

# Assay Technology Inc - Sampling Guide

# - Indicates the badge / chemical combination we recommend.

The 521 and 580 badges have been replaced by the TraceAir II badges 525 and 581. Until the last lots of 521 and 525 have expired, they will be listed here.

All 521 sampling rates are with both covers removed. Many of the NIOSH/OSHA methods have been modified. For a list of significant modifications, go to [www.assaytech.com](http://www.assaytech.com). Information in this table can change without notice.

OSP = Organic Solvent Panel. See X525-25AT

| Chemical               | CAS No    | Media/Item #   | Media Description                        | Sampling Rate (mL/min) | PEL              | STEL                      | 8 hr Rpt Lmt  | RL (ug) | Vol (L) | TAT | Method Ref       | Test Group  | Synonyms | Notes/Comments   |
|------------------------|-----------|----------------|--|------------------------|------------------|---------------------------|---------------|---------|---------|-----|------------------|-------------|----------|--|
| Acetaldehyde #         | 75-07-0   | 571AT #        | 571AT Badge                              | 11.7                   | OSHA 200 PPM     |                           | 0.30 PPM      | 3       | 10      | 6   | MOD EPA TO-11    | Aldehyde    |          | Sampling rate has been lab verified.   |
| Acetaldehyde           | 75-07-0   | 581AT          | 581AT Badge                              | 84.7                   | OSHA 200 PPM     |                           | 0.04 PPM      | 3       | 3       | 6   | MOD EPA TO-11    | Aldehyde    |          |  |
| Acetic Acid            | 64-19-7   | J6-001         | Tube, Charcoal 50-100mg Tube             | 0.10 L/min             | OSHA 10 PPM      |                           | 0.0085 PPM    | 1       | 24      | 6   | MOD OSHA 1865G   | Acetic Acid | Propenal |  |
| Acetic Acid #          | 64-19-7   | 543AT #        | 543AT Badge                              | 11                     | OSHA 10 PPM      |                           | 0.077 PPM     | 1       | 6       | 6   | MOD OSHA 1865G   | Acetic Acid | Propenal | Can only be collected on 543 monitor. The media inside the badge changed with lot 6N17. The previous sampling rate was 7.09 mL/min. *** Sampling rate has been lab verified.   |
| Acetone                | 67-64-1   | 521AT          | 521AT Badge                              | 83                     | OSHA 1000 PPM    |                           | 0.021 PPM     | 2       | 6       | 6   | AT L-OV (GC/FID) | OV List A   |          | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.   |
| Acetone #              | 67-64-1   | 546AT #        | 546AT Badge                              | 3.23                   | OSHA 1000 PPM    |                           | 0.54 PPM      | 2       | 6       | 6   | AT L-OV (GC/FID) | OV List A   |          | Sampling rate has been lab verified.   |
| Acetone                | 67-64-1   | 566AT          | 566AT Badge                              | 12.9                   | OSHA 1000 PPM    |                           | 0.14 PPM      | 2       | 6       | 6   | AT L-OV (GC/FID) | OV List A   |          | Sampling rate has been lab verified.   |
| Acetone                | 67-64-1   | J6-001         | Tube, Charcoal 50-100mg Tube             | 0.10 L/min             | OSHA 1000 PPM    |                           | 0.018 PPM     | 2       | 10      | 6   | AT L-OV (GC/FID) | OV List A   |          |  |
| Acetone                | 67-64-1   | 525AT          | 525AT Badge                              | 87.2                   | OSHA 1000 PPM    |                           | 0.020 PPM     | 2       | 6       | 6   | AT L-OV (GC/FID) | OV List A   |          | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.   |
| Acetonitrile           | 75-05-8   | 521AT          | 521AT Badge                              | 93.6                   | OSHA 40 PPM      |                           | 0.019 PPM     | 1.4     | 6       | 6   | AT L-OV (GC/FID) | OV List A   |          | Sampling rate has been lab verified.   |
| Acetonitrile           | 75-05-8   | 546AT          | 546AT Badge                              | 3.48                   | OSHA 40 PPM      |                           | 0.50 PPM      | 1.4     | 6       | 6   | AT L-OV (GC/FID) | OV List A   |          | Sampling rate has been lab verified.   |
| Acetonitrile #         | 75-05-8   | 566AT #        | 566AT Badge                              | 13.9                   | OSHA 40 PPM      |                           | 0.12 PPM      | 1.4     | 6       | 6   | AT L-OV (GC/FID) | OV List A   |          | Sampling rate has been lab verified.   |
| Acetonitrile           | 75-05-8   | J6-001         | Tube, Charcoal 50-100mg Tube             | 0.10 L/min             | OSHA 40 PPM      |                           | 0.031 PPM     | 1.4     | 10      | 6   | AT L-OV (GC/FID) | OV List A   |          |  |
| Acetonitrile           | 75-05-8   | 525AT          | 525AT Badge                              | 98.3                   | OSHA 40 PPM      |                           | 0.018 PPM     | 1.4     | 6       | 6   | AT L-OV (GC/FID) | OV List A   |          | Sampling rate has been lab verified.   |
| Acetophenone           | 98-86-2   | 566AT          | 566AT Badge                              | 8                      | OSHA 2 PPM       |                           | 0.26 PPM      | 5       | 6       | 6   | AT L-OV (GC/FID) | OV List B   |          |  |
| Acrolein #             | 107-02-8  | 592AT #        | 592AT Badge                              | 8.56                   | OSHA 0.1 PPM     |                           | 0.053 PPM     | 0.5     | 10      | 6   | MOD OSHA 52      | Acrolein    |          | Sampling rate has been lab verified.   |
| Acrolein               | 107-02-8  | J6-117         | Tube, XAD-2 (2-HMP) 75-1150mg Tube       |                        | OSHA 0.1 PPM     |                           | 0.5           | 10      | 6       | 6   | MOD OSHA 52      | Acrolein    |          |  |
| Acrylonitrile          | 107-13-1  | 521AT          | 521AT Badge                              | 83.8                   | OSHA 2 PPM       | OSHA CEILING 10 PPM       | 0.011 PPM     | 1       | 6       | 6   | MOD NIOSH 1604   | OV List A   |          |  |
| Acrylonitrile          | 107-13-1  | 546AT          | 546AT Badge                              | 3.23                   | OSHA 2 PPM       | OSHA CEILING 10 PPM       | 0.30 PPM      | 1       | 6       | 6   | MOD NIOSH 1604   | OV List A   |          |  |
| Acrylonitrile          | 107-13-1  | 566AT          | 566AT Badge                              | 12.9                   | OSHA 2 PPM       | OSHA CEILING 10 PPM       | 0.074 PPM     | 1       | 6       | 6   | MOD NIOSH 1604   | OV List A   |          |  |
| Acrylonitrile          | 107-13-1  | J6-001         | Tube, Charcoal 50-100mg Tube             | 0.10 L/min             | OSHA 2 PPM       | OSHA CEILING 10 PPM       | 0.096 PPM     | 1       | 20      | 6   | MOD NIOSH 1604   | OV List A   |          |  |
| Acrylonitrile #        | 107-13-1  | 525AT #        | 525AT Badge                              | 88                     | OSHA 2 PPM       | OSHA CEILING 10 PPM       | 0.011 PPM     | 1       | 6       | 6   | MOD NIOSH 1604   | OV List A   |          |  |
| Allyl Alcohol          | 107-18-6  | 521AT          | 521AT Badge                              | 80.8                   | OSHA 2 PPM       | NIOSH CEILING 4 PPM       | 0.0098 PPM    | 0.9     | 6       | 6   | AT L-OV (GC/FID) | OV List A   |          |  |
| Allyl Alcohol          | 107-18-6  | 546AT          | 546AT Badge                              | 3.01                   | OSHA 2 PPM       | NIOSH CEILING 4 PPM       | 0.26 PPM      | 0.9     | 6       | 6   | AT L-OV (GC/FID) | OV List A   |          |  |
| Allyl Alcohol          | 107-18-6  | 566AT          | 566AT Badge                              | 12.1                   | OSHA 2 PPM       | NIOSH CEILING 4 PPM       | 0.065 PPM     | 0.9     | 6       | 6   | AT L-OV (GC/FID) | OV List A   |          |  |
| Allyl Alcohol #        | 107-18-6  | 525AT #        | 525AT Badge                              | 84.8                   | OSHA 2 PPM       | NIOSH CEILING 4 PPM       | 0.093 PPM     | 0.9     | 6       | 6   | AT L-OV (GC/FID) | OV List A   |          |  |
| Allyl Chloride         | 107-05-1  | 521AT          | 521AT Badge                              | 80.8                   | OSHA 2 PPM       |                           | 0.091 PPM     | 1.1     | 6       | 6   | AT L-OV (GC/FID) | OV List A   |          |  |
| Allyl Chloride         | 107-05-1  | 546AT          | 546AT Badge                              | 2.62                   | OSHA 2 PPM       |                           | 0.24 PPM      | 1.1     | 6       | 6   | AT L-OV (GC/FID) | OV List A   |          |  |
| Allyl Chloride         | 107-05-1  | 566AT          | 566AT Badge                              | 10.5                   | OSHA 2 PPM       |                           | 0.070 PPM     | 1.1     | 6       | 6   | AT L-OV (GC/FID) | OV List A   |          |  |
| Allyl Chloride #       | 107-05-1  | 525AT #        | 525AT Badge                              | 84.8                   | OSHA 2 PPM       |                           | 0.086 PPM     | 1.1     | 6       | 6   | AT L-OV (GC/FID) | OV List A   |          |  |
| Aluminum               | 7429-90-5 | J537MCE208     | Cassette, MCE Cassette                   | 2.0 L/min              | OSHA 15 MG/M3    |                           | 0.0021 MG/M3  | 2       | 1000    | 6   | MOD OSHA ID 125  | ICP         |          | J8114K: J5-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.  |
| Aluminum               | 7429-90-5 | J8114K SMR TAB | Smear Tab                                |                        | OSHA 15 MG/M3    |                           |               | 2       | 6       | 6   | MOD OSHA ID 125  | ICP         |          | J8114K: J5-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.  |
| Aluminum Chloride      | 7446-70-0 | J8114K SMR TAB | Smear Tab                                |                        |                  |                           |               | 5       | 6       | 6   | MOD OSHA ID 125  | ICP         |          | J8114K: J5-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.  |
| Aluminum Chloride      | 7446-70-0 | J537MCE208     | Cassette, MCE Cassette                   | 2.0 L/min              |                  |                           | 0.0052 MG/M3  | 5       | 1000    | 6   | MOD OSHA ID 125  | ICP         |          |  |
| Ammonia #              | 7664-41-7 | 58AAT #        | 58AAT Badge                              | 28.8                   | OSHA 50 PPM      |                           | 0.31 PPM      | 3       | 6       | 6   | MOD OSHA ID 188  | Ammonia     |          | Sampling rate has been lab verified.   |
