

## Trace Source™ Permeation Tubes – Chemical Gas Standards List

3176	Acenaphthene	▼m 4022	Boron trifluoride	▼	5001	Carbon Monoxide
3025	Acetaldehyde	▼	4004	Bromine	4009	Carbon tetrachloride
2033	Acetamide	4086	1-Bromo-4-fluorobenzene	▼m	4014	Carbonyl fluoride
3039	Acetic acid	4059	1-Bromobutane	▼	1003	Carbonyl Sulfide
3026	Acetone	4083	Bromochloromethane	3153	3-Carene	
2014	Acetonitrile	4103	Bromodichloromethane	3204	Catechol	
3184	Acetophenone	4096	Bromoform	^	3263	α-Cedrene
3004	Acetylene	4106	Bromonitromethane	3091	Cellosolve	
▼	3033	Acrolein	4098	1-Bromopropane	3049	Cellosolve acetate
3202	Acrolein dimethyl acetal	4081	2-Bromopropane	▼	4001	Chlorine
3068	Acrylic acid	3085	1,2-Butadiene	▼	4115	Chloroacetone
2009	Acrylonitrile	3011	1,3-Butadiene	4038	Chlorobenzene	
2004	Acrylonitrile-d3	3009	n-Butane	4085	Chlorobenzene-d5	
▼♦	3212	Allyl alcohol	3053	n-Butanol	4102	Chlorodibromomethane
4052	Allyl chloride	3215	sec-Butanol	4100	1,1,1-Chlorodifluoroethane	
3250	2-Aminoacetophenone	3048	tert-Butanol	▼	4093	2-Chloroethanol
2070	4-Aminobiphenyl	3029	2-Butanone	4051	Bis(2-chloroethyl)ether	
▼	2003	Ammonia	3214	3-Buten-2-ol	1027	2-Chloroethyl ethyl sulfide
▼	2100	Ammonia (15N, 98%+, D3, 98%)	3013	1-Butene	1038	2-Chloroethyl methyl sulfide
3209	n-Amyl acetate	3014	cis-2-Butene	1050	2-Chloroethyl phenyl sulfide	
3198	Amyl acetate	3015	trans-2-Butene	1028	2-Chloroethyl- (3-chloropropyl) sulfide	
3216	tert-Amyl alcohol	3043	n-Butyl acetate	4012	Chloroform	
3199	Amyl alcohol	3100	Butyl acrylate	4104	Chloriodomethane	
1042	tert-Amyl mercaptan	3092	Butyl cellosolve	4088	bis-(Chloromethyl) ether	
3213	tert-Amyl methyl ether	4087	n-Butyl chloride	4079	Chloromethyl methyl ether	
2028	Aniline	4055	tert-Butyl chloride	4033	2-Chlorophenol	
2072	o-Anisidine	3139	tert-Butyl ethyl ether	▼	4049	Chloropicrin
3127	Anthracene	▼	2038	Butyl isocyanate	4082	2-Chloropropane
5005	Argon	1022	2-Butyl mercaptan	4112	Chlorpyrifos	
▼	4089	Arsenic trichloride	1015	n-Butyl mercaptan	3070	m-Cresol
▼	5014	Arsine	1019	tert-Butyl mercaptan	3106	o-Cresol
3061	Benzaldehyde	3138	tert-Butyl methyl ether	3107	p-Cresol	
3018	Benzene	2109	n-Butyl nitrate	▼	3065	Crotonaldehyde
3220	Benzene-d <sub>6</sub>	2061	n-Butylamine	3180	Cumene	
3128	Benzofuran	2110	tert-Butylamine	▼	2039	Cyanogen
3194	Benzoic acid	3219	Butylated hydroxytoluene	2092	Cyanogen bromide	
3251	Benzyl acetate	3179	Butylbenzene	▼	2040	Cyanogen chloride
3108	Benzyl alcohol	3143	4-tert-Butyltoluene	2037	3-Cyanopyridine	
4069	Benzyl chloride	3034	Butyraldehyde	3105	Cyclohexane	
1043	Benzyl mercaptan	3073	Butyric acid	3117	Cyclohexanol	
3177	Bibenzyl	3124	γ-Butyrolactone	3035	Cyclohexanone	
3190	Bicyclo[2.2.1]hepta-2,5-diene	2029	Butyronitrile	3131	Cyclopentane	
3178	Biphenyl	2103	Cadaverine	3211	Cyclopropanecarboxalde- hyde	
▼m	4107	Boron trichloride	5002	Carbon dioxide		
			▼	1005	Carbon disulfide	

▼ = Special Packaging \* = When Available  
m = Monel Cylinder ♦ = Uncertified only  
^ = Added since last release

KIN-TEK adds compounds on a regular basis.  
If you are needing a compound not on this list,  
contact us so we can confirm availability.

