

## Fact Sheet: Gastec Detector Tubes Date Stamped in Japan

Gastec Detector Tubes are date stamped in Japan by Gastec with the tubes' shelf life (expiration date) at the time of manufacture. Because these detector tubes are date stamped at the time of manufacture, the Gastec shelf life remaining on the tube at the time of shipment by Nextteq will be less than the shelf life from the date of manufacture shown by Gastec. The shelf life at the time of shipment by Nextteq will be from three years to three months. Nextteq will not ship tubes with less than three months shelf life without the purchaser's express agreement. Nextteq guarantees that no Gastec Detector Tube will have less than three months' shelf life at the time of shipment. We reserve the right to add tubes to this list at any time without notice. Nextteq recommends you confirm the tube shelf life at the time of order placement.

The following tubes are date stamped in Japan when manufactured and could have a shelf life from three months to three years:

### Detector Tubes in Numerical Order by Tube Number

Tube No.	Tube Name	Shelf Life (from date of manufacture)	Requires Refrigeration?
<b>Airtec Tubes</b>			
1A	Carbon monoxide	2	No
2A	Carbon dioxide	2	No
2AG	Carbon dioxide	3	No
6A	Water vapor	2	No
6AG	Water vapor	2	No
6AH	Water vapor	2	No
11A	Nitrogen Oxides	3	No
109A	Oil Mist	2	No
109AD	Oil Mist	2	No
<b>Automatic Gas Sampler Tubes</b>			
3S	Ammonia	3	No
4S	Hydrogen sulfide	1.5	Yes
91P	Formaldehyde	1	Yes
91PL	Formaldehyde	1	Yes
91TP	Formaldehyde	1	Yes
121P	Benzene	2	No
122P	Toluene	2	No
122TP	Toluene	2	No
124S	Styrene	3	No
127P	Dichlorobenzene	2	No
131P	Vinyl chloride	2	No
132P	Trichloroethylene	2	No

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Tube No.	Tube Name	Shelf Life (from date of manufacture)	Requires Refrigeration?
133P	Tetrachloroethylene	2	No
<b>Dosi Tubes</b>			
1D	Carbon monoxide	2	No
1DL	Carbon monoxide	2	Yes
2D	Carbon dioxide	2	No
3D	Ammonia	3	No
3DL	Ammonia	2	No
4D	Hydrogen sulfide	3	No
5D	Sulfur dioxide	3	No
5DH	Sulfur dioxide	3	No
8D	Chlorine	2	No
9D	Nitrogen dioxide	1	Yes
9DL	Nitrogen dioxide	1	Yes
12D	Hydrogen cyanide	3	No
14D	Hydrogen chloride	3	No
17D	Hydrogen fluoride	3	No
32D	Hydrogen peroxide	3	No
81D	Acetic acid	3	No
91D	Formaldehyde	1	Yes
112D	Ethanol	3	No
122DL	Toluene	2	No
132D	Trichloroethylene	1	Yes
133D	Tetrachloroethylene	1	Yes
151D	Acetone	2	Yes
152D	Methyl ethyl ketone	2	Yes
174D	1,3-Butadiene	2	No
<b>Detector Tubes</b>			
1HH	Carbon monoxide	3	No
1H	Carbon monoxide	3	No
1L	Carbon monoxide	3	No
1LA	Carbon monoxide	3	No

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Tube No.	Tube Name	Shelf Life (from date of manufacture)	Requires Refrigeration?
1LC	Carbon monoxide	2	No
1LK	Carbon monoxide	3	No
1LKC	Carbon monoxide	3	No
1LL	Carbon monoxide	3	No
1LM	Carbon monoxide	3	No
1M	Carbon monoxide	3	No
2HH	Carbon dioxide	3	No
2H	Carbon dioxide	3	No
2L	Carbon dioxide	3	No
2LC	Carbon dioxide	2	No
2LL	Carbon dioxide	3	No
3H	Ammonia	3	No
3HM	Ammonia	3	No
3L	Ammonia	3	No
3LA	Ammonia	3	No
3M	Ammonia	3	No
4HH	Hydrogen sulfide	3	No
4H	Hydrogen sulfide	3	No
4HM	Hydrogen sulfide	3	No
4HP	Hydrogen sulfide	3	No
4HT	Hydrogen sulfide	3	No
4L	Hydrogen sulfide	3	No
4LB	Hydrogen sulfide	2	No
4LK	Hydrogen sulfide	3	No
4LL	Hydrogen sulfide	3	No
4LT	Hydrogen sulfide	2	Yes
4M	Hydrogen sulfide	3	No
5H	Sulfur dioxide	3	No
5L	Sulfur dioxide	3	No
5LA	Sulfur dioxide	3	No
5LB	Sulfur dioxide	3	No
5LC	Sulfur dioxide	3	No
5M	Sulfur dioxide	3	No

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Tube No.	Tube Name	Shelf Life (from date of manufacture)	Requires Refrigeration?
6	Water vapor	3	No
6L	Water vapor	3	No
6LLP	Water vapor	3	No
6LP	Water vapor	3	No
7	Phosphine	3	No
7H	Phosphine	2	No
7J	Phosphine	3	No
7L	Phosphine	3	No
7LA	Phosphine	2	No
8HH	Chlorine	3	No
8H	Chlorine	3	No
8LA	Chlorine	3	No
8LL	Chlorine	1	Yes
9L	Nitrogen dioxide	3	No
10	Nitrogen oxides	3	No
11HA	Nitrogen oxides	2	No
11L	Nitrogen oxides	3	No
11S	Nitrogen oxides	2	No
12H	Hydrogen cyanide	3	No
12L	Hydrogen cyanide	2	No
12LL	Hydrogen cyanide	2	No
12M	Hydrogen cyanide	3	No
13	Carbon disulfide	3	No
13L	Carbon disulfide	2	No
13M	Carbon disulfide	3	No
14L	Hydrogen chloride	3	No
14M	Hydrogen chloride	3	No
14R	Hydrogen chloride	3	No
15L	Nitric acid	3	No
16	Phosgene	1.5	Yes
17	Hydrogen fluoride	3	No
17L	Hydrogen fluoride	2	No
17LL	Hydrogen fluoride	2	No

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Tube No.	Tube Name	Shelf Life (from date of manufacture)	Requires Refrigeration?
18L	Ozone	3	No
18M	Ozone	3	No
19LA	Arsine	2	No
21	Carbonyl sulfide	2	Yes
21LA	Carbonyl sulfide	2	Yes
22	Diborane	2	No
23L	Chlorine dioxide	1	Yes
23M	Chlorine dioxide	3	No
30	Hydrogen	3	No
31B	Oxygen	3	No
32	Hydrogen peroxide	3	No
35	Sulfuric acid	2	No
40	Mercury vapor	3	No
45H	Hydrogen sulfide & Sulfur dioxide	3	No
45S	Hydrogen sulfide & Sulfur dioxide	3	No
51	Fluorochlorocarbons	3	No
51H	Fluorochlorocarbons	3	No
51L	Fluorochlorocarbons	3	No
52	Nitro compounds	3	No
53	Dimethyl sulfide	2	No
60	Phenol	2	Yes
61	o-Cresol	2	Yes
70	Mercaptans	3	No
70L	Mercaptans	2	No
71	Methyl mercaptan	3	No
71H	Methyl mercaptan	3	No
72	Ethyl mercaptan	3	No
72L	Ethyl mercaptan	2	No
75	tert-Butyl mercaptan	2	No
75L	tert-Butyl mercaptan	2	Yes
76	Tetrahydrothiophene	2	No

