc. laboratories. Call SKC for details on the desorption solvent used.
 ¶ OSHA construction industry standards
 ✓ Valid for STEL samples up to 4 hours duration
 π If more than 1000 ppm contaminants are present, reduce maximum sample time to 4 hours.
 EL Excursion Limit
 LFC Lowest feasible concentration

More information www.skcinc.com, search "Passive."