| Ammonia                | 7664-41-7 | J6-010J6       | Tube, Silica Gel-w/H2SO4 100-1200mg Tube | 0.10 L/min             | OSHA 50 PPM      |                           | 0.090 PPM     | 3       | 24      | 6   | MOD OSHA ID 188  | Ammonia     |          |  |
| Amyl Acetate           | 628-63-7  | 546AT          | 546AT Badge                              | 2.62                   | OSHA 1 PPM       |                           | 0.18 PPM      | 0.9     | 6       | 6   | AT L-OV (GC/FID) | OV List A   |          |  |
| Amyl Acetate #         | 628-63-7  | 566AT #        | 566AT Badge                              | 8.03                   | OSHA 1 PPM       |                           | 0.044 PPM     | 0.9     | 6       | 6   | AT L-OV (GC/FID) | OV List A   |          |  |
| Antimony               | 7440-36-0 | J8114K SMR TAB | Smear Tab                                |                        | OSHA 0.5 MG/M3   |                           |               | 0.5     | 6       | 6   | MOD OSHA ID 125  | ICP         |          | J8114K: J5-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.  |
| Antimony               | 7440-36-0 | J537MCE208     | Cassette, MCE Cassette                   | 2.0 L/min              | OSHA 0.5 MG/M3   |                           | 0.00052 MG/M3 | 0.5     | 1000    | 6   | MOD OSHA ID 125  | ICP         |          |  |
| Arsenic                | 7440-38-2 | J8109K W WIFE  | Ghost Wipe                               |                        | OSHA 0.01 MG/M3  | NIOSH CEILING 0.002 MG/M3 |               | 0.5     | 6       | 6   | MOD OSHA ID 125  | ICP         |          | J8109K: J5-025 + J8054 (Ghost wipe with Vial). Ghost wipes are pre-moistened with DI water. Additional DI water is not necessary.  |
| Arsenic                | 7440-38-2 | J8114K SMR TAB | Smear Tab                                |                        | OSHA 0.01 MG/M3  | NIOSH CEILING 0.002 MG/M3 |               | 0.5     | 6       | 6   | MOD OSHA ID 125  | ICP         |          | J8114K: J5-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.  |
| Arsenic                | 7440-38-2 | J537MCE208     | Cassette, MCE Cassette                   | 2.0 L/min              | OSHA 0.01 MG/M3  | NIOSH CEILING 0.002 MG/M3 | 0.00052 MG/M3 | 0.5     | 1000    | 6   | MOD OSHA ID 125  | ICP         |          |  |
| Asbestos Fibers by PDM | 1332-21-4 | JC25MCE308     | Cassette, MCE (Asbestos)                 | 2.0 L/min              |                  |                           |               | 400     | 10      | 6   | NIOSH 7400 (A)   | Asbestos    |          | Adjust flow to give 100 to 1300 fiber/mm <sup>3</sup> . 0.5 to 16 L/min. All Asbestos analyses are contracted to another AIHA LLC accredited laboratory.   |
| Asbestos Fibers by TEM | 1332-21-4 | JC25MCE3045    | Cassette, MCE (TEM)                      | 2.0 L/min              |                  |                           |               | 400     | 10      | 6   | NIOSH 7402       | Asbestos    |          | Adjust flow to give 100 to 1300 fiber/mm <sup>3</sup> . 0.5 to 16 L/min. All Asbestos analyses are contracted to another AIHA LLC accredited laboratory.   |
| Barium                 | 7440-39-3 | J8114K SMR TAB | Smear Tab                                |                        | NIOSH 0.5 MG/M3  |                           |               | 0.05    | 6       | 6   | MOD OSHA ID 125  | ICP         |          | J8114K: J5-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.  |
| Barium                 | 7440-39-3 | J537MCE208     | Cassette, MCE Cassette                   | 2.0 L/min              | NIOSH 0.5 MG/M3  |                           | 0.00052 MG/M3 | 0.05    | 1000    | 6   | MOD OSHA ID 125  | ICP         |          |  |
| Benzaldehyde #         | 100-52-7  | 571AT #        | 571AT Badge                              | 6.97                   | OSHA 1 PPM       |                           | 0.021 PPM     | 0.3     | 10      | 6   | MOD EPA TO-11    | Aldehyde    | Benzal   |  |
| Benzaldehyde           | 100-52-7  | 581AT          | 581AT Badge                              | 75.8                   | OSHA 1 PPM       |                           | 0.0022 PPM    | 0.3     | 10      | 6   | MOD EPA TO-11    | Aldehyde    | Benzal   |  |
| Benzene                | 71-43-2   | 521AT          | 521AT Badge                              | 63                     | OSHA 1 PPM       | OSHA STEL 5 PPM           | 0.0036 PPM    | 0.4     | 6       | 6   | AT L-OV (GC/FID) | OV List A   |          | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.   |
| Benzene                | 71-43-2   | 546AT          | 546AT Badge                              | 2.42                   | OSHA 1 PPM       | OSHA STEL 5 PPM           | 0.11 PPM      | 0.4     | 6       | 6   | AT L-OV (GC/FID) | OV List A   |          | Sampling rate has been lab verified.   |
| Benzene                | 71-43-2   | 566AT          | 566AT Badge                              | 9.69                   | OSHA 1 PPM       | OSHA STEL 5 PPM           | 0.027 PPM     | 0.4     | 6       | 6   | AT L-OV (GC/FID) | OV List A   |          | Sampling rate has been lab verified.   |
| Benzene                | 71-43-2   | J6-001         | Tube, Charcoal 50-100mg Tube             | 0.10 L/min             | OSHA 1 PPM       | OSHA STEL 5 PPM           | 0.0026 PPM    | 0.4     | 10      | 6   | AT L-OV (GC/FID) | OV List A   |          |  |
| Benzene #              | 71-43-2   | 525AT #        | 525AT Badge                              | 76.7                   | OSHA 1 PPM       | OSHA STEL 5 PPM           | 0.0034 PPM    | 0.4     | 6       | 6   | AT L-OV (GC/FID) | OV List A   |          | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.   |
| Benzyl Alcohol #       | 100-51-6  | 566AT #        | 566AT Badge                              | 8.5                    | OSHA 1 PPM       |                           | 0.28 PPM      | 5       | 6       | 6   | AT L-OV (GC/FID) | OV List A   |          |  |
| Benzyl Alcohol         | 100-51-6  | 521AT          | 521AT Badge                              | 62.3                   | OSHA 1 PPM       |                           | 0.038 PPM     | 5       | 6       | 6   | AT L-OV (GC/FID) | OV List A   |          |  |
| Benzyl Alcohol         | 100-51-6  | 546AT          | 546AT Badge                              | 2.13                   | OSHA 1 PPM       |                           | 1.1 PPM       | 5       | 6       | 6   | AT L-OV (GC/FID) | OV List A   |          |  |
| Benzyl Alcohol         | 100-51-6  | 525AT          | 525AT Badge                              | 65.4                   | OSHA 1 PPM       |                           | 0.036 PPM     | 5       | 6       | 6   | AT L-OV (GC/FID) | OV List A   |          |  |
| Benzyl Chloride        | 100-44-7  | 521AT          | 521AT Badge                              | 56.4                   | OSHA 1 PPM       | NIOSH CEILING 1 PPM       | 0.0071 PPM    | 1       | 6       | 6   | AT L-OV (GC/FID) | OV List B   |          |  |
| Benzyl Chloride        | 100-44-7  | 546AT          | 546AT Badge                              | 2.03                   | OSHA 1 PPM       | NIOSH CEILING 1 PPM       | 0.20 PPM      | 1       | 6       | 6   | AT L-OV (GC/FID) | OV List B   |          |  |
| Benzyl Chloride        | 100-44-7  | 566AT          | 566AT Badge                              | 8.14                   | OSHA 1 PPM       | NIOSH CEILING 1 PPM       | 0.049 PPM     | 1       | 6       | 6   | AT L-OV (GC/FID) | OV List B   |          |  |
| Benzyl Chloride        | 100-44-7  | J6-001         | Tube, Charcoal 50-100mg Tube             | 0.10 L/min             | OSHA 1 PPM       | NIOSH CEILING 1 PPM       | 0.0040 PPM    | 1       | 10      | 6   | AT L-OV (GC/FID) | OV List B   |          |  |
| Benzyl Chloride #      | 100-44-7  | 525AT #        | 525AT Badge                              | 59.2                   | OSHA 1 PPM       | NIOSH CEILING 1 PPM       | 0.0068 PPM    | 1       | 6       | 6   | AT L-OV (GC/FID) | OV List B   |          |  |
| Beryllium              | 7440-41-7 | J8114K SMR TAB | Smear Tab                                |                        | OSHA 0.002 MG/M3 | OSHA CEILING 0.005 MG/M3  |               | 0.05    | 6       | 6   | MOD OSHA ID 125  | ICP         |          | Does not include Beryllium Oxide. Contact Customer Service for Beryllium Oxide Testing. Order Kit J58114K: J5-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment. |
| Beryllium              | 7440-41-7 | J8109K W WIFE  | Ghost Wipe                               |                        | OSHA 0.002 MG/M3 | OSHA CEILING 0.005 MG/M3  |               | 0.05    | 6       | 6   | MOD OSHA ID 125  | ICP         |          | Does not include Beryllium Oxide. Contact Customer Service for Beryllium Oxide Testing. J8109K: J5-025 + J8054 (Ghost wipe with Vial). Ghost wipes are pre-moistened with DI water. Additional DI water is not necessary.                  |
| Beryllium              | 7440-41-7 | J537MCE208     | Cassette, MCE Cassette                   | 2.0 L/min              | OSHA 0.002 MG/M3 | OSHA CEILING 0.005 MG/M3  | 0.00052 MG/M3 | 0.05    | 1000    | 6   | MOD OSHA ID 125  | ICP         |          |  |
| Boron                  | 7440-42-8 | J8114K SMR TAB | Smear Tab                                |                        |                  |                           |               | 0.5     | 6       | 6   | MOD OSHA ID 125  | ICP         |          | J8114K: J5-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.  |
| Boron                  | 7440-42-8 | J537MCE208     | Cassette, MCE Cassette                   | 2.0 L/min              |                  |                           | 0.00052 MG/M3 | 0.5     | 1000    | 6   | MOD OSHA ID 125  | ICP         |          |  |
| Bromine                | 7726-95-6 | J5-9006        | Cassette, PTFE Ag membrane               | 1.0 L/min              | OSHA 0.1 PPM     |                           | 0.0016 PPM    | 5       | 360     | 6   | MOD NIOSH 6011   | Halogen     |          |  |
| 1,3-Butadiene          | 106-99-0  | 546AT          | 546AT Badge                              | 3.2                    | OSHA 1 PPM       | OSHA STEL 5 PPM           | 0.18 PPM      | 0.6     | 6       | 6   | AT L-OV (GC/FID) | OV List A   |          | It is not recommended that 1,3-Butadiene be collected on the 521/525 badge.  |
| 1,3-Butadiene #        | 106-99-0  | 566AT #        | 566AT Badge                              | 12.8                   | OSHA 1 PPM       | OSHA STEL 5 PPM           | 0.044 PPM     | 0.6     | 6       | 6   | AT L-OV (GC/FID) | OV List A   |          | It is not recommended that 1,3-Butadiene be collected on the 521/525 badge.  |
| 1,3-Butadiene          | 106-99-0  | J6-001         | Tube, Charcoal 50-100mg Tube             | 0.                     |                  |                           |               |         |         |     |                  |             |          |  |