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Tube No.	Tube Name	Shelf Life (from date of manufacture)	Requires Refrigeration?
76H	Tetrahydrothiophene	2	No
76M	Tetrahydrothiophene	2	No
77	TBM, DMS	2	Yes
80	Acid gases	2	No
81	Acetic acid	3	No
81L	Acetic acid	2	Yes
91	Formaldehyde	3	No
91L	Formaldehyde	3	Yes
91LL	Formaldehyde	1	Yes
91M	Formaldehyde	2	Yes
92	Acetaldehyde	2	Yes
92L	Acetaldehyde	2	Yes
92M	Acetaldehyde	2	Yes
93	Acrolein	2	Yes
100A	LP-Gas (LPG)	3	No
101	Gasoline	3	No
101L	Gasoline	3	No
102H	Hexane	3	No
102L	Hexane	3	No
103	Hydrocarbons (Lower Class)	2	No
104	Butane	3	No
105	Hydrocarbons (Higher Class)	3	No
106	Petroleum naphtha	3	No
111	Methanol	3	No
111L	Methanol	3	No
111LL	Methanol	2	No
112	Ethanol	3	No
112L	Ethanol	3	No
113	Isopropyl alcohol	3	No
113L	Isopropyl alcohol	3	No
113LL	Isopropyl alcohol	2	No

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Tube No.	Tube Name	Shelf Life (from date of manufacture)	Requires Refrigeration?
114	n-Butyl alcohol	3	No
115	sec-Butyl alcohol	3	No
116	Isobutyl alcohol	3	No
117	Isoamyl alcohol	3	No
118	Cyclohexanol	2	No
119	Methylcyclohexanol	2	No
120	Aromatic hydrocarbons	3	No
121	Benzene	3	No
121L	Benzene	3	No
121S	Benzene	3	No
121SL	Benzene	3	No
121SP	Benzene	2	No
122	Toluene	3	No
122L	Toluene	3	No
123	Xylene	3	No
123L	Xylene	3	No
124	Styrene	3	No
124L	Styrene	3	No
126	Chlorobenzene	3	No
126L	Chlorobenzene	2	Yes
127	o-Dichlorobenzene	3	No
128	Stoddard solvent	3	No
130L	Vinylidene chloride	2	Yes
131	Vinyl chloride	3	No
131L	Vinyl chloride	2	Yes
131LA	Vinyl chloride	2	Yes
131LB	Vinyl chloride	2	Yes
132HA	Trichloroethylene	2	Yes
132HH	Trichloroethylene	3	No
132L	Trichloroethylene	2	Yes
132LL	Trichloroethylene	2	Yes
132M	Trichloroethylene	2	Yes
133HA	Tetrachloroethylene	2	Yes

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Tube No.	Tube Name	Shelf Life (from date of manufacture)	Requires Refrigeration?
133L	Tetrachloroethylene	2	Yes
133LL	Tetrachloroethylene	2	Yes
133M	Tetrachloroethylene	2	Yes
134	Carbon tetrachloride	1	Yes
134L	Carbon tetrachloride	1	Yes
135	1,1,1-Trichloroethane	3	No
135L	1,1,1-Trichloroethane	2	No
136H	Methyl bromide	3	No
136L	Methyl bromide	2	No
136LA	Methyl bromide	2	No
136LL	Methyl bromide	2	No
137	Chloroform	3	No
137LA	Chloroform	1	Yes
137LL	Chloroform	1	Yes
138	Methylene chloride	3	No
138L	Methylene chloride	2	No
139	1,2-Dichloroethylene	2	Yes
140	Aliphatic hydrocarbons	2	No
141	Ethyl acetate	3	No
141L	Ethyl acetate	2	No
142	Butyl acetate	3	No
142L	Butyl acetate	2	No
143	Vinyl acetate	3	No
144	Isobutyl acetate	2	No
145	Propyl acetate	2	No
146	Isopropyl acetate	2	No
147	Amyl acetate	2	No
148	Isoamyl acetate	2	No
149	Methyl methacrylate	2	No
151	Acetone	3	No
151L	Acetone	2	Yes
152	Methyl ethyl ketone	3	No
152L	Methyl ethyl ketone	2	Yes

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Tube No.	Tube Name	Shelf Life (from date of manufacture)	Requires Refrigeration?
153	Methyl isobutyl ketone	3	No
153L	Methyl isobutyl ketone	1	Yes
154	Cyclohexanone	2	Yes
155	Methylcyclohexanone	2	Yes
159	Tetrahydrofuran	3	No
161	Ethyl ether	3	No
161L	Ethyl ether	2	No
163	Ethylene oxide	3	No
163L	Ethylene oxide	1	Yes
163LL	Ethylene oxide	1	Yes
165L	Ethylene glycol	3	Yes
171	Acetylene	3	No
172	Ethylene	3	No
172L	Ethylene	3	No
174	1,3-Butadiene	3	No
174L	1,3-Butadiene	3	No
174LL	1,3-Butadiene	3	Yes
180	Amines	3	No
180L	Amines	2	No
181	Aniline	3	No
182	Pyridine	3	No
183	N,N-Dimethylformamide	3	No
184	N,N-Dimethylacetamide	3	No
185	Hydrazine	3	No
191	Acrylonitrile	3	No
191L	Acrylonitrile	3	No
192	Methacrylonitrile	3	No
193	2-Pentenenitrile	3	No
230	Methyl iodide	1	Yes
230H	Methyl iodide	2	No

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Tube No.	Tube Name	Shelf Life (from date of manufacture)	Requires Refrigeration?
<b>Injection Detection Tubes</b>			
2HT	Carbon dioxide	3	No
100B	Propane	3	No
<b>Inline Sampling Tubes</b>			
72P	Ethyl mercaptan	2	No
<b>Polytec Tubes</b>			
25	Polytec II	2	No
26	Polytec III	2	No
27	Polytec IV	1.5	No
107	Polytec I	3	No
<b>Solution Tubes</b>			
211	Sulfide ion	3	No
211H	Sulfide ion	3	No
211LL	Sulfide ion	3	No
211M	Sulfide ion	3	No
218	Ozone solution	3	No
221L	Chloride ion in solution	3	No
221LL	Chloride ion in solution	3	No
222	Chlorine (free residual) in solution	2	No
271	Mercury	3	No
273	Chromium (VI) ion in solution	3	No
281	Iron ion	3	No
284	Copper ion	2	Yes
285	Zinc ion	3	No
291	Nickel	3	No

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Detector Tubes in Alphabetical Order by Application

\*Shelf Life From Date of Manufacture

Application	Tube No.	Tube Name	Shelf Life*	Requires Refrigeration?
<b>Airtec Tubes</b>				
Carbon dioxide	2A	Carbon dioxide	2	No
Carbon dioxide	2AG	Carbon dioxide	3	No
Carbon monoxide	1A	Carbon monoxide	2	No
Nitrogen oxides	11A	Nitrogen oxides	3	No
Oil mist	109A	Oil mist	2	No
Oil mist	109AD	Oil mist	2	No
Water vapor	6A	Water vapor	2	No
Water vapor	6AG	Water vapor	2	No
Water vapor	6AH	Water vapor	2	No
<b>Automatic Gas Sampler Tubes</b>				
Ammonia	3S	Ammonia	3	No
Benzene	121P	Benzene	2	No
Dichlorobenzene	127P	Dichlorobenzene	2	No
Formaldehyde	91P	Formaldehyde	1	Yes
Formaldehyde	91PL	Formaldehyde	1	Yes
Formaldehyde	91TP	Formaldehyde	1	Yes
Hydrogen sulfide	4S	Hydrogen sulfide	1.5	Yes
Styrene	124S	Styrene	3	No
Tetrachloroethylene	133P	Tetrachloroethylene	2	No
Toluene	122P	Toluene	2	No
Trichloroethylene	132P	Trichloroethylene	2	No
Vinyl chloride	131P	Vinyl chloride	2	No
<b>Dosi Tubes</b>				
Acetaldehyde	91D	Formaldehyde	1	Yes
Acetaldehyde	151D	Acetone	2	Yes
Acetaldehyde	152D	Methyl ethyl ketone	2	Yes
Acetic acid	81D	Acetic acid	3	No