KIN-TEK Analytical, Inc.  
504 Laurel St., La Marque, Tx 77568 USA  
Ph. 409-938-3627 • 1-800-326-3627  
sales@kin-tek.com

To learn more about KIN-TEK visit [www.kin-tek.com](http://www.kin-tek.com)  
© 2020 KIN-TEK Analytical, Inc. 2020/01 Rev. 0003

3162	<i>p</i> -Cymene
5046	Decamethylcyclopentasiloxane
3062	Decane
5023	Deuterium oxide
3144	Diacetone alcohol
2048	1,4-Diaminocyclohexane
2074	2,4-Diaminotoluene
1048	Dibutyl disulfide
1049	Dibutyl sulfide
4078	1,4-Dichloro-2-butene
4027	1,2-Dichlorobenzene
4072	1,3-Dichlorobenzene
4073	1,4-Dichlorobenzene
4048	1,1-Dichloroethane
4031	1,2-Dichloroethane
4067	<i>cis</i> -1,2-Dichloroethylene
4127	<i>trans</i> -1,2-Dichloroethylene
4101	1,1,1-Dichlorofluoroethane
4121	1,6-dichlorohexane
3247	Dichloromethane-d2
4047	1,2-Dichloropropane
4070	<i>cis</i> -1,3-Dichloropropene
4071	<i>trans</i> -1,3-Dichloropropene
▼m 4061	Dichlorosilane
4113	Dichlorvos
5029	Dicyclohexylmethylphosphonate
3140	Dicyclopentadiene
3028	Diethyl ether
5035	Diethyl ethylphosphonate
3210	Diethyl malonate
5033	Diethyl methylphosphonate
5054	O,S-Diethyl methylphosphonothioate
5038	Diethyl phosphite
2044	Diethylamine
1044	2-(Diethylamino)ethanethiol
3165	1,2-Diethylbenzene
5028	Diethyldimethylphosphoramidate
2018	Diethylenetriamine
2062	Diethylethanolamine
1031	Diethylmethylphosphonothioate
2088	3,5-Difluoroaniline
4090	1,3-Difluorobenzene
4084	1,4-Difluorobenzene
3233	Diisobutyl ketone
5052	Diisobutyl methylphosphonate
4111	Diisopropyl fluorophosphate
2008	Diisopropylamine
2051	2-(Diisopropylamino)ethanol
3167	1,4-Diisopropylbenzene
5016	Diisopropylmethylphosphonate
3222	2,6-Diisopropylphenol
2045	2,6-Diisopropylphenyl isocyanate
3221	1,2-Dimethoxyethane