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 Many of the NIOSH/OSHA methods have been modified. For a list of significant modifications, go to [www.assaytech.com](http://www.assaytech.com).  
 Information in this table can change without notice.

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# - Indicates the badge / chemical combination we recommend.

| Chemical                | CAS No     | Media/Item #   | Media Description            | Sampling Rate (mL/min) | PEL              | STEL                   | 8 hr Rpt Lmt   | RL (ug) | Vol (L) | TAT           | Method Ref       | Test Group  | Synonyms                      | Notes/Comments   |
|-------------------------|------------|----------------|------------------------------|------------------------|------------------|------------------------|----------------|---------|---------|---------------|------------------|-------------|-------------------------------|--|
| 2-Butoxyethanol         | 111-76-2   | J6-001         | Tube, Charcoal 50-100mg Tube | 0.10 L/min             | OSHA 50 PPM      |                        | 0.022 PPM      | 5       | 10      | 6             | AT-L-0V (GC/FID) | OV List A   | Butyl Cellosolve              |  |
| 2-Butoxyethanol         | 111-76-2   | 521AT          | 521AT Badge                  | 50.2                   | OSHA 50 PPM      |                        | 0.041 PPM      | 5       |         | 6             | AT-L-0V (GC/FID) | OV List A   | Butyl Cellosolve              | Sampling rate has been lab verified.   |
| 2-Butoxyethanol         | 111-76-2   | 525AT          | 525AT Badge                  | 52.7                   | OSHA 50 PPM      |                        | 0.041 PPM      | 5       |         | 6             | AT-L-0V (GC/FID) | OV List A   | Butyl Cellosolve              | Sampling rate has been lab verified.   |
| N-Butyl Acetate         | 123-86-4   | 521AT          | 521AT Badge                  | 53.2                   | OSHA 150 PPM     |                        | 0.0074 PPM     | 0.9     |         | 6             | AT-L-0V (GC/FID) | OV List A   |                               | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide.  |
| N-Butyl Acetate #       | 123-86-4   | 546AT #        | 546AT Badge                  | 1.99                   | OSHA 150 PPM     |                        | 0.20 PPM       | 0.9     |         | 6             | AT-L-0V (GC/FID) | OV List A   |                               |  |
| N-Butyl Acetate         | 123-86-4   | 566AT          | 566AT Badge                  | 7.94                   | OSHA 150 PPM     |                        | 0.050 PPM      | 0.9     |         | 6             | AT-L-0V (GC/FID) | OV List A   |                               |  |
| N-Butyl Acetate         | 123-86-4   | J6-001         | Tube, Charcoal 50-100mg Tube | 0.10 L/min             | OSHA 150 PPM     |                        | 0.0039 PPM     | 0.9     | 10      | 6             | AT-L-0V (GC/FID) | OV List A   |                               |  |
| N-Butyl Acetate         | 123-86-4   | 525AT          | 525AT Badge                  | 55.9                   | OSHA 150 PPM     |                        | 0.0071 PPM     | 0.9     |         | 6             | AT-L-0V (GC/FID) | OV List A   |                               | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide.  |
| Tert-Butyl Acetate #    | 540-88-5   | 546AT #        | 546AT Badge                  | 2.13                   | OSHA 200 PPM     |                        | 0.41 PPM       | 2       |         | 6             | AT-L-0V (GC/FID) | OV List A   |                               | Sampling rate has been lab verified.   |
| Tert-Butyl Acetate      | 540-88-5   | 566AT          | 566AT Badge                  | 8.5                    | OSHA 200 PPM     |                        | 0.17 PPM       | 2       |         | 6             | AT-L-0V (GC/FID) | OV List A   |                               | Sampling rate has been lab verified.   |
| Tert-Butyl Acetate      | 540-88-5   | 521AT          | 521AT Badge                  | 53                     | OSHA 200 PPM     |                        | 0.017 PPM      | 2       |         | 6             | AT-L-0V (GC/FID) | OV List A   |                               | Sampling rate has been lab verified.   |
| Tert-Butyl Acetate      | 540-88-5   | J6-001         | Tube, Charcoal 50-100mg Tube | 0.10 L/min             | OSHA 200 PPM     |                        | 0.0088 PPM     | 2       | 10      | 6             | AT-L-0V (GC/FID) | OV List A   |                               |  |
| Tert-Butyl Acetate      | 540-88-5   | 525AT          | 525AT Badge                  | 55.7                   | OSHA 200 PPM     |                        | 0.016 PPM      | 2       |         | 6             | AT-L-0V (GC/FID) | OV List A   |                               | Sampling rate has been lab verified.   |
| Butyl Acrylate          | 141-32-2   | 521AT          | 521AT Badge                  | 55.6                   | OSHA 200 PPM     |                        | 0.0093 PPM     | 1.3     |         | 6             | AT-L-0V (GC/FID) | OV List A   |                               |  |
| Butyl Acrylate          | 141-32-2   | 546AT          | 546AT Badge                  | 2.03                   | OSHA 200 PPM     |                        | 0.26 PPM       | 1.3     |         | 6             | AT-L-0V (GC/FID) | OV List A   |                               |  |
| Butyl Acrylate          | 141-32-2   | 566AT          | 566AT Badge                  | 8.1                    | OSHA 200 PPM     |                        | 0.064 PPM      | 1.3     |         | 6             | AT-L-0V (GC/FID) | OV List A   |                               |  |
| Butyl Acrylate #        | 141-32-2   | 525AT #        | 525AT Badge                  | 58.4                   | OSHA 200 PPM     |                        | 0.0088 PPM     | 1.3     |         | 6             | AT-L-0V (GC/FID) | OV List A   |                               |  |
| T-Butyl Alcohol         | 75-65-0    | 546AT          | 546AT Badge                  | 2.67                   | OSHA 100 PPM     | NIOSH STEL 150 PPM     | 0.26 PPM       | 1       |         | 6             | AT-L-0V (GC/FID) | OV List A   |                               |  |
| T-Butyl Alcohol #       | 75-65-0    | 566AT #        | 566AT Badge                  | 10.7                   | OSHA 100 PPM     | NIOSH STEL 150 PPM     | 0.064 PPM      | 1       |         | 6             | AT-L-0V (GC/FID) | OV List A   |                               |  |
| Butyl Glycidyl Ether #  | 192337     | 566AT          | 566AT Badge                  | 7.7                    | OSHA 50 PPM      | NIOSH CEILING 5.6 PPM  | 0.051 PPM      | 1       |         | 6             | AT-L-0V (GC/FID) | OV List B   |                               |  |
| Butyl Glycidyl Ether    | 192337     | 546AT          | 546AT Badge                  | 1.92                   | OSHA 50 PPM      | NIOSH CEILING 5.6 PPM  | 0.20 PPM       | 1       |         | 6             | AT-L-0V (GC/FID) | OV List B   |                               |  |
| Butyl Glycidyl Ether    | 192337     | 521AT          | 521AT Badge                  | 55.3                   | OSHA 50 PPM      | NIOSH CEILING 5.6 PPM  | 0.0071 PPM     | 1       |         | 6             | AT-L-0V (GC/FID) | OV List B   |                               |  |
| Butyl Glycidyl Ether    | 192337     | 525AT          | 525AT Badge                  | 58.1                   | OSHA 50 PPM      | NIOSH CEILING 5.6 PPM  | 0.0067 PPM     | 1       |         | 6             | AT-L-0V (GC/FID) | OV List B   |                               |  |
| Butyl Methacrylate      | 97-88-1    | 566AT          | 566AT Badge                  | 7.4                    | OSHA 50 PPM      |                        | 0.063 PPM      | 1.3     |         | 6             | AT-L-0V (GC/FID) | OV List A   |                               |  |
| Butyl Methacrylate      | 97-88-1    | 521AT          | 521AT Badge                  | 53.8                   | OSHA 50 PPM      |                        | 0.0087 PPM     | 1.3     |         | 6             | AT-L-0V (GC/FID) | OV List A   |                               |  |
| Butyl Methacrylate      | 97-88-1    | 525AT          | 525AT Badge                  | 56.5                   | OSHA 50 PPM      |                        | 0.0082 PPM     | 1.3     |         | 6             | AT-L-0V (GC/FID) | OV List A   |                               |  |
| T-Butyl Methyl Ether    | 1634-04-4  | 521AT          | 521AT Badge                  | 62.9                   | OSHA 50 PPM      |                        | 0.0083 PPM     | 0.9     |         | 6             | AT-L-0V (GC/FID) | OV List A   | Methyl tert Butyl Ether, MTBE |  |
| T-Butyl Methyl Ether    | 1634-04-4  | 546AT          | 546AT Badge                  | 2.44                   | OSHA 50 PPM      |                        | 0.21 PPM       | 0.9     |         | 6             | AT-L-0V (GC/FID) | OV List A   | Methyl tert Butyl Ether, MTBE |  |
| T-Butyl Methyl Ether #  | 1634-04-4  | 566AT #        | 566AT Badge                  | 9.77                   | OSHA 50 PPM      |                        | 0.051 PPM      | 0.9     |         | 6             | AT-L-0V (GC/FID) | OV List A   | Methyl tert Butyl Ether, MTBE |  |
| T-Butyl Methyl Ether    | 1634-04-4  | J6-001         | Tube, Charcoal 50-100mg Tube | 0.10 L/min             | OSHA 50 PPM      |                        | 0.0052 PPM     | 0.9     | 10      | 6             | AT-L-0V (GC/FID) | OV List A   | Methyl tert Butyl Ether, MTBE |  |
| T-Butyl Methyl Ether    | 1634-04-4  | 525AT          | 525AT Badge                  | 66                     | OSHA 50 PPM      |                        | 0.0079 PPM     | 0.9     |         | 6             | AT-L-0V (GC/FID) | OV List A   | Methyl tert Butyl Ether, MTBE |  |
| Butylamine #            | 109-73-9   | 585AT #        | 585AT Badge                  | 7.04                   | OSHA 5 PPM       |                        | 0.049 PPM      | 0.5     | 10      | MOD OSHA 60   | Amine            |             |                               | Sampling rate has been lab verified.   |
| Butyraldehyde #         | 123-72-8   | 571AT #        | 571AT Badge                  | 8.2                    | OSHA 10 PPM      |                        | 0.026 PPM      | 0.3     | 10      | MOD EPA TO-11 | Aldehyde         | Butanal     |                               |  |
| Butyraldehyde           | 123-72-8   | J6-119         | Tube, Silica Gel-DNPH Tube   | 0.10 L/min             | OSHA 10 PPM      |                        | 0.021 PPM      | 3       | 30      | 10            | MOD EPA TO-11    | Aldehyde    | Butanal                       |  |
| Butyraldehyde           | 123-72-8   | 581AT          | 581AT Badge                  | 70.8                   | OSHA 10 PPM      |                        | 0.0030 PPM     | 0.3     | 10      | MOD EPA TO-11 | Aldehyde         | Butanal     |                               |  |
| Cadmium                 | 7440-43-9  | J8109K G WIPE  | Ghost Wipe                   |                        | OSHA 0.005 MG/M3 |                        |                | 0.05    |         | 6             | MOD OSHA ID 125  | ICP         |                               | J8109K: J5-025 + J8054 (Ghost wipe with Vial). Ghost wipes are pre-moistened with DI water. Additional DI water is not necessary.  |