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Application	Tube No.	Tube Name	Shelf Life*	Requires Refrigeration?
Acetone	151D	Acetone	2	Yes
Acetone	152D	Methyl ethyl ketone	2	Yes
Ammonia	3D	Ammonia	3	No
Ammonia	3DL	Ammonia	2	No
Benzene	122DL	Toluene	2	No
1,3-Butadiene	174D	1,3-Butadiene	2	No
Carbon dioxide	2D	Carbon dioxide	2	No
Carbon monoxide	1D	Carbon monoxide	2	No
Carbon monoxide	1DL	Carbon monoxide	2	Yes
Chlorine	8D	Chlorine	2	No
Chlorine	132D	Trichloroethylene	1	Yes
Cumene	122DL	Toluene	2	No
trans-1,2-Dichloroethylene	174D	1,3-Butadiene	2	No
trans-1,2-Dichloroethylene	132D	Trichloroethylene	1	Yes
Cis-1,2-Dichloroethylene	174D	1,3-Butadiene	2	No
Dichlorvos	132D	Trichloroethylene	1	Yes
Dimethylamine	3D	Ammonia	3	No
N,N-Dimethylethylamine	3D	Ammonia	3	No
Ethanol	112D	Ethanol	3	No
Ethyl benzene	122DL	Toluene	2	No
Ethylene	174D	1,3-Butadiene	2	No
Ethylene dichloride	174D	1,3-Butadiene	2	No
Formaldehyde	91D	Formaldehyde	1	Yes
Formic acid	81D	Acetic acid	3	No
Furfural	91D	Formaldehyde	1	Yes
Hydrazine	3D	Ammonia	3	No
Hydrogen chloride	14D	Hydrogen chloride	3	No
Hydrogen chloride	132D	Trichloroethylene	1	Yes
Hydrogen chloride	17D	Hydrogen fluoride	3	No
Hydrogen cyanide	12D	Hydrogen cyanide	3	No
Hydrogen fluoride	14D	Hydrogen chloride	3	No
Hydrogen fluoride	17D	Hydrogen fluoride	3	No
Hydrogen peroxide	32D	Hydrogen peroxide	3	No

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Application	Tube No.	Tube Name	Shelf Life*	Requires Refrigeration?
Isoprene	174D	1,3-Butadiene	2	No
Nitrogen dioxide	9D	Nitrogen dioxide	1	Yes
Nitrogen dioxide	9DL	Nitrogen dioxide	1	Yes
Methylamine	3DL	Ammonia	2	No
Methyl ethyl ketone	152D	Methyl ethyl ketone	2	Yes
Methyl ethyl ketone	91D	Formaldehyde	1	Yes
Methyl ethyl ketone	151D	Acetone	2	Yes
Methyl isobutyl ketone	151D	Acetone	2	Yes
Methyl isobutyl ketone	152D	Methyl ethyl ketone	2	Yes
Nitric acid	14D	Hydrogen chloride	3	No
Nitric acid	17D	Hydrogen fluoride	3	No
Nitrogen dioxide	9D	Nitrogen dioxide	1	Yes
Nitrogen dioxide	9DL	Nitrogen dioxide	1	Yes
Styrene	122DL	Toluene	2	No
Styrene	174D	1,3-Butadiene	2	No
Sulfur dioxide	5DH	Sulfur dioxide	3	No
Sulfur dioxide	5D	Sulfur dioxide	3	No
Tetrachloroethylene	133D	Tetrachloroethylene	1	Yes
Tetrachloroethylene	132D	Trichloroethylene	1	Yes
Toluene	122DL	Toluene	2	No
Trichloroethylene	132D	Trichloroethylene	1	Yes
Triethylamine	3D	Ammonia	3	No
Trimethylamine	3DL	Ammonia	2	No
Vinyl chloride	174D	1,3-Butadiene	2	No
Vinylidene chloride	132D	Trichloroethylene	1	Yes
Xylene	122DL	Toluene	2	No
<b>Detector Tubes</b>				
Acetaldehyde	92	Acetaldehyde	2	Yes
Acetaldehyde	92L	Acetaldehyde	2	Yes
Acetaldehyde	92M	Acetaldehyde	2	Yes
Acetic acid	81	Acetic acid	3	No
Acetic acid	81L	Acetic acid	2	Yes

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Application	Tube No.	Tube Name	Shelf Life*	Requires Refrigeration?
Acetic anhydride	81	Acetic acid	3	No
Acetic anhydride	81L	Acetic acid	2	Yes
Acetone	151	Acetone	3	No
Acetone	151L	Acetone	2	Yes
Acetone cyanohydrin	12L	Hydrogen cyanide	2	No
Acetonitrile	52	Nitro compounds	3	No
Acetylene	171	Acetylene	3	No
Acetylene	103	Hydrocarbons (Lower Class)	2	No
Acetylene	172	Ethylene	3	No
Acid gases	80	Acid gases	2	No
Acrolein	93	Acrolein	2	Yes
Acrylic acid	81	Acetic acid	3	No
Acrylic acid	81L	Acetic acid	2	Yes
Acrylonitrile	191	Acrylonitrile	3	No
Acrylonitrile	191L	Acrylonitrile	3	No
Acrylonitrile	102L	Hexane	3	No
Aliphatic hydrocarbons	140	Aliphatic hydrocarbons	2	No
Allyl amine	180	Amines	3	No
Allyl amine	180L	Amines	2	No
Allyl chloride	101L	Gasoline	3	No
Allyl chloride	131L	Vinyl chloride	2	Yes
Allyl isothiocyanate	149	Methyl methacrylate	2	No
alpha-Pinene	121	Benzene	3	No
alpha-Pinene	159	Tetrahydrofuran	3	No
Amines	180	Amines	3	No
Amines	180L	Amines	2	No
Ammonia	3H	Ammonia	3	No
Ammonia	3HM	Ammonia	3	No
Ammonia	3L	Ammonia	3	No
Ammonia	3LA	Ammonia	3	No
Ammonia	3M	Ammonia	3	No
Ammonia	180	Amines	3	No

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Application	Tube No.	Tube Name	Shelf Life*	Requires Refrigeration?
Aniline	181	Aniline	3	No
Aromatic hydrocarbons	120	Aromatic hydrocarbons	3	No
Arsine	19LA	Arsine	2	No
Benzaldehyde	91L	Formaldehyde	3	Yes
Benzene	121	Benzene	3	No
Benzene	121L	Benzene	3	No
Benzene	121S	Benzene	3	No
Benzene	121SL	Benzene	3	No
Benzene	121SP	Benzene	2	No
Benzene	171	Acetylene	3	No
Benzyl bromide	136L	Methyl bromide	2	No
Benzyl chloride	132L	Trichloroethylene	2	Yes
Boron trichloride	12L	Hydrogen cyanide	2	No
Bromine	8LA	Chlorine	3	No
Bromoform	136L	Methyl bromide	2	No
1,3-Butadiene	174	1,3-Butadiene	3	No
1,3-Butadiene	174L	1,3-Butadiene	3	No
1,3-Butadiene	174LL	1,3-Butadiene	3	Yes
Butane	104	Butane	3	No
Butane	103	Hydrocarbons	2	No
tert-Butanol	102L	Hexane	3	No
1-Butanol	114	n-Butyl alcohol	3	No
2-Butanol	115	sec-Butyl alcohol	3	No
Butyl acetate	142	Butyl acetate	3	No
Butyl acetate	142L	Butyl acetate	2	No
Butyl acrylate	142L	Butyl acetate	2	No
Butyl acrylate	146	Isopropyl acetate	2	No
di-n-Butylamine	180	Amines	3	No
di-n-Butylamine	180L	Amines	2	No
n-Butylamine	180	Amines	3	No
n-Butylamine	180L	Amines	2	No
t-Butylamine	180	Amines	3	No
n-Butyl bromide	136H	Methyl bromide	3	No