3119	Dimethoxymethane
5021	Dimethyl carbonate
▼ 1007	Dimethyl disulfide
3027	Dimethyl ether
5024	Dimethyl ethoxysilane
5018	Dimethyl ethylphosphonate
2021	Dimethyl formamide
5017	Dimethyl methylphosphonate
5030	Dimethyl phosphite
3227	Dimethyl phthalate
▼ 1011	Dimethyl sulfate
1006	Dimethyl sulfide
1025	Dimethyl sulfone
1039	Dimethyl sulfoxide
1047	Dimethyl trisulfide
3189	2,3-Dimethyl-2-butene
2113	2,3-Dimethyl-2,3-dinitrobutane
2042	Dimethylacetamide
2005	Dimethylamine
▲ 3264	4,8 Dimethyldecanal
2071	<i>N,N</i> -Dimethylaniline
3133	2,2-Dimethylbutane
2067	Dimethylethanolamine
3110	2,5-Dimethylfuran
▼ 2016	1,1-Dimethylhydrazine
3166	1,2-Dimethylnaphthalene
3172	2,3-Dimethylphenol
5039	Dimethylsilane
2111	2,6-Dinitrotoluene
2068	2,4-Dinitrotoluene
3045	1,4-Dioxane
5051	Dipinacolyl methylphosphonate
3125	Dipropylene glycol methyl ether
5025	Disilane
1030	1,4-Dithiane
4116	Dodecafluorocyclohexane
3145	Dodecane
3103	Dowtherm A
4039	Epichlorohydrin
3163	1,2-Epoxybutane
2096	Epsilon-Caprolactam
3002	Ethane
1026	1,2-Ethanedithiol
4126	4-Ethoxy-1,1,1-trifluoro-3-buten-2-one, 94%
3030	Ethyl acetate
3086	Ethyl acetylene
3097	Ethyl acrylate
3021	Ethyl alcohol
2075	Ethyl carbamate
4017	Ethyl chloride
1017	Ethyl disulfide
3141	Ethyl lactate
1010	Ethyl mercaptan
1013	Ethyl methyl sulfide
5043	Ethyl methylphosphonate
2046	Ethyl morpholine

3230	Ethyl octanoate
2035	Ethyl pyrazine
2026	3-Ethyl pyridine
1012	Ethyl sulfide
3235	Ethyl vanillin
2006	Ethylamine
2064	2-(Ethylamino)ethanol
3041	Ethylbenzene
3094	Ethylbenzene-d10
2065	Ethyl-diethanolamine
3003	Ethylene
▼ 4054	Ethylene dibromide
3078	Ethylene glycol
▼ 3023	Ethylene oxide
2020	Ethylenediamine
▼ 2049	Ethyleneimine
3031	2-Ethylhexanol
3101	2-Ethylhexyl acrylate
4124	5-Ethylidene-2-norbornene
2036	2-Ethylimidazole
3244	4-Ethylphenol
3173	2-Ethyltoluene
3236	Eugenol
4058	Fluorobenzene
3024	Formaldehyde
2032	Formamide
3038	Formic acid
4025	Freon 11
4050	Freon 113
4056	Freon 114
4023	Freon 116
4040	Freon 12
4024	Freon 13
4037	Freon 21
4026	Freon 22
3104	Furan
3197	Furfural
5015	Germane
◆ 3158	Glutaraldehyde
3206	Glycerol
2106	Glycine
5008	Helium
3243	<i>trans, trans</i> -2,4-Heptadienal
3237	Heptanal
3126	Heptane
2056	Heptanenitrile
3142	2-Heptanone
2057	Heptyl cyanide
4032	Hexachloro-1,3-butadiene
4076	Hexachlorobenzene
3130	Hexadecane
3185	Hexaldehyde
5031	Hexamethylcyclotrisiloxane
5020	Hexamethyldisilazane
5026	Hexamethyldisiloxane
2080	Hexamethylene-1,6-diisocyanate
2114	Hexamethylenetetramine
3017	Hexane
2055	Hexanenitrile
3225	Hexanoic acid

3156	2-Hexanone
3109	1-Hexene
^ 3262	$\alpha$ -Humulene
▼ 2013	Hydrazine
5009	Hydrogen
▼m 4007	Hydrogen bromide
▼m 4002	Hydrogen chloride
▼ 2010	Hydrogen cyanide
▼m 4006	Hydrogen fluoride
▼ 1002	Hydrogen sulfide
3234	3-Hydroxy-3-methylbutene
3192	<i>p</i> -Hydroxybenzaldehyde
3181	Indan
3182	Indene
2101	Indole
^ 4134	1-Iodobutane
4042	Iodine
4105	Iodoethane
4132	Iodoethanol
4125	2-Iodopropane
3115	Isoamyl acetate
3010	Isobutane
3058	Isobutyl acetate
3191	Isobutyl acrylate
3055	Isobutyl alcohol
4094	Isobutyl chloroformate
1016	Isobutyl mercaptan
3183	Isobutylbenzene
3012	Isobutylene
3063	Isobutyraldehyde
3077	Isooctane
3120	Isopentane
3059	Isoprene
3111	Isopropyl acetate
3022	Isopropyl alcohol
3052	Isopropyl ether
1018	Isopropyl mercaptan
3064	Isovaleraldehyde
5010	Krypton
3083	D-Limonene
2093	2,4-Lutidine
3254	3-Methoxyphenol
1046	Malathion
3051	Maleic anhydride
3160	Menthol
3231	L-Menthol
3037	Mesitylene
3066	Methacrolein
3224	Methacrylic acid
3001	Methane
1045	Methanesulfonyl fluoride
3020	Methanol
3090	1-Methoxy-2-propanol
3098	1-Methoxy-2-propanol acetate
3218	2-Methoxybutane
3123	2-(2-Methoxyethoxy)ethanol
3081	2-Methoxyethyl ether
4053	Methylphosphonic difluoride
3116	Methyl acetate