| Cadmium                 | 7440-43-9  | J8114K SMR TAB | Smear Tab                    |                        | OSHA 0.005 MG/M3 |                        |                | 0.05    |         | 6             | MOD OSHA ID 125  | ICP         |                               | J8114K: J5-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.  |
| Cadmium                 | 7440-43-9  | J537MCE208     | Cassette, MCE Cassette       | 2.0 L/min              | OSHA 0.005 MG/M3 |                        | 0.000052 MG/M3 | 0.05    | 1000    | 6             | MOD OSHA ID 125  | ICP         |                               |  |
| Calcium                 | 7440-70-2  | J8114K SMR TAB | Smear Tab                    |                        | OSHA 0.005 MG/M3 |                        |                | 0.05    | 1000    | 6             | MOD OSHA ID 125  | ICP         |                               | J8114K: J5-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.  |
| Calcium                 | 7440-70-2  | J537MCE208     | Cassette, MCE Cassette       | 2.0 L/min              | OSHA 0.005 MG/M3 |                        | 0.0021 MG/M3   | 2       | 1000    | 6             | MOD OSHA ID 125  | ICP         |                               |  |
| Camphor                 | 76-22-2    | 521AT          | 521AT Badge                  | 45.4                   | OSHA 10 PPM      |                        | 0.0044 PPM     | 0.6     |         | 6             | AT-L-0V (GC/FID) | OV List B   |                               |  |
| Camphor                 | 76-22-2    | 546AT          | 546AT Badge                  | 1.61                   | OSHA 10 PPM      |                        | 0.12 PPM       | 0.6     |         | 6             | AT-L-0V (GC/FID) | OV List B   |                               |  |
| Camphor                 | 76-22-2    | 566AT          | 566AT Badge                  | 6.43                   | OSHA 10 PPM      |                        | 0.031 PPM      | 0.6     |         | 6             | AT-L-0V (GC/FID) | OV List B   |                               |  |
| Camphor #               | 76-22-2    | 525AT #        | 525AT Badge                  | 47.7                   | OSHA 10 PPM      |                        | 0.0042 PPM     | 0.6     |         | 6             | AT-L-0V (GC/FID) | OV List B   |                               |  |
| Carbon Black            | 1333-86-4  | J537PVCWZ50    | Cassette, PVC Pr-wt Cassette | 2.0 L/min              | OSHA 3.5 MG/M3   |                        | 0.021 MG/M3    | 20      | 1000    | 6             | MOD NIOSH 5000   | Gravimetric |                               |  |
| Carbon Tetrachloride    | 56-23-5    | 521AT          | 521AT Badge                  | 65.6                   | OSHA 10 PPM      | OSHA CEILING 25 PPM    | 0.025 PPM      | 5       |         | 6             | AT-L-0V (GC/FID) | OV List A   | Tetrachloromethane            |  |
| Carbon Tetrachloride    | 56-23-5    | 546AT          | 546AT Badge                  | 1.85                   | OSHA 10 PPM      | OSHA CEILING 25 PPM    | 0.90 PPM       | 5       |         | 6             | AT-L-0V (GC/FID) | OV List A   | Tetrachloromethane            |  |
| Carbon Tetrachloride    | 56-23-5    | 566AT          | 566AT Badge                  | 7.38                   | OSHA 10 PPM      | OSHA CEILING 25 PPM    | 0.22 PPM       | 5       |         | 6             | AT-L-0V (GC/FID) | OV List A   | Tetrachloromethane            |  |
| Carbon Tetrachloride    | 56-23-5    | J6-001         | Tube, Charcoal 50-100mg Tube | 0.10 L/min             | OSHA 10 PPM      | OSHA CEILING 25 PPM    | 0.017 PPM      | 5       | 10      | 6             | AT-L-0V (GC/FID) | OV List A   | Tetrachloromethane            |  |
| Carbon Tetrachloride #  | 56-23-5    | 525AT #        | 525AT Badge                  | 68.9                   | OSHA 10 PPM      | OSHA CEILING 25 PPM    | 0.024 PPM      | 5       |         | 6             | AT-L-0V (GC/FID) | OV List A   | Tetrachloromethane            |  |
| Chlorine                | 7782-50-5  | J5-9006        | Cassette, PTFE Ag membrane   | 1.0 L/min              | OSHA 75 PPM      | OSHA CEILING 1 PPM     | 0.014 PPM      | 2       | 360     | 6             | MOD NIOSH 6011   | Halogen     |                               |  |
| Chlorobenzene           | 108-90-7   | 546AT          | 546AT Badge                  | 2.16                   | OSHA 75 PPM      |                        | 0.13 PPM       | 0.6     |         | 6             | AT-L-0V (GC/FID) | OV List A   |                               |  |
| Chlorobenzene #         | 108-90-7   | 566AT #        | 566AT Badge                  | 8.64                   | OSHA 75 PPM      |                        | 0.031 PPM      | 0.6     |         | 6             | AT-L-0V (GC/FID) | OV List A   |                               |  |
| Chlorobenzene           | 108-90-7   | J6-001         | Tube, Charcoal 50-100mg Tube | 0.10 L/min             | OSHA 75 PPM      |                        | 0.0027 PPM     | 0.6     | 10      | 6             | AT-L-0V (GC/FID) | OV List A   |                               |  |
| Chlorobenzene           | 108-90-7   | 521AT          | 521AT Badge                  | 59.2                   | OSHA 75 PPM      |                        | 0.0046 PPM     | 0.6     |         | 6             | AT-L-0V (GC/FID) | OV List A   |                               |  |
| Chlorobenzene           | 108-90-7   | 525AT          | 525AT Badge                  | 62.2                   | OSHA 75 PPM      |                        | 0.0044 PPM     | 0.6     |         | 6             | AT-L-0V (GC/FID) | OV List A   |                               |  |
| Chloroform              | 67-66-3    | 521AT          | 521AT Badge                  | 70.4                   | OSHA 10 PPM      | OSHA CEILING 50 PPM    | 0.018 PPM      | 3       |         | 6             | AT-L-0V (GC/FID) | OV List A   | Trichloromethane              | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.   |
| Chloroform              | 67-66-3    | 546AT          | 546AT Badge                  | 2.1                    | OSHA 10 PPM      | OSHA CEILING 50 PPM    | 0.61 PPM       | 3       |         | 6             | AT-L-0V (GC/FID) | OV List A   | Trichloromethane              | Sampling rate has been lab verified.   |
| Chloroform              | 67-66-3    | 566AT          | 566AT Badge                  | 8.39                   | OSHA 10 PPM      | OSHA CEILING 50 PPM    | 0.15 PPM       | 3       |         | 6             | AT-L-0V (GC/FID) | OV List A   | Trichloromethane              | Sampling rate has been lab verified.   |
| Chloroform              | 67-66-3    | J6-001         | Tube, Charcoal 50-100mg Tube | 0.10 L/min             | OSHA 10 PPM      | OSHA CEILING 50 PPM    | 0.013 PPM      | 3       | 10      | 6             | AT-L-0V (GC/FID) | OV List A   | Trichloromethane              |  |
| Chloroform #            | 67-66-3    | 525AT #        | 525AT Badge                  | 73.9                   | OSHA 10 PPM      | OSHA CEILING 50 PPM    | 0.017 PPM      | 3       |         | 6             | AT-L-0V (GC/FID) | OV List A   | Trichloromethane              | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.   |
| Chromium                | 7440-47-3  | J8109K G WIPE  | Ghost Wipe                   |                        | OSHA 1 MG/M3     |                        |                | 0.05    |         | 6             | MOD OSHA ID 125  | ICP         |                               | J8109K: J5-025 + J8054 (Ghost wipe with Vial). Ghost wipes are pre-moistened with DI water. Additional DI water is not necessary.  |
| Chromium                | 7440-47-3  | J8114K SMR TAB | Smear Tab                    |                        | OSHA 1 MG/M3     |                        |                | 0.5     |         | 6             | MOD OSHA ID 125  | ICP         |                               | J8114K: J5-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.  |
| Chromium                | 7440-47-3  | J537MCE208     | Cassette, MCE Cassette       | 2.0 L/min              | OSHA 1 MG/M3     |                        | 0.00052 MG/M3  | 0.5     | 1000    | 6             | MOD OSHA ID 125  | ICP         |                               |  |
| Chromium Hexavalent Ion | 18540-29-9 | J537PVCZ50     | Cassette, PVC Cassette       | 2.0 L/min              | OSHA 0.005 MG/M3 | OSHA CEILING 0.1 MG/M3 |                | 0.05    | 960     | 10            | MOD OSHA 215     | Subcontract |                               | For OSHA 215: Samples collected on PVC filters from welding operations must be submitted within 8 days of sampling. Samples collected on PVC filters from chromium plating operations must be submitted within 6 days of sampling. WIPES: Use dry PVC filters for wipes. Open cassette and wipe with PVC filter. |
| Cobalt                  | 7440-48-4  | J8114K SMR TAB | Smear Tab                    |                        | OSHA 0.1 MG/M3   |                        |                | 0.2     |         | 6             | MOD OSHA ID 125  | ICP         |                               | J8114K: J5-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.  |
| Cobalt                  | 7440-48-4  | J537MCE208     | Cassette, MCE Cassette       | 2.0 L/min              | OSHA 0.1 MG/M3   |                        | 0.000052 MG/M3 | 0.05    | 1000    | 6             | MOD OSHA ID 125  | ICP         |                               |  |
| Copper                  | 7440-50-8  | J8114K SMR TAB | Smear Tab                    |                        | OSHA 0.1 MG/M3   |                        |                | 0.5     |         | 6             | MOD OSHA ID 125  | ICP         |                               | J8114K: J5-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.  |
| Copper                  | 7440-50-8  | J537MCE208     | Cassette, MCE Cassette       | 2.0 L/min              | OSHA 0.1 MG/M3   |                        | 0.00052 MG/M3  | 0.5     | 1000    | 6             | MOD OSHA ID 125  | ICP         |                               |  |
| Cresol, Total           | 1319-77-3  | J6-095         | Tube, XAD-7 50-1100mg Tube   | 0.10 L/min             | OSHA 0.1 MG/M3   |                        | 0.0047 PPM     | 1       | 24      | 10            | MOD OSHA 32      | Phenol      |                               |  |
| Cresol, Total           | 1319-77-3  | 521AT          | 521AT Badge                  | 58.7                   | OSHA 0.1 MG/M3   |                        | 0.040 PPM      | 5       |         | 10            | MOD OSHA 32      | Phenol      |                               | Cresol on a 521 badge is sold as a X521-4AT. If Cresol is submitted on a 521-1, there will be an additional fee. Contact our customer service group for more details. Total Cresol is the sum of o-, m- & p-cresol.  |
| Cresol, Total #         | 1319-77-3  | 525AT #        | 525AT Badge                  | 61.6                   | OSHA 0.1 MG/M3   |                        | 0.038 PPM      | 5       |         | 10            | MOD OSHA 32      | Phenol      |                               | Cresol on a 525 badge is sold as a X525-4AT. If Cresol is submitted on a 525-1, there will be an additional fee. Contact our customer service group for more details. Total Cresol is the sum of o-, m- & p-cresol   |