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Application	Tube No.	Tube Name	Shelf Life*	Requires Refrigeration?
n-Butyl bromide	136LA	Methyl bromide	2	No
Butyl mercaptan	70L	Mercaptans	2	No
tert-Butyl mercaptan	75	tert-Butyl mercaptan	2	No
tert-Butyl mercaptan	75L	tert-Butyl mercaptan	2	Yes
tert-Butyl mercaptan	77	TBM & DMS	2	Yes
tert-Butyl mercaptan	70L	Mercaptans	2	No
Butyric acid	81L	Acetic acid	2	Yes
Butyronitrile	191L	Acrylonitrile	3	No
Carbon dioxide	2HH	Carbon dioxide	3	No
Carbon dioxide	2H	Carbon dioxide	3	No
Carbon dioxide	2L	Carbon dioxide	3	No
Carbon dioxide	2LC	Carbon dioxide	2	No
Carbon dioxide	2LL	Carbon dioxide	3	No
Carbon disulfide	13	Carbon disulfide	3	No
Carbon disulfide	13L	Carbon disulfide	2	No
Carbon disulfide	13M	Carbon disulfide	3	No
Carbon monoxide	1H	Carbon monoxide	3	No
Carbon monoxide	1HH	Carbon monoxide	3	No
Carbon monoxide	1L	Carbon monoxide	3	No
Carbon monoxide	1LA	Carbon monoxide	3	No
Carbon monoxide	1LC	Carbon monoxide	2	No
Carbon monoxide	1LK	Carbon monoxide	3	No
Carbon monoxide	1LKC	Carbon monoxide	3	No
Carbon monoxide	1LL	Carbon monoxide	3	No
Carbon monoxide	1LM	Carbon monoxide	3	No
Carbon monoxide	1M	Carbon monoxide	3	No
Carbon tetrachloride	134	Carbon tetrachloride	1	Yes
Carbon tetrachloride	134L	Carbon tetrachloride	1	Yes
Carbonyl sulfide	21	Carbonyl sulfide	2	Yes
Carbonyl sulfide	21LA	Carbonyl sulfide	2	Yes
Chlorine	8HH	Chlorine	3	No
Chlorine	8H	Chlorine	3	No
Chlorine	8LL	Chlorine	1	Yes

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Application	Tube No.	Tube Name	Shelf Life*	Requires Refrigeration?
Chlorine	14L	Hydrogen chloride	3	No
Chlorine	80	Acid gases	2	No
Chlorine dioxide	23L	Chlorine dioxide	1	Yes
Chlorine dioxide	23M	Chlorine dioxide	3	No
Chlorine dioxide	8H	Chlorine	3	No
Chlorine dioxide	8LL	Chlorine	1	Yes
Chlorine dioxide	8LA	Chlorine	3	No
Chlorobenzene	126	Chlorobenzene	3	No
Chlorobenzene	126L	Chlorobenzene	2	Yes
Chlorobromomethane	135	1,1,1-Trichloroethane	3	No
Chlorobromomethane	136L	Methyl bromide	2	No
Chlorocyclohexane	102L	Hexane	3	No
Chlorodifluoromethane (R22)	51H	Fluorochlorocarbons (Freon)	3	No
Chlorodifluoromethane (R22)	51	Fluorochlorocarbons (Freon)	3	No
Chlorodifluoromethane (R22)	51L	Fluorochlorocarbons (Freon)	3	No
Chlorofluorocarbons (CFC)	51H	Fluorochlorocarbons (Freon)	3	No
Chlorofluorocarbons (CFC)	51	Fluorochlorocarbons (Freon)	3	No
Chlorofluorocarbons (CFC)	51L	Fluorochlorocarbons (Freon)	3	No
Chloroform (Trichloromethane)	137	Chloroform	3	No
Chloroform (Trichloromethane)	137LA	Chloroform	1	Yes
Chloroform (Trichloromethane)	137LL	Chloroform	1	No
Chlorocyclohexane	102L	Hexane	3	No
Chloropicrin	134	Carbon tetrachloride	1	Yes

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Application	Tube No.	Tube Name	Shelf Life*	Requires Refrigeration?
m-Cresol	61	o-Cresol	2	Yes
o-Cresol	61	o-Cresol	2	Yes
p-Cresol	61	p-Cresol	2	Yes
Cumene	122	Toluene	3	No
Cumene	122L	Toluene	3	No
Cyclohexane	102H	Hexane	3	No
Cyclohexane	102L	Hexane	3	No
Cyclohexanol	118	Cyclohexanol	2	No
Cyclohexanone	154	Cyclohexanone	2	Yes
Cyclohexanone	91L	Formaldehyde	3	Yes
Cyclohexene	151	Acetone	3	No
Cyclohexylamine	180	Amines	3	No
Cyclohexylamine	180L	Amines	2	No
Cyclopentane	101L	Gasoline	3	No
Cymene	141L	Ethyl acetate	2	No
Decahydronaphthalene	121	Benzene	3	No
N-Decane	105	Hydrocarbons	3	No
Diacetone alcohol	154	Cyclohexanone	2	Yes
Diacetyl	92	Acetaldehyde	2	Yes
Diborane	22	Diborane	2	No
1,1-Dibromoethane	136L	Methyl bromide	2	No
Dibromomethane	136L	Methyl bromide	2	No
m-Dichlorobenzene	127	o-Dichlorobenzene	3	No
o-Dichlorobenzene	127	o-Dichlorobenzene	3	No
p-Dichlorobenzene	127	o-Dichlorobenzene	3	No
Dichlorodifluoromethane (R12)	51H	Fluorochlorocarbons (Freon)	3	No
Dichlorodifluoromethane (R12)	51	Fluorochlorocarbons (Freon)	3	No
Dichlorodifluoromethane (R12)	51L	Fluorochlorocarbons (Freon)	3	No
1,1-Dichloroethane	135	1,1,1-Trichloroethane	3	No
1,2-Dichloroethylene	139	1,2-Dichloroethylene	2	Yes

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Application	Tube No.	Tube Name	Shelf Life*	Requires Refrigeration?
1,2-Dichloroethylene	132LL	Trichloroethylene	2	Yes
1,1-Dichloro-1-fluoroethane (R14b)	51	Fluorochlorocarbons (Freon)	3	No
1,1-Dichloro-1-fluoroethane (R14b)	51L	Fluorochlorocarbons (Freon)	3	No
Dichloropentafluoropropane (R225)	51	Fluorochlorocarbons (Freon)	3	No
Dichloropentafluoropropane (R225)	51L	Fluorochlorocarbons (Freon)	3	No
3,3-Dichloro-1,1,2,2,2-pentafluoropropane (R225ca)	51	Fluorochlorocarbons (Freon)	3	No
3,3-Dichloro-1,1,2,2,2-pentafluoropropane (R225ca)	51L	Fluorochlorocarbons (Freon)	3	No
1,3-Dichloropropane	139	1,2-Dichloroethylene	2	Yes
1,3-Dichloropropane	132M	Trichloroethylene	2	Yes
1,3-Dichloropropene	131LA	Vinyl chloride	2	Yes
1,3-Dichloropropene	132HA	Trichloroethylene	2	Yes
1,3-Dichloropropene	132M	Trichloroethylene	2	Yes
1,2-Dichloro-1,1,2,2-tetrafluoroethane	51H	Fluorochlorocarbons (Freon)	3	No
1,2-Dichloro-1,1,2,2-tetrafluoroethane	51	Fluorochlorocarbons (Freon)	3	No
1,2-Dichloro-1,1,2,2-tetrafluoroethane	51L	Fluorochlorocarbons (Freon)	3	No
2,2-Dichloro-1,1,1-trifluoroethane (Ra123)	51	Fluorochlorocarbons (Freon)	3	No
2,2-Dichloro-1,1,1-trifluoroethane (Ra123)	51L	Fluorochlorocarbons (Freon)	3	No
Dichlorvos	132LL	Trichloroethylene	2	Yes
Dicyclopentadiene (DCPD)	76	Tetrahydrothiophene	2	No
Dicyclopentadiene (DCPD)	112L	Ethanol	3	No
Diethylamine	180	Amines	3	No
Diethylamine	180L	Amines	2	No