3007	Methyl acetylene
3113	Methyl acrylate
3082	Methyl benzoate
▼ 4015	Methyl bromide
3095	Methyl cellosolve
3096	Methyl cellosolve acetate
4003	Methyl chloride
4029	Methyl chloroform
▼♦ 4114	Methyl chloroformate
3135	Methyl cyclopentane
▼ 2017	Methyl hydrazine
▼ 4041	Methyl iodide
3044	Methyl isobutyl ketone
▼* 2030	Methyl isocyanate
3118	Methyl isopropyl ketone
▼ 2050	Methyl isothiocyanate
▼ 1004	Methyl mercaptan
3114	Methyl methacrylate
2034	2-Methyl pyrazine
2027	3-Methyl pyridine
2041	N-Methyl pyrrolidinone
3074	Methyl salicylate
3075	3-Methyl valeric acid
3067	Methyl vinyl ketone
3200	2-Methyl-1-butanol
3201	3-Methyl-1-butanol
2117	4-Methyl-2-Nitrophenol
2115	2-Methyl-4-nitrophenol
3249	2-Methyl-4(3H)-quinazolinone
2007	Methylamine
2052	2-(Methylamino)ethanol
3226	1-Methylbutadiene
3205	2-Methylbutanal
3240	2-Methylbutyric acid
3241	3-Methylbutyric acid
2063	Methyldiethanolamine
4077	Methylene bromide
4028	Methylene chloride
3169	1-Methylnaphthalene
3174	2-Methylnaphthalene
3134	2-Methylpentane
4057	Methylphosphonic dichloride
3164	$\alpha$ -Methylstyrene
1051	2-Methylthiophene
1052	3-Methylthiophene
1024	3-(Methylthio)propionaldehyde
2015	Monoethanolamine
2095	Morpholine
3152	Myrcene
3040	Naphthalene
5007	Neon
2054	Nicotine
2022	Nitric acid
2081	Nitric acid-d
2086	Nitric acid, 15N, 18O
2001	Nitric Oxide
2082	Nitric-15N-acid
2069	Nitrobenzene
2112	4-Nitrotoluene

5004	Nitrogen
▼ 2002	Nitrogen dioxide
2094	2-Nitrophenol
2116	4-Nitrophenol
2060	N-Nitrosodiethylamine
2076	N-Nitrosodimethylamine
2077	N-Nitrosomorpholine
2083	2-Nitrotoluene
2012	Nitrous oxide
3253	1-Nonanal
3137	<i>n</i> -Nonane
5053	<i>O,S</i> -Diisobutyl methylphosphonothiolate
4021	Octafluoropropane
5044	Octamethylcyclotetrasiloxane
▼ 3229	Octanal
3136	<i>n</i> -Octane
▼ 2058	Octyl cyanide
3239	Oxalic acid
5056	Oxaloacetic acid
5003	Oxygen
4091	Pentafluorobenzene
1023	Pentamethylene sulfide
3016	Pentane
2059	Pentanenitrile
3157	2-Pentanone
3132	1-Pentene
4118	Perfluoro-1,2-dimethylcyclohexane
4131	Perfluoro-1,3-dimethylcyclohexane
4117	Perfluoro (methylcyclohexane)
4122	1,2 Perfluorodimethylcyclobutane
▼* 4046	Perfluoroisobutylene
2053	Perfluorotributylamine
3069	Phenol
▼m 4013	Phosgene
▼ 5013	Phosphine
5042	Phosphoric acid
▼ 4060	Phosphorus oxychloride
▼ 4109	Phosphorus trichloride
3155	Pinacolone
3147	Pinacolyl alcohol
5027	Pinacolyl methylphosphonate
3122	$\alpha$ -Pinene
3154	$\beta$ -Pinene
2108	Piperazine
2043	Piperidine
3008	Propadiene
3005	Propane
3079	1,2-Propanediol
3046	Propionaldehyde
3072	Propionic acid
2023	Propionitrile
3057	<i>n</i> -Propyl acetate
3054	Propyl alcohol
3056	<i>n</i> -Propyl benzene
3217	Propyl ether