# Assay Technology Inc - Sampling Guide

# - Indicates the badge / chemical combination we recommend.

The 521 and 580 badges have been replaced by the TraceAir II badges 525 and 581. Until the last lots of 521 and 525 have expired, they will be listed here.

All 521 sampling rates are with both covers removed. Many of the NIOSH/OSHA methods have been modified. For a list of significant modifications, go to [www.assaytech.com](http://www.assaytech.com). Information in this table can change without notice.

OSP = Organic Solvent Panel. See X525-25AT

| Chemical                         | CAS No      | Media/Item # | Media Description              | Sampling Rate (mL/min) | PEL                    | STEL            | 8 hr Rpt Lmt | RL (ug) | Vol (L) | TAT | Method Ref       | Test Group     | Synonyms                             | Notes/Comments   |
|----------------------------------|-------------|--------------|--------------------------------|------------------------|------------------------|-----------------|--------------|---------|---------|-----|------------------|----------------|--------------------------------------|--|
| 2-Ethoxyethanol                  | 110-80-5    | 546AT        | 546AT Badge                    | 2.42                   | OSHA 200 PPM           |                 | 0.47 PPM     | 2       |         | 6   | AT-L-0V (GC/FID) | OV List A      | Cellosolve                           |  |
| 2-Ethoxyethanol #                | 110-80-5    | 566AT #      | 566AT Badge                    | 9.66                   | OSHA 200 PPM           |                 | 0.12 PPM     | 2       |         | 6   | AT-L-0V (GC/FID) | OV List A      | Cellosolve                           |  |
| 2-Ethoxyethanol                  | 110-80-5    | J6-001       | Tube, Charcoal 50-100mg Tube   | 0.10 L/min             | OSHA 200 PPM           |                 | 0.011 PPM    | 2       | 10      | 6   | AT-L-0V (GC/FID) | OV List A      | Cellosolve                           |  |
| 2-Ethoxyethanol                  | 110-80-5    | 525AT        | 525AT Badge                    | 65.5                   | OSHA 200 PPM           |                 | 0.017 PPM    | 2       |         | 6   | AT-L-0V (GC/FID) | OV List A      | Cellosolve                           |  |
| Ethyl Acetate                    | 141-78-6    | 521AT        | 521AT Badge                    | 68.2                   | OSHA 400 PPM           |                 | 0.017 PPM    | 2       |         | 6   | AT-L-0V (GC/FID) | OV List A      |                                      | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.   |
| Ethyl Acetate #                  | 141-78-6    | 546AT #      | 546AT Badge                    | 2.25                   | OSHA 400 PPM           |                 | 0.52 PPM     | 2       |         | 6   | AT-L-0V (GC/FID) | OV List A      |                                      |  |
| Ethyl Acetate                    | 141-78-6    | 566AT        | 566AT Badge                    | 8.98                   | OSHA 400 PPM           |                 | 0.13 PPM     | 2       |         | 6   | AT-L-0V (GC/FID) | OV List A      |                                      |  |
| Ethyl Acetate                    | 141-78-6    | J6-001       | Tube, Charcoal 50-100mg Tube   | 0.10 L/min             | OSHA 400 PPM           |                 | 0.012 PPM    | 2       | 10      | 6   | AT-L-0V (GC/FID) | OV List A      |                                      |  |
| Ethyl Acetate                    | 141-78-6    | 525AT        | 525AT Badge                    | 71.6                   | OSHA 400 PPM           |                 | 0.016 PPM    | 2       |         | 6   | AT-L-0V (GC/FID) | OV List A      |                                      | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.   |
| Ethyl Acrylate                   | 140-88-5    | 521AT        | 521AT Badge                    | 58.8                   | OSHA 25 PPM            |                 | 0.0078 PPM   | 0.9     |         | 6   | AT-L-0V (GC/FID) | OV List A      |                                      |  |
| Ethyl Acrylate                   | 140-88-5    | 546AT        | 546AT Badge                    | 2.29                   | OSHA 25 PPM            |                 | 0.20 PPM     | 0.9     |         | 6   | AT-L-0V (GC/FID) | OV List A      |                                      |  |
| Ethyl Acrylate                   | 140-88-5    | 566AT        | 566AT Badge                    | 9.16                   | OSHA 25 PPM            |                 | 0.050 PPM    | 0.9     |         | 6   | AT-L-0V (GC/FID) | OV List A      |                                      |  |
| Ethyl Acrylate #                 | 140-88-5    | 525AT #      | 525AT Badge                    | 61.7                   | OSHA 25 PPM            |                 | 0.0074 PPM   | 0.9     |         | 6   | AT-L-0V (GC/FID) | OV List A      |                                      |  |
| Ethyl Alcohol                    | 64-17-5     | 521AT        | 521AT Badge                    | 79.4                   | OSHA 1000 PPM          |                 | 0.14 PPM     | 10      |         | 6   | AT-L-0V (GC/FID) | OV List A      | Ethanol                              | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide.  |
| Ethyl Alcohol #                  | 64-17-5     | 546AT #      | 546AT Badge                    | 3.39                   | OSHA 1000 PPM          |                 | 3.3 PPM      | 10      |         | 6   | AT-L-0V (GC/FID) | OV List A      | Ethanol                              |  |
| Ethyl Alcohol                    | 64-17-5     | 566AT        | 566AT Badge                    | 13.5                   | OSHA 1000 PPM          |                 | 0.82 PPM     | 10      |         | 6   | AT-L-0V (GC/FID) | OV List A      | Ethanol                              |  |
| Ethyl Alcohol                    | 64-17-5     | J6-009       | Tube, Charcoal 200-1400mg Tube | 0.10 L/min             | OSHA 1000 PPM          |                 | 0.11 PPM     | 10      | 10      | 6   | AT-L-0V (GC/FID) | OV List A      | Ethanol                              |  |
| Ethyl Alcohol                    | 64-17-5     | 525AT        | 525AT Badge                    | 83.4                   | OSHA 1000 PPM          |                 | 0.13 PPM     | 10      |         | 6   | AT-L-0V (GC/FID) | OV List A      | Ethanol                              | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide.  |
| Ethyl Ether                      | 60-29-7     | 546AT #      | 546AT Badge                    | 2.82                   | OSHA 400 PPM           |                 | 0.73 PPM     | 3       |         | 6   | AT-L-0V (GC/FID) | OV List A      | Diethyl Ether                        |  |
| Ethyl Ether                      | 60-29-7     | 566AT        | 566AT Badge                    | 11.3                   | OSHA 400 PPM           |                 | 0.18 PPM     | 3       |         | 6   | AT-L-0V (GC/FID) | OV List A      | Diethyl Ether                        |  |
| Ethyl Ether                      | 60-29-7     | 521AT        | 521AT Badge                    | 72.8                   | OSHA 400 PPM           |                 | 0.028 PPM    | 3       |         | 6   | AT-L-0V (GC/FID) | OV List A      | Diethyl Ether                        |  |
| Ethyl Ether                      | 60-29-7     | J6-009       | Tube, Charcoal 200-1400mg Tube | 0.10 L/min             | OSHA 400 PPM           |                 | 0.021 PPM    | 3       | 10      | 6   | AT-L-0V (GC/FID) | OV List A      | Diethyl Ether                        |  |
| Ethyl Ether                      | 60-29-7     | 525AT        | 525AT Badge                    | 76.4                   | OSHA 400 PPM           |                 | 0.027 PPM    | 3       |         | 6   | AT-L-0V (GC/FID) | OV List A      | Diethyl Ether                        |  |