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Application	Tube No.	Tube Name	Shelf Life*	Requires Refrigeration?
Diethyl benzene	122L	Toluene	3	No
Diethylenetriamine	180L	Amines	2	No
Diethylethanolamine	180	Amines	3	No
Diisobutylene	121	Benzene	3	No
Diisobutyl ketone	91L	Formaldehyde	3	Yes
Diisobutyl ketone	102L	Hexane	3	No
Diisopropylamine	180	Amines	3	No
Diisopropylamine	180L	Amines	2	No
Diisopropyl benzene	141L	Ethyl acetate	2	No
Diisopropyl toluene	141L	Ethyl acetate	2	No
N,N-Dimethylacetamide	184	N,N-Dimethylacetamide	3	No
Dimethylamine	3H	Ammonia	3	No
Dimethylamine	180	Amines	3	No
Dimethylamine	180L	Amines	2	No
2-Dimethylaminoethanol	180L	Amines	2	No
Dimethylaminopropylamine	180	Amines	3	No
Dimethylaminopropylamine	180L	Amines	2	No
N,N-Dimethylaniline	181	Aniline	3	No
Dimethyl disulfide	53	Dimethyl sulfide	2	No
Dimethylethanolamine	180	Amines	3	No
N,N-Dimethylethylamine	180	Amines	3	No
N,N-Dimethylethylamine	180L	Amines	2	No
N,N-Dimethylformamide	183	N,N-Dimethylformamide	3	No
Dimethylhydrazine	185	Hydrazine	3	No
Dimethyl sulfide	53	Dimethyl sulfide	2	No
Dimethyl sulfide	77	TBM & DMS	2	Yes
1,4-Dioxane	159	Tetrahydrofuran	3	No
1,4-Dioxane	163	Ethylene oxide	3	No
Dipropylamine	180	Amines	3	No
Dipropylamine	180L	Amines	2	No
Divinyl benzene	124L	Styrene	3	No

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Application	Tube No.	Tube Name	Shelf Life*	Requires Refrigeration?
Enflurane (2-Chloro-1,1,2-trifluoroethyl difluoromethyl ether)	51	Chlorofluorocarbons (Freon)	3	No
Enflurane (2-Chloro-1,1,2-trifluoroethyl difluoromethyl ether)	51L	Chlorofluorocarbons (Freon)	3	No
Epichlorohydrin	163L	Ethylene oxide	1	Yes
Ethanol	112	Ethanol	3	No
Ethanol	112L	Ethanol	3	No
Ethanolamine	180	Amines	3	No
Ethanolamine	180L	Amines	2	No
Ethyl acetate	141	Ethyl acetate	3	No
Ethyl acetate	141L	Ethyl acetate	2	No
Ethyl acrylate	141L	Ethyl acetate	2	No
Ethyl acrylate	151	Acetone	3	No
Ethylamine	180	Amines	3	No
Ethylamine	180L	Amines	2	No
Ethyl benzene	122	Toluene	3	No
Ethyl benzene	122L	Toluene	3	No
p-Ethyl benzylchloride	131LA	Vinyl chloride	2	Yes
Ethyl bromide	136L	Methyl bromide	2	No
Ethyl bromide	138	Methylene chloride	3	No
Ethyl chloroformate	131LA	Vinyl chloride	2	Yes
Ethylene	103	Hydrocarbons (Lower Class)	2	No
Ethylene	171	Acetylene	3	No
Ethylene	172	Ethylene	3	No
Ethylene	172L	Ethylene	3	No
Ethylene chlorohydrin	111L	Methanol	3	No
Ethylenediamine	180	Amines	3	No
Ethylenediamine	180L	Amines	2	No
Ethylene dibromide	136H	Methyl bromide	3	No
Ethylene dibromide	136L	Methyl bromide	2	No

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Application	Tube No.	Tube Name	Shelf Life*	Requires Refrigeration?
Ethylene dichloride	135L	1,1,1-Trichloroethane	2	No
Ethylene glycol	165L	Ethylene glycol	3	Yes
Ethylene glycol butyl ether	113L	Isopropyl alcohol	3	No
Ethylene glycol ethyl ether	113L	Isopropyl alcohol	3	No
Ethylene glycol ethyl ether acetate	113L	Isopropyl alcohol	3	No
Ethylene glycol methyl ether	113L	Isopropyl alcohol	3	No
Ethylene oxide	163	Ethylene oxide	3	No
Ethylene oxide	163L	Ethylene oxide	1	Yes
Ethylene oxide	163LL	Ethylene oxide	1	Yes
Ethyl ether	161	Ethyl ether	3	No
Ethyl ether	161L	Ethyl ether	2	No
2-Ethylhexyl acrylate	142L	Butyl acetate	2	No
2-Ethylhexyl alcohol	117	Isoamyl alcohol	3	No
Ethyl mercaptan	72	Ethyl mercaptan	3	No
Ethyl mercaptan	72L	Ethyl mercaptan	2	No
Ethyl mercaptan	70	Mercaptans	3	No
Ethyl mercaptan	70L	Mercaptans	2	No
Ethyl mercaptan	71H	Methyl mercaptan	3	No
N-Ethyl morpholine	180	Amines	3	No
N-Ethyl morpholine	180L	Amines	2	No
Fluorine	17	Hydrogen fluoride	3	No
Fluorochlorocarbons	51H	Fluorochlorocarbons	3	No
Fluorochlorocarbons	51	Fluorochlorocarbons	3	No
Fluorochlorocarbons	51L	Fluorochlorocarbons	3	No
Formaldehyde	91	Formaldehyde	3	No
Formaldehyde	91L	Formaldehyde	3	Yes
Formaldehyde	91LL	Formaldehyde	1	Yes
Formaldehyde	91M	Formaldehyde	2	Yes
Formaldehyde	93	Acrolein	2	Yes
Formic acid	81	Acetic acid	3	No
Formic acid	81L	Acetic acid	2	Yes
Furfural	154	Cyclohexanone	2	Yes