1014	<i>n</i> -Propyl mercaptan
2087	Propylamine
3006	Propylene
3071	Propylene oxide
2099	1,2-Propyleneimine
2102	Putrescine
2024	Pyridine
2107	Pyridine-d5
2085	Pyrrole
2105	Pyruvic acid
2031	Quinoline
▼ 5022	Silane
4065	Silicon tetrachloride
▼m 4062	Silicon tetrafluoride
2098	Skatole
3032	Styrene
3089	Styrene oxide
1001	Sulfur dioxide
3099	Syringaldehyde
3188	$\alpha$ -Terpinene
4075	1,1,2,2-Tetrachloroethane
4035	Tetrachloroethylene
3146	Tetradecane
5019	Tetraethyl orthosilicate
4099	1,1,1,2-Tetrafluoroethane
3050	Tetrahydrobenzaldehyde
3060	Tetrahydrofuran
3148	Tetrahydrofurfuryl alcohol
1034	Tetrahydrothiophene
5045	1,1,3,3-Tetramethyldisiloxane

5012	Tetramethylsilane
1029	Thiodiglycol
▼ 4120	Thionyl chloride
1021	Thiophene
4119	Thiophosphoryl chloride
1035	1,4-Thioxane
3186	<i>m</i> -Tolualdehyde
3019	Toluene
2011	2,4-Toluene diisocyanate
2079	2,6-Toluene diisocyanate
3196	Toluene-d8
2073	<i>o</i> -Toluidine
3252	<i>trans</i> -2-Octenal
3238	Tributyl phosphate
2066	Tributylamine
3256	2,4,6-Trichloroanisole
4074	1,2,4-Trichlorobenzene
4068	1,1,2-Trichloroethane
4036	Trichloroethylene
4080	1,2,3-Trichloropropane
4097	Trichlorosilane
3257	Tricresyl phosphate
3150	Tridecane
2097	Triethanolamine
3112	Triethyl phosphate
5032	Triethyl phosphite
2078	Triethylamine
2019	Triethylenetetramine
5055	Triethylsilane
4092	Trifluoroacetic acid
3203	1,1,3-Trimethoxypropane

5034	Trimethyl phosphite
2047	Trimethylamine
3175	1,2,3-Trimethylbenzene
3129	1,2,4-Trimethylbenzene
3170	2,3,5-Trimethylnaphthalene
3171	2,3,5-Trimethylphenol
5040	Trimethylsilane
3245	Trimethylsilanol
3149	Undecane
3168	1-Undecene
3187	Valeraldehyde
3080	Vanillin
* 3093	Velcorin
3047	Vinyl acetate
4019	Vinyl bromide
4020	Vinyl chloride
3084	4-Vinyl cyclohexene
4064	Vinyl fluoride
3102	Vinylcyclohexene monoxide
4030	Vinylidene chloride
2025	4-Vinylpyridine
5011	Water
3255	Whiskey lactone
5006	Xenon
3042	<i>m</i> -Xylene
3076	<i>o</i> -Xylene
3036	<i>p</i> -Xylene
3246	<i>o</i> -Xylene-d10



**Intertek**

The KIN-TEK Analytical, Inc. Quality Management System is registered by Intertek as conforming to the requirements of ISO 9001:2015.

For more information: <https://kin-tek.com/kin-tek-quality>

▼ = Special Packaging \* = When Available  
 m = Monel Cylinder ◆ = Uncertified only  
 ▲ = Added since last release

To learn more about KIN-TEK visit [www.kin-tek.com](http://www.kin-tek.com)

© 2020 KIN-TEK Analytical, Inc. 2020/02 Rev. 0003