| Ethyl Methacrylate               | 97-63-2     | 566AT #      | 566AT Badge                    | 8.41                   | OSHA 400 PPM           |                 | 0.053 PPM    | 1       |         | 6   | AT-L-0V (GC/FID) | OV List A      |                                      |  |
| Ethyl Methacrylate               | 97-63-2     | 521AT        | 521AT Badge                    | 55.1                   | OSHA 400 PPM           |                 | 0.0081 PPM   | 1       |         | 6   | AT-L-0V (GC/FID) | OV List A      |                                      |  |
| Ethyl Methacrylate               | 97-63-2     | 546AT        | 546AT Badge                    | 2.1                    | OSHA 400 PPM           |                 | 0.21 PPM     | 1       |         | 6   | AT-L-0V (GC/FID) | OV List A      |                                      |  |
| Ethyl Methacrylate               | 97-63-2     | 525AT        | 525AT Badge                    | 57.9                   | OSHA 400 PPM           |                 | 0.0077 PPM   | 1       |         | 6   | AT-L-0V (GC/FID) | OV List A      |                                      |  |
| Ethylbenzene                     | 75-04-7     | 585AT #      | 585AT Badge                    | 11.1                   | OSHA 10 PPM            |                 | 0.023 PPM    | 0.3     |         | 10  | MOD OSHA 60      | Amine          |                                      |  |
| Ethylbenzene                     | 100-41-4    | 521AT        | 521AT Badge                    | 60.6                   | OSHA 100 PPM           | NIOSH 125 PPM   | 0.0040 PPM   | 0.5     |         | 6   | AT-L-0V (GC/FID) | OV List A      |                                      | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.   |
| Ethylbenzene                     | 100-41-4    | 546AT        | 546AT Badge                    | 2.23                   | OSHA 100 PPM           | NIOSH 125 PPM   | 0.11 PPM     | 0.5     |         | 6   | AT-L-0V (GC/FID) | OV List A      |                                      | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.   |
| Ethylbenzene #                   | 100-41-4    | 566AT #      | 566AT Badge                    | 8.91                   | OSHA 100 PPM           | NIOSH 125 PPM   | 0.027 PPM    | 0.5     |         | 6   | AT-L-0V (GC/FID) | OV List A      |                                      | Sampling rate has been lab verified.   |
| Ethylbenzene                     | 100-41-4    | J6-001       | Tube, Charcoal 50-100mg Tube   | 0.10 L/min             | OSHA 100 PPM           | NIOSH 125 PPM   | 0.0024 PPM   | 0.5     | 10      | 6   | AT-L-0V (GC/FID) | OV List A      |                                      |  |
| Ethylbenzene                     | 100-41-4    | 525AT        | 525AT Badge                    | 63.6                   | OSHA 100 PPM           | NIOSH 125 PPM   | 0.0038 PPM   | 0.5     |         | 6   | AT-L-0V (GC/FID) | OV List A      |                                      | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.   |
| Ethylene Chlorohydrin            | 107-07-3    | 521AT        | 521AT Badge                    | 64.9                   | OSHA 5 PPM             |                 | 0.014 PPM    | 1.4     |         | 6   | AT-L-0V (GC/FID) | OV List A      |                                      |  |
| Ethylene Chlorohydrin            | 107-07-3    | 546AT        | 546AT Badge                    | 2.56                   | OSHA 5 PPM             |                 | 0.35 PPM     | 1.4     |         | 6   | AT-L-0V (GC/FID) | OV List A      |                                      |  |
| Ethylene Chlorohydrin            | 107-07-3    | 566AT        | 566AT Badge                    | 10.2                   | OSHA 5 PPM             |                 | 0.087 PPM    | 1.4     |         | 6   | AT-L-0V (GC/FID) | OV List A      |                                      |  |
| Ethylene Chlorohydrin #          | 107-07-3    | 525AT #      | 525AT Badge                    | 68.1                   | OSHA 5 PPM             |                 | 0.013 PPM    | 1.4     |         | 6   | AT-L-0V (GC/FID) | OV List A      |                                      |  |
| Ethylene Glycol Dimethyl Ether   | 110-71-4    | 521AT        | 521AT Badge                    | 62.4                   | OSHA 5 PPM             |                 | 0.0091 PPM   | 1       |         | 6   | AT-L-0V (GC/FID) | OV List A      | Dimethoxyethane, 1,2-Dimethoxyethane |  |
| Ethylene Glycol Dimethyl Ether   | 110-71-4    | 546AT        | 546AT Badge                    | 2.42                   | OSHA 5 PPM             |                 | 0.23 PPM     | 1       |         | 6   | AT-L-0V (GC/FID) | OV List A      | Dimethoxyethane, 1,2-Dimethoxyethane |  |
| Ethylene Glycol Dimethyl Ether # | 110-71-4    | 566AT #      | 566AT Badge                    | 9.66                   | OSHA 5 PPM             |                 | 0.058 PPM    | 1       |         | 6   | AT-L-0V (GC/FID) | OV List A      | Dimethoxyethane, 1,2-Dimethoxyethane |  |
| Ethylene Glycol Dimethyl Ether # | 110-71-4    | 525AT        | 525AT Badge                    | 65.5                   | OSHA 5 PPM             |                 | 0.0084 PPM   | 1       |         | 6   | AT-L-0V (GC/FID) | OV List A      | Dimethoxyethane, 1,2-Dimethoxyethane |  |
| Ethylene Oxide                   | 75-21-8     | J6-OR80-78   | Tube, OR80 78 HBr Treated Tube | 0.12 L/min             | OSHA 1 PPM             | OSHA STEL 5 PPM | 0.012 PPM    | 1       | 24      | 6   | MOD ASTM D5578   | Ethylene Oxide |                                      |  |
| Ethylene Oxide #                 | 75-21-8     | 555AT #      | 555AT Badge                    | 12.4                   | OSHA 1 PPM             | OSHA STEL 5 PPM | 0.011 PPM    | 0.12    |         | 6   | MOD ASTM D5578   | Ethylene Oxide |                                      | Sampling rate has been lab verified.   |
| Ethylendiamine #                 | 107-15-3    | 585AT #      | 585AT Badge                    | 9.59                   | OSHA 10 PPM            |                 | 0.027 PPM    | 0.3     |         | 10  | MOD OSHA 60      | Amine          |                                      | Sampling rate has been lab verified.   |
| Formaldehyde #                   | 50-00-0     | 571AT #      | 571AT Badge                    | 16.2                   | OSHA 0.75 PPM          | OSHA STEL 2 PPM | 0.010 PPM    | 0.1     |         | 6   | MOD OSHA 1007    | Aldehyde       | Formalin                             | For more information about using badges for formaldehyde from Formalin, go to <a href="https://www.assaytech.com/product/571-aldehyde-monitor/">https://www.assaytech.com/product/571-aldehyde-monitor/</a> Sampling rate has been lab verified.   |
| Formaldehyde                     | 50-00-0     | 581AT        | 581AT Badge                    | 124                    | OSHA 0.75 PPM          | OSHA STEL 2 PPM | 0.0014 PPM   | 0.1     |         | 6   | MOD OSHA 1007    | Aldehyde       | Formalin                             | The 580 badge has been replaced by the 581 badge. For more information about using badges for formaldehyde from Formalin, go to <a href="https://www.assaytech.com/product/571-aldehyde-monitor/">https://www.assaytech.com/product/571-aldehyde-monitor/</a> Sampling rate has been lab verified. |
| Formaldehyde                     | 50-00-0     | J6-119       | Tube, Silica Gel-DNPH Tube     | 0.10 L/min             | OSHA 0.75 PPM          | OSHA STEL 2 PPM | 0.0017 PPM   | 0.1     | 15      | 6   | MOD NIOSH 2016   | Aldehyde       | Formalin                             |  |