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Application	Tube No.	Tube Name	Shelf Life*	Requires Refrigeration?
Gasoline	101L	Gasoline	3	No
Gasoline	1M	Carbon monoxide	3	No
Halothane (2-Bromo-2-chloro-1,1,1-trifluoroethane)	51H	Fluorochlorocarbons (Freon)	3	No
Halothane (2-Bromo-2-chloro-1,1,1-trifluoroethane)	51	Fluorochlorocarbons (Freon)	3	No
Halothane (2-Bromo-2-chloro-1,1,1-trifluoroethane)	51L	Fluorochlorocarbons (Freon)	3	No
Heptane	101	Gasoline	3	No
Heptane	101L	Gasoline	3	No
Heptane	103	Hydrocarbons (LC)	2	No
Heptane	105	Hydrocarbons (HC)	3	No
Hexamethylenediamine	180L	Amines	2	No
n-Hexane	102H	Hexane	3	No
n-Hexane	102L	Hexane	3	No
1-Hexene	141L	Ethyl acetate	2	No
2-Hexyl alcohol	141L	Ethyl acetate	2	No
Hexylamine	180	Amines	3	No
Hexylamine	180L	Amines	2	No
Hydrazine	185	Hydrazine	3	No
Hydrocarbons (Lower Class)	103	Hydrocarbons (Lower Class)	2	No
Hydrocarbons (Higher Class)	105	Hydrocarbons (Higher Class)	3	No
Hydrogen	30	Hydrogen	3	No
Hydrogen bromide	15L	Nitric acid	3	No
Hydrogen chloride	14L	Hydrogen chloride	3	No
Hydrogen chloride	14M	Hydrogen chloride	3	No
Hydrogen chloride	14R	Hydrogen chloride	3	No
Hydrogen chloride	5M	Sulfur dioxide	3	No
Hydrogen chloride	8HH	Chlorine	3	No
Hydrogen chloride	80	Acid gases	2	No
Hydrogen cyanide	12H	Hydrogen cyanide	3	No
Hydrogen cyanide	12L	Hydrogen cyanide	2	No

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Application	Tube No.	Tube Name	Shelf Life*	Requires Refrigeration?
Hydrogen cyanide	12M	Hydrogen cyanide	3	No
Hydrogen fluoride	17	Hydrogen fluoride	3	No
Hydrogen fluoride	17L	Hydrogen fluoride	2	No
Hydrogen fluoride	17LL	Hydrogen fluoride	2	No
Hydrogen peroxide	32	Hydrogen peroxide	3	No
Hydrogen sulfide	4HH	Hydrogen sulfide	3	No
Hydrogen sulfide	4H	Hydrogen sulfide	3	No
Hydrogen sulfide	4HM	Hydrogen sulfide	3	No
Hydrogen sulfide	4HP	Hydrogen sulfide	3	No
Hydrogen sulfide	4HT	Hydrogen sulfide	3	No
Hydrogen sulfide	4L	Hydrogen sulfide	3	No
Hydrogen sulfide	4LB	Hydrogen sulfide	2	No
Hydrogen sulfide	4LK	Hydrogen sulfide	3	No
Hydrogen sulfide	4LL	Hydrogen sulfide	3	No
Hydrogen sulfide	4LT	Hydrogen sulfide	2	Yes
Hydrogen sulfide	4M	Hydrogen sulfide	3	No
Hydrogen sulfide & Sulfur dioxide	45H	Hydrogen sulfide & Sulfur dioxide	3	No
Hydrogen sulfide & Sulfur dioxide (separate quantification)	45S	Hydrogen sulfide & Sulfur dioxide (separate quantification)	3	No
Iodine	9L	Nitrogen dioxide	3	No
Iodine	80	Acid gases	2	No
Isoamyl acetate	148	Isoamyl acetate	2	No
Isoamyl alcohol	117	Isoamyl alcohol	3	No
Isobutane	103	Hydrocarbons	2	No
Isobutane	104	Butane	3	No
Isobutene	101L	Gasoline	3	No
Isobutene	161L	Ethyl ether	2	No
Isobutyl acetate	144	Isobutyl acetate	2	No
Isobutyl acrylate	142L	Butyl acetate	2	No
Isobutyl alcohol	116	Isobutyl alcohol	3	No

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Application	Tube No.	Tube Name	Shelf Life*	Requires Refrigeration?
Isoflurane (1-Chloro-2,2,2-trifluoroethyl difluoromethyl ether)	51L	Fluorochlorocarbons (Freon)	3	No
Isooctane	101	Gasoline	3	No
Isopentane	103	Hydrocarbons	2	No
Isophorone	154	Cyclohexanone	2	Yes
Isoprene	141L	Ethyl acetate	2	No
Isopropyl acetate	146	Isopropyl acetate	2	No
Isopropyl alcohol	113	Isopropyl alcohol	3	No
Isopropyl alcohol	113L	Isopropyl alcohol	3	No
Isopropyl alcohol	113LL	Isopropyl alcohol	2	No
Isopropyl alcohol	180	Amines	3	No
Isopropyl alcohol	180L	Amines	2	No
Isopropyl ether	141L	Ethyl acetate	2	No
Isopropyl ether	161	Ethyl ether	3	No
Isopropyl mercaptan	70	Mercaptans	3	No
Isovaleric acid	81	Acetic acid	3	No
Isovaleric acid	81L	Acetic acid	2	Yes
Kerosene	121L	Benzene	3	No
Limonene	122L	Toluene	3	No
LP-Gas (LPG)	100A	Liquified Petroleum Gas (LPG)	3	No
Maleic anhydride	81	Acetic acid	3	No
m-Cresol	61	o-Cresol	2	Yes
Mercaptans	70	Mercaptans	3	No
Mercaptans	70L	Mercaptans	2	No
2-Mercaptoethanol	75L	tert-Butyl mercaptan	2	Yes
Mercury vapor	40	Mercury vapor	3	No
Mesityl oxide	141L	Ethyl acetate	2	No
Methacrylic acid	81	Acetic acid	3	No
Methacrylic acid	81L	Acetic acid	2	Yes
Methacrylonitrile	192	Methacrylonitrile	3	No

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Application	Tube No.	Tube Name	Shelf Life*	Requires Refrigeration?
Methanol	111	Methanol	3	No
Methanol	111L	Methanol	3	No
Methanol	111LL	Methanol	2	No
2-Methoxyethyl acetate	113L	Isopropyl alcohol	3	No
1-Methoxy-2-propanol	113L	Isopropyl alcohol	3	No
Methyl acrylate	141L	Ethyl acetate	2	No
2-Methyl allyl chloride	131LA	Vinyl chloride	2	Yes
Methylamine	180	Amines	3	No
Methylamine	180L	Amines	2	No
N-Methyl aniline	181	Aniline	3	No
Methyl bromide	136H	Methyl bromide	3	No
Methyl bromide	136L	Methyl bromide	2	No
Methyl bromide	136LA	Methyl bromide	2	No
Methyl bromide	136LL	Methyl bromide	2	No
2-Methyl-3-butenenitrile	191L	Acrylonitrile	3	No
Methyl chloride	51	Fluorochlorocarbons (Freon)	3	No
Methyl chloride	51L	Fluorochlorocarbons (Freon)	3	No
Methyl chloroform	135	1,1,1-Trichloroethane	3	No
Methyl chloroform	135L	1,1,1-Trichloroethane	2	No
Methyl chloroform	171	Acetylene	3	No
Methyl chloroformate	131LA	Vinyl chloride	2	Yes
Methylcyclohexane	102H	n-Hexane	3	No
Methylcyclohexanol	119	Methylcyclohexanol	2	No
Methylcyclohexanone	155	Methylcyclohexanone	2	Yes
Methylene chloride	138	Methylene chloride	3	No
Methylene chloride	138L	Methylene chloride	2	No
Methylene chloride	51L	Fluorochlorocarbons (Freon)	3	No
Methylene iodide	121L	Benzene	3	No