| Glutaraldehyde                   | 111-30-8    | J6-119       | Tube, Silica Gel-DNPH Tube     | 0.10 L/min             | OSHA 0.75 PPM          | OSHA STEL 2 PPM | 0.000041 PPM | 0.008   | 24      | 6   | MOD NIOSH 2532   | Aldehyde       | Cidex                                |  |
| Glutaraldehyde                   | 111-30-8    | 571AT        | 571AT Badge                    | 7.24                   | OSHA 0.75 PPM          | OSHA STEL 2 PPM | 0.00056 PPM  | 0.008   |         | 6   | MOD OSHA 64      | Aldehyde       | Cidex                                | Sampling rate has been lab verified.   |
| Glutaraldehyde                   | 111-30-8    | J5-9003      | Cassette, GFF 2-4-DNPH         | 1.0 L/min              | OSHA 0.75 PPM          | OSHA STEL 2 PPM | 0.00020 PPM  | 0.04    | 120     | 6   | MOD OSHA 64      | Aldehyde       | Cidex                                |  |
| Glutaraldehyde #                 | 111-30-8    | 581AT #      | 581AT Badge                    | 63.2                   | OSHA 0.75 PPM          | OSHA STEL 2 PPM | 0.00064 PPM  | 0.008   |         | 6   | MOD OSHA 64      | Aldehyde       | Cidex                                |  |
| Halothane #                      | 151-67-7    | 574AT #      | 574AT #                        | 8.7                    | OSHA 5 PPM             |                 | 0.12 PPM     | 4       |         | 6   | MOD OSHA 103     | Anesthetic Gas |                                      | Sampling rate has been lab verified.   |
| Halothane                        | 151-67-7    | J6-001       | Tube, Charcoal 50-100mg Tube   | 0.050 L/min            | OSHA 5 PPM             |                 | 0.021 PPM    | 4       | 12      | 6   | MOD OSHA 103     | Anesthetic Gas |                                      |  |
| HCFC-12332(E) #                  | 102687-65-0 | 549AT #      | 549AT Badge                    | 0.6                    | OSHA 500 PPM           |                 | 0.65 PPM     | 1       | 10      | 6   | AT-L-0V (GC/FID) | OV List A      | Freon                                | Sampling rate has been lab verified.   |
| Heptane                          | 142-82-5    | 521AT        | 521AT Badge                    | 53.6                   | OSHA 500 PPM           |                 | 0.0047 PPM   | 0.5     |         | 6   | AT-L-0V (GC/FID) | OV List A      |                                      | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.   |
| Heptane #                        | 142-82-5    | 546AT #      | 546AT Badge                    | 0.12                   | OSHA 500 PPM           |                 | 0.21 PPM     | 0.5     |         | 6   | AT-L-0V (GC/FID) | OV List A      |                                      | Sampling rate has been lab verified.   |
| Heptane                          | 142-82-5    | 566AT        | 566AT Badge                    | 8.54                   | OSHA 500 PPM           |                 | 0.030 PPM    | 0.5     |         | 6   | AT-L-0V (GC/FID) | OV List A      |                                      | Sampling rate has been lab verified.   |
| Heptane                          | 142-82-5    | J6-001       | Tube, Charcoal 50-100mg Tube   | 0.10 L/min             | OSHA 500 PPM           |                 | 0.0025 PPM   | 0.5     | 10      | 6   | AT-L-0V (GC/FID) | OV List A      |                                      |  |
| Heptane                          | 142-82-5    | 525AT        | 525AT Badge                    | 56.3                   | OSHA 500 PPM           |                 | 0.0045 PPM   | 0.5     |         | 6   | AT-L-0V (GC/FID) | OV List A      |                                      | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.   |
| 2-Heptanone                      | 110-43-0    | 546AT        | 546AT Badge                    | 2.14                   | OSHA 100 PPM           |                 | 0.15 PPM     | 0.7     |         | 6   | AT-L-0V (GC/FID) | OV List A      | Methyl amyl Ketone                   |  |
| 2-Heptanone #                    | 110-43-0    | 566AT #      | 566AT Badge                    | 8.58                   | OSHA 100 PPM           |                 | 0.036 PPM    | 0.7     |         | 6   | AT-L-0V (GC/FID) | OV List A      | Methyl amyl Ketone                   |  |
| 2-Heptanone                      | 110-43-0    | J6-001       | Tube, Charcoal 50-100mg Tube   | 0.10 L/min             | OSHA 100 PPM           |                 | 0.0031 PPM   | 0.7     | 10      | 6   | AT-L-0V (GC/FID) | OV List A      | Methyl amyl Ketone                   |  |
| 2-Heptanone                      | 110-43-0    | 521AT        | 521AT Badge                    | 51                     | OSHA 100 PPM           |                 | 0.0061 PPM   | 0.7     |         | 6   | AT-L-0V (GC/FID) | OV List A      | Methyl amyl Ketone                   |  |
| 2-Heptanone                      | 110-43-0    | 525AT        | 525AT Badge                    | 53.6                   | OSHA 100 PPM           |                 | 0.0028 PPM   | 0.7     |         | 6   | AT-L-0V (GC/FID) | OV List A      | Methyl amyl Ketone                   |  |
| Hexamethylene Diisocyanate       | 822-06-0    | J5-9002      | Cassette, GFF w/ 1_PP          | 1.0 L/min              | NIOSH CEILING 0.02 PPM |                 | 0.00024 PPM  | 0.8     | 240     | 10  | MOD OSHA 42      | Isoocyanates   | HDI                                  | Sample operface (See method)   |
| Hexanal #                        | 66-25-1     | 571AT #      | 571AT Badge                    | 6.48                   | OSHA 500 PPM           |                 | 0.24 PPM     | 3       |         | 10  | MOD EPA TO-11    | Aldehyde       | Hexanaldehyde                        |  |
| Hexanal #                        | 66-25-1     | 581AT        | 581AT Badge                    | 63                     | OSHA 500 PPM           |                 | 0.024 PPM    | 3       |         | 10  | MOD EPA TO-11    | Aldehyde       | Hexanaldehyde                        |  |
| N-Hexane                         | 110-54-3    | 521AT        | 521AT Badge                    | 58                     | OSHA 500 PPM           |                 | 0.0061 PPM   | 0.6     |         | 6   | AT-L-0V (GC/FID) | OV List A      |                                      | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.   |
| N-Hexane                         | 110-54-3    | 546AT        | 546AT Badge                    | 2.47                   | OSHA 500 PPM           |                 | 0.14 PPM     | 0.6     |         | 6   | AT-L-0V (GC/FID) | OV List A      |                                      | Sampling rate has been lab verified.   |
| N-Hexane #                       | 110-54-3    | 566AT #      | 566AT Badge                    | 9.88                   | OSHA 500 PPM           |                 | 0.036 PPM    | 0.6     |         | 6   | AT-L-0V (GC/FID) | OV List A      |                                      | Sampling rate has been lab verified.   |
| N-Hexane                         | 110-54-3    | J6-001       | Tube, Charcoal 50-100mg Tube   | 0.10 L/min             | OSHA 500 PPM           |                 | 0.0035 PPM   | 0.6     | 10      | 6   | AT-L-0V (GC/FID) | OV List A      |                                      |  |
| N-Hexane                         | 110-54-3    | 525AT        | 525AT Badge                    | 60.9                   | OSHA 500 PPM           |                 | 0.0058 PPM   | 0.6     |         | 6   | AT-L-0V (GC/FID) | OV List A      |                                      | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.   |
| 2-Hexanone #                     | 591-78-6    | 566AT #      | 566AT Badge                    | 9.16                   | OSHA 100 PPM           |                 | 0.028 PPM    | 0.5     |         | 6   | AT-L-0V (GC/FID) |                |                                      |  |