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Application	Tube No.	Tube Name	Shelf Life*	Requires Refrigeration?
Methyl ethyl ketone	152	Methyl ethyl ketone	3	No
Methyl ethyl ketone	152L	Methyl ethyl ketone	2	Yes
Methyl ethyl ketone	151L	Acetone	2	Yes
Methyl hydrazine	185	Hydrazine	3	No
Methyl iodide	230H	Methyl iodide	2	No
Methyl iodide	230	Methyl iodide	1	Yes
Methyl iodide	121L	Benzene	3	No
Methyl isobutyl ketone	153	Methyl isobutyl ketone	3	No
Methyl mercaptan	71H	Methyl mercaptan	3	No
Methyl mercaptan	71	Methyl mercaptan	3	No
Methyl mercaptan	70	Mercaptans	3	No
Methyl mercaptan	70L	Mercaptans	2	No
Methyl isobutyl ketone	153	Methyl isobutyl ketone	3	No
Methyl isobutyl ketone	153L	Methyl isobutyl ketone	1	Yes
Methylcyclohexane	102H	Hexane	3	No
Methylcyclohexanone	155	Methylcyclohexanone	2	Yes
Methylene iodide	121L	Benzene	3	No
Methyl methacrylate	149	Methyl methacrylate	2	No
n-Methyl morpholine	180	Amines	3	No
n-Methyl morpholine	180L	Amines	2	No
n-Methyl pyridine	182	Pyridine	3	No
n-Methyl pyrrolidone	180	Amines	3	No
Methyl Tertiary-Butyl Ether (MTBE)	121	Benzene	3	No
Methyl Tertiary-Butyl Ether (MTBE)	141L	Ethyl acetate	2	No
Methyl Tertiary-Butyl Ether (MTBE)	142L	Butyl acetate	2	No
Methyl Tertiary-Butyl Ether (MTBE)	161	Ethyl ether	3	No
Monoethanolamine	180	Amines	3	No

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Application	Tube No.	Tube Name	Shelf Life*	Requires Refrigeration?
Morpholine	180L	Amines	2	No
Naphthalene	60	Phenol	2	Yes
Nitric acid	15L	Nitric acid	3	No
Nitric acid	10	NO + NO <sub>2</sub> (separate quantification)	3	No
Nitric acid	80	Acid gases	2	No
Nitro compounds (Nitroethane)	52	Nitro compounds	3	No
Nitrogen dioxide	9L	Nitrogen dioxide	3	No
Nitrogen dioxide	10	NO + NO <sub>2</sub> (separate quantification)	3	No
Nitrogen dioxide	52	Nitro compounds	3	No
Nitrogen dioxide	80	Acid gases	2	No
Nitrogen oxides	10	NO + NO <sub>2</sub> (separate quantification)	3	No
Nitrogen oxides	11HA	Nitrogen oxides	2	No
Nitrogen oxides	11L	Nitrogen oxides	3	No
Nitrogen oxides	11S	Nitrogen oxides	2	No
Nitromethane	52	Nitro compounds	3	No
1-Nitropropane	52	Nitro compounds	3	No
2-Nitropropane	52	Nitro compounds	3	No
Nonane	105	Hydrocarbons (Higher Class)	3	No
o-Cresol	61	o-Cresol	2	Yes
Octane	101	Gasoline	3	No
Octane	105	Hydrocarbons (Higher Class)	3	No
Olefins	100A	Liquefied Petroleum Gas (LPG)	3	No
Oxygen	31B	Oxygen	3	No
Ozone	18L	Ozone	3	No
Ozone	18M	Ozone	3	No
p-Cresol	61	o-Cresol	2	Yes

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Application	Tube No.	Tube Name	Shelf Life*	Requires Refrigeration?
1,3-Pentadiene	174	1,3-Butadiene	3	No
1,3-Pentadiene	174L	1,3-Butadiene	3	No
Pentamethylene diamine	180L	Amines	2	No
n-Pentane	103	Hydrocarbons (Lower Class)	2	No
n-Pentane	104	Butane	3	No
2-Pentenenitrile	191L	Acrylonitrile	3	No
2-Pentenenitrile	193	2-Pentenenitrile	3	No
3-Pentenenitrile	191L	Acrylonitrile	3	No
Petroleum benzine	106	Petroleum naphtha	3	No
Petroleum ether	106	Petroleum naphtha	3	No
Petroleum naphtha	106	Petroleum naphtha	3	No
Phenol	60	Phenol	2	Yes
Phosgene	16	Phosgene	1.5	Yes
Phosphine	7	Phosphine	3	No
Phosphine	7H	Phosphine	2	No
Phosphine	7J	Phosphine	3	No
Phosphine	7L	Phosphine	3	No
Phosphine	7LA	Phosphine	2	No
alpha-Pinene	121	Benzene	3	No
alpha-Pinene	159	Tetrahydrofuran	3	No
Propane	103	Hydrocarbons (Lower Class)	2	No
Propionaldehyde	91L	Formaldehyde	3	Yes
Propionaldehyde	151L	Acetone	2	Yes
Propionic acid	81	Acetic acid	3	No
Propionic acid	81L	Acetic acid	2	Yes
Propionitrile	191	Acrylonitrile	3	No
Propyl acetate	145	Propyl acetate	2	No
n-Propyl alcohol	113	Isopropyl alcohol	3	No
n-Propyl alcohol	113L	Isopropyl alcohol	3	No
Propylamine	180	Amines	3	No
Propylamine	180L	Amines	2	No
n-Propyl bromide	136L	Methyl bromide	2	No

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Application	Tube No.	Tube Name	Shelf Life*	Requires Refrigeration?
Propylene	100A	Liquified Petroleum Gas (LPG)	3	No
Propylene dichloride	131LA	Vinyl chloride	2	Yes
Propyleneimine	180	Amines	3	No
Propyleneimine	180L	Amines	2	No
Propylene oxide	163	Ethylene oxide	3	No
Propylene oxide	163L	Ethylene oxide	1	Yes
Propyl mercaptan	70	Mercaptans	3	No
Propyl mercaptan	70L	Mercaptans	2	No
Pyridine	182	Pyridine	3	No
Stoddard solvent	128	Stoddard solvent	3	No
Styrene	124	Styrene	3	No
Styrene	124L	Styrene	3	No
Styrene	153	Methyl isobutyl ketone	3	No
Sulfur dioxide	5H	Sulfur dioxide	3	No
Sulfur dioxide	5L	Sulfur dioxide	3	No
Sulfur dioxide	5LA	Sulfur dioxide	3	No
Sulfur dioxide	5LB	Sulfur dioxide	3	No
Sulfur dioxide	5LC	Sulfur dioxide	3	No
Sulfur dioxide	5M	Sulfur dioxide	3	No
Sulfur dioxide	80	Acid gases	2	No
Sulfuric acid	35	Sulfuric acid	2	No
Sulfur Tetrafluoride	5LB	Sulfur dioxide	3	No
tert-Butyl mercaptan	75	tert-Butyl mercaptan	2	No
tert-Butyl mercaptan	75L	tert-Butyl mercaptan	2	Yes
tert-Butyl mercaptan	77	TBM & DMS	2	Yes
1,1,2,2-Tetrabromoethane	135L	1,1,1-Trichloroethane	2	No
1,1,2,2-Tetrachloro-1,2-difluoroethane (R112)	51H	Fluorochlorocarbons (Freon)	3	No
1,1,2,2-Tetrachloro-1,2-difluoroethane (R112)	51	Fluorochlorocarbons (Freon)	3	No

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Application	Tube No.	Tube Name	Shelf Life*	Requires Refrigeration?
1,1,2,2-Tetrachloroethane	131L	Vinyl chloride	2	Yes
Tetrachloroethylene	133HA	Tetrachloroethylene	2	Yes
Tetrachloroethylene	133L	Tetrachloroethylene	2	Yes
Tetrachloroethylene	133LL	Tetrachloroethylene	2	Yes
Tetrachloroethylene	133M	Tetrachloroethylene	2	Yes
Tetrachloroethylene	132HH	Trichloroethylene	3	No
Tetrahydrofuran	159	Tetrahydrofuran	3	No
Tetrahydrofuran	161	Ethyl ether	3	No
Tetrahydrothiophene	76H	Tetrahydrothiophene	2	No
Tetrahydrothiophene	76	Tetrahydrothiophene	2	No
Tetrahydrothiophene	76M	Tetrahydrothiophene	2	No
Tetramethylenediamine	180	Amines	3	No
Tetramethylenediamine	180L	Amines	2	No
Thionyl chloride	5LA	Sulfur dioxide	3	No
Toluene	122	Toluene	3	No
Toluene	122L	Toluene	3	No
Toluene	161	Ethyl ether	3	No
o-Toluidine	181	Aniline	3	No
Trichloroacetic acid	15L	Nitric acid	3	No
1,2,4-Trichlorobenzene	131LA	Vinyl chloride	2	Yes
1,1,1-Trichloroethane	135	1,1,1-Trichloroethane	3	No
1,1,1-Trichloroethane	135L	1,1,1-Trichloroethane	2	No
1,1,2-Trichloroethane	135	1,1,1-Trichloroethane	3	No
Trichloroethylene	132HH	Trichloroethylene	3	No
Trichloroethylene	132HA	Trichloroethylene	2	Yes
Trichloroethylene	132L	Trichloroethylene	2	Yes
Trichloroethylene	132LL	Trichloroethylene	2	Yes
Trichloroethylene	132M	Trichloroethylene	2	Yes
Trichlorofluoromethane (R11)	51H	Fluorochlorocarbons	3	No
Trichlorofluoromethane (R11)	51	Fluorochlorocarbons (Freon)	3	No

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Application	Tube No.	Tube Name	Shelf Life*	Requires Refrigeration?
1,2,3-Trichloropropane	135L	1,1,1-Trichloroethane	2	No
1,1,2-Trichloro-1,2,2-trifluoroethane (R113)	51H	Fluorochlorocarbons (Freon)	3	No
1,1,2-Trichloro-1,2,2-trifluoroethane (R113)	51	Fluorochlorocarbons (Freon)	3	No
1,1,2-Trichloro-1,2,2-trifluoroethane (R113)	51L	Fluorochlorocarbons (Freon)	3	No
1,1,1-Trichloro-2,2,2-trifluoroethane (R113a)	51H	Fluorochlorocarbons (Freon)	3	No
1,1,1-Trichloro-2,2,2-trifluoroethane (R113a)	51	Fluorochlorocarbons (Freon)	3	No
1,1,1-Trichloro-2,2,2-trifluoroethane (R113a)	51L	Fluorochlorocarbons (Freon)	3	No
Triethylamine	180	Amines	3	No
Triethylamine	180L	Amines	2	No
Trimethylamine	3M	Ammonia	3	No
Trimethylamine	180	Amines	3	No
Trimethylamine	180L	Amines	2	No
Trimethyl benzene	123	Xylene	3	No
Valeric acid	81L	Acetic acid	2	Yes
Vinyl acetate	143	Vinyl acetate	3	No
Vinyl acetate	141	Ethyl acetate	3	No
Vinyl chloride	131	Vinyl chloride	3	No
Vinyl chloride	131L	Vinyl chloride	2	Yes
Vinyl chloride	131LA	Vinyl chloride	2	Yes
Vinyl chloride	131LB	Vinyl chloride	2	Yes
4-Vinyl cyclohexene	174LL	1,3-Butadiene	3	Yes
Vinyl toluene	124L	Styrene	3	No
Vinyl trimethoxysilane	113L	Isopropyl alcohol	3	No
Vinylidene chloride	130L	Vinylidene chloride	2	Yes
Water vapor	6	Water vapor	3	No
Water vapor	6L	Water vapor	3	No
Water vapor	6LLP	Water vapor	3	No

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Application	Tube No.	Tube Name	Shelf Life*	Requires Refrigeration?
Water Vapor	6LP	Water vapor	3	No
Xylene	123	Xylene	3	No
Xylene	123L	Xylene	3	No
Xylene	100A	Liquified Petroleum Gas (LPG)	3	No
Xylene	122L	Toluene	3	No
<b>Injection Detection Tubes</b>				
Carbon dioxide	2HT	Carbon dioxide	3	No
Propane	100B	Propane	3	No
<b>Inline Sampling Tubes</b>				
Ethyl Mercaptan	72P	Ethyl Mercaptan	3	No
<b>Polytec Tubes</b>				
Acetone	107	Polytec I	3	No
Acetylene	27	Polytec IV	1.5	No
Acetylene	107	Polytec I	3	No
Amines	27	Polytec IV	1.5	No
Ammonia	25	Polytec II	2	No
Ammonia	26	Polytec III	2	No
Ammonia	27	Polytec IV	1.5	No
Benzene	107	Polytec I	3	No
Butane	26	Polytec III	2	No
Carbon disulfide	107	Polytec I	3	No
Carbon dioxide	27	Polytec IV	1.5	No
Carbon monoxide	25	Polytec II	2	No
Carbon monoxide	27	Polytec IV	1.5	No
Carbon monoxide	107	Polytec I	3	No
Chlorine	25	Polytec II	2	No
Chlorine	26	Polytec III	2	No
Chlorine	27	Polytec IV	1.5	No
Diethylamine	27	Polytec IV	1.5	No
Ethylene	27	Polytec IV	1.5	No
Ethylene	107	Polytec I	3	No

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Application	Tube No.	Tube Name	Shelf Life*	Requires Refrigeration?
Gasoline	107	Polytec I	3	No
Hydrogen	25	Polytec II	2	No
Hydrogen	27	Polytec IV	1.5	No
Hydrogen chloride	25	Polytec II	2	No
Hydrogen chloride	26	Polytec III	2	No
Hydrogen chloride	27	Polytec IV	1.5	No
Hydrogen sulfide	25	Polytec II	2	No
Hydrogen sulfide	26	Polytec III	2	No
Hydrogen sulfide	27	Polytec IV	1.5	No
Hydrogen sulfide	107	Polytec I	3	No
LPG	26	Polytec III	2	No
Methyl mercaptan	27	Polytec IV	1.5	No
Nitrogen dioxide	25	Polytec II	2	No
Nitrogen dioxide	26	Polytec III	2	No
Nitrogen dioxide	27	Polytec IV	1.5	No
Olefin HCs	25	Polytec II	2	No
Phosphine	27	Polytec IV	1.5	No
Propane	107	Polytec I	3	No
Propylene	27	Polytec IV	1.5	No
Propylene	107	Polytec I	3	No
Sulfur dioxide	25	Polytec II	2	No
Sulfur dioxide	26	Polytec III	2	No
Styrene	107	Polytec I	3	No
Sulfur dioxide	27	Polytec IV	1.5	No
Toluene	107	Polytec I	3	No
Trichloroethylene	107	Polytec I	3	No
Xylene	107	Polytec I	3	No
<b>Solution Tubes</b>				
Chloride ion in solution	221L	Chloride ion in solution	3	No
Chloride ion in solution	221LL	Chloride ion in solution	3	No

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Application	Tube No.	Tube Name	Shelf Life*	Requires Refrigeration?
Chromium ion in solution	273	Chromium ion in solution	3	No
Copper ion	284	Copper ion	2	Yes
Iron ion	281	Iron ion	3	No
Mercury	271	Mercury	3	No
Nickel	291	Nickel	3	No
Ozone solution	218	Ozone solution	3	No
Sulfide ion	211H	Sulfide ion	3	No
Sulfide ion	211	Sulfide ion	3	No
Sulfide ion	211LL	Sulfide ion	3	No
Sulfide ion	211M	Sulfide ion	3	No
Zinc ion	285	Zinc ion	3	No