# Assay Technology Inc - Sampling Guide

All 521 and 580 badges have been replaced by the TraceAir II badges 525 and 581. Until the last lots of 521 and 525 have expired, they will be listed here.  
 Many of the NIOSH/OSHA methods have been modified. For a list of significant modifications, go to www.assaytech.com.  
 Information in this table can change without notice.

OSP = Organic Solvent Panel. See X525-25AT

# - Indicates the badge / chemical combination we recommend.

The 521 and 580 badges have been replaced by the TraceAir II badges 525 and 581. Until the last lots of 521 and 525 have expired, they will be listed here.

| Chemical                 | CAS No     | Media/Item #   | Media Description              | Sampling Rate (mL/min) | PEL                   | STEL                       | 8 hr Rpt Lmt   | RL (ug) | Vol (L) | TAT | Method Ref       | Test Group     | Synonyms                                 | Notes/Comments  |
|--------------------------|------------|----------------|--------------------------------|------------------------|-----------------------|----------------------------|----------------|---------|---------|-----|------------------|----------------|--|---|
| Iodomethane              | 74-88-4    | 566AT          | 566AT Badge                    | 7.4                    | OSHA 5 PPM            |                            | 0.48 PPM       | 10      | 10      | 6   | AT-L-OV (GC/FID) |                |  |   |
| Iron                     | 7439-89-6  | J8114K SMR TAB | Smear Tab                      |                        |                       |                            |                | 2       | 6       | 6   | MOD OSHA ID 125  | ICP            |  | J8114K: J5-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.   |
| Iron                     | 7439-89-6  | J537MCE208     | Cassette, MCE Cassette         | 2.0 L/min              |                       |                            | 0.0021 MG/M3   | 2       | 1000    | 6   | MOD OSHA ID 125  | ICP            |  |   |
| Iron(III) Oxide          | 1309-37-1  | J8114K SMR TAB | Smear Tab                      |                        |                       |                            |                | 3       | 6       | 6   | MOD OSHA ID 125  | ICP            |  | J8114K: J5-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.   |
| Iron(III) Oxide          | 1309-37-1  | J537MCE208     | Cassette, MCE Cassette         | 2.0 L/min              |                       |                            | 0.0031 MG/M3   | 3       | 1000    | 6   | MOD OSHA ID 125  | ICP            |  |   |
| Isosmyl Alcohol #        | 123-51-3   | 566AT #        | 566AT Badge                    | 9.77                   | OSHA 100 PPM          |                            | 0.053 PPM      | 0.9     | 6       | 6   | AT-L-OV (GC/FID) | OV List A      |  |   |
| Isosmyl Alcohol          | 123-51-3   | 546AT          | 546AT Badge                    | 2.44                   | OSHA 100 PPM          |                            | 0.21 PPM       | 0.9     | 6       | 6   | AT-L-OV (GC/FID) | OV List A      |  |   |
| Isosmyl Alcohol          | 123-51-3   | 521AT          | 521AT Badge                    | 73                     | OSHA 100 PPM          |                            | 0.0071 PPM     | 0.9     | 6       | 6   | AT-L-OV (GC/FID) | OV List A      |  |   |
| Isosmyl Alcohol          | 123-51-3   | 525AT          | 525AT Badge                    | 76.7                   | OSHA 100 PPM          |                            | 0.0058 PPM     | 0.9     | 6       | 6   | AT-L-OV (GC/FID) | OV List A      |  |   |
| Isobutyl Acetate         | 110-19-0   | 521AT          | 521AT Badge                    | 60.6                   | OSHA 150 PPM          |                            | 0.0072 PPM     | 1       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      |  |   |
| Isobutyl Acetate #       | 110-19-0   | 546AT #        | 546AT Badge                    | 2.13                   | OSHA 150 PPM          |                            | 0.21 PPM       | 1       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      |  |   |
| Isobutyl Acetate         | 110-19-0   | 566AT          | 566AT Badge                    | 8.5                    | OSHA 150 PPM          |                            | 0.052 PPM      | 1       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      |  |   |
| Isobutyl Acetate         | 110-19-0   | 525AT          | 525AT Badge                    | 63.6                   | OSHA 150 PPM          |                            | 0.0069 PPM     | 1       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      |  |   |
| Isobutyl Alcohol         | 78-83-1    | 521AT          | 521AT Badge                    | 64                     | OSHA 100 PPM          |                            | 0.0075 PPM     | 0.7     | 6       | 6   | AT-L-OV (GC/FID) | OV List A      | Isobutanol                               | Sampling rate has been lab verified.  |
| Isobutyl Alcohol         | 78-83-1    | 546AT          | 546AT Badge                    | 2.67                   | OSHA 100 PPM          |                            | 0.18 PPM       | 0.7     | 6       | 6   | AT-L-OV (GC/FID) | OV List A      | Isobutanol                               | Sampling rate has been lab verified.  |
| Isobutyl Alcohol #       | 78-83-1    | 566AT #        | 566AT Badge                    | 10.7                   | OSHA 100 PPM          |                            | 0.045 PPM      | 0.7     | 6       | 6   | AT-L-OV (GC/FID) | OV List A      | Isobutanol                               | Sampling rate has been lab verified.  |
| Isobutyl Alcohol         | 78-83-1    | J6-001         | Tube, Charcoal 50-100mg Tube   | 0.10 L/min             | OSHA 100 PPM          |                            | 0.0048 PPM     | 0.7     | 10      | 6   | AT-L-OV (GC/FID) | OV List A      | Isobutanol                               |   |
| Isobutyl Alcohol         | 78-83-1    | 525AT          | 525AT Badge                    | 67.2                   | OSHA 100 PPM          |                            | 0.0072 PPM     | 0.7     | 6       | 6   | AT-L-OV (GC/FID) | OV List A      | Isobutanol                               | Sampling rate has been lab verified.  |
| Isosulfurane #           | 26675-46-7 | 574AT #        | 574AT Badge                    | 7.87                   | CAL 2 PPM             |                            | 0.11 PPM       | 3       | 6       | 6   | MOD OSHA 103     | Anesthetic Gas | Forane                                   | Sampling rate has been lab verified.  |
| Isosulfurane             | 26675-46-7 | J6-001         | Tube, Charcoal 50-100mg Tube   | 0.050 L/min            | CAL 2 PPM             |                            | 0.012 PPM      | 3       | 12      | 6   | MOD OSHA 103     | Anesthetic Gas | Forane                                   |   |
| Isophorone               | 78-59-1    | J6-001         | Tube, Charcoal 50-100mg Tube   | 0.10 L/min             | OSHA 25 PPM           |                            | 0.0022 PPM     | 0.6     | 10      | 6   | AT-L-OV (GC/FID) | OV List B      |  |   |
| Isophorone               | 78-59-1    | 521AT          | 521AT Badge                    | 47.6                   | OSHA 25 PPM           |                            | 0.0046 PPM     | 0.6     | 6       | 6   | AT-L-OV (GC/FID) | OV List B      |  |   |
| Isophorone #             | 78-59-1    | 566AT #        | 566AT Badge                    | 7.8                    | OSHA 25 PPM           |                            | 0.028 PPM      | 0.6     | 6       | 6   | AT-L-OV (GC/FID) | OV List B      |  |   |
| Isophorone               | 78-59-1    | 546AT          | 546AT Badge                    | 1.95                   | OSHA 25 PPM           |                            | 0.11 PPM       | 0.6     | 6       | 6   | AT-L-OV (GC/FID) | OV List B      |  |   |
| Isophorone               | 78-59-1    | 525AT          | 525AT Badge                    | 50                     | OSHA 25 PPM           |                            | 0.0044 PPM     | 0.6     | 6       | 6   | AT-L-OV (GC/FID) | OV List B      |  |   |
| Isophorone Diisocyanate  | 4098-71-9  | J5-9002        | Cassette, GFF w/ 1, PP         |                        |                       | NIOSH STEL 0.02 PPM        | 0.000046 PPM   | 0.2     | 240     | 10  | MOD OSHA 42      | Isocyanates    | IPDI                                     | Sample operface (See method)  |
| Isopropyl Acetate #      | 108-21-4   | 546AT #        | 546AT Badge                    | 2.27                   | OSHA 250 PPM          |                            | 0.22 PPM       | 1       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      |  |   |
| Isopropyl Acetate        | 108-21-4   | 566AT          | 566AT Badge                    | 9.08                   | OSHA 250 PPM          |                            | 0.055 PPM      | 1       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      |  |   |
| Isopropyl Acetate        | 108-21-4   | J6-001         | Tube, Charcoal 50-100mg Tube   | 0.10 L/min             | OSHA 250 PPM          |                            | 0.0050 PPM     | 1       | 10      | 6   | AT-L-OV (GC/FID) | OV List A      |  |   |
| Isopropyl Acetate        | 108-21-4   | 521AT          | 521AT Badge                    | 52                     | OSHA 250 PPM          |                            | 0.0006 PPM     | 1       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      |  |   |
| Isopropyl Acetate        | 108-21-4   | 525AT          | 525AT Badge                    | 54.6                   | OSHA 250 PPM          |                            | 0.0091 PPM     | 1       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      |  |   |
| Isopropyl Alcohol        | 67-63-0    | 521AT          | 521AT Badge                    | 64                     | OSHA 400 PPM          |                            | 0.013 PPM      | 1       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      | IPA                                      | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.  |
| Isopropyl Alcohol #      | 67-63-0    | 546AT #        | 546AT Badge                    | 2.95                   | OSHA 400 PPM          |                            | 0.29 PPM       | 1       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      | IPA                                      | Sampling rate has been lab verified.  |
| Isopropyl Alcohol        | 67-63-0    | 566AT          | 566AT Badge                    | 11.8                   | OSHA 400 PPM          |                            | 0.072 PPM      | 1       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      | IPA                                      | Sampling rate has been lab verified.  |
| Isopropyl Alcohol        | 67-63-0    | J6-001         | Tube, Charcoal 50-100mg Tube   | 0.10 L/min             | OSHA 400 PPM          |                            | 0.0085 PPM     | 1       | 10      | 6   | AT-L-OV (GC/FID) | OV List A      | IPA                                      | Sampling rate has been lab verified.  |
| Isopropyl Alcohol        | 67-63-0    | 525AT          | 525AT Badge                    | 67.2                   | OSHA 400 PPM          |                            | 0.013 PPM      | 1       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      | IPA                                      | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.  |
| Lead                     | 7439-92-1  | J8114K SMR TAB | Smear Tab                      |                        | OSHA 0.05 MG/M3       |                            |                | 0.5     | 6       | 6   | MOD OSHA ID 125  | ICP            |  | J8114K: J5-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.   |
| Lead                     | 7439-92-1  | J8109K G WIPE  | Ghost Wipe                     |                        | OSHA 0.05 MG/M3       |                            |                | 0.5     | 6       | 6   | MOD OSHA ID 125  | ICP            |  | J8109K: J5-025 + J8054 (Ghost wipe with Vial). Ghost wipes are pre-moistened with DI water. Additional DI water is not necessary.   |
| Lead                     | 7439-92-1  | J537MCE208     | Cassette, MCE Cassette         | 2.0 L/min              | OSHA 0.05 MG/M3       |                            | 0.00052 MG/M3  | 0.5     | 1000    | 6   | MOD OSHA ID 125  | ICP            |  |   |
| D-Limonene               | 5989-27-5  | 521AT          | 521AT Badge                    | 45.6                   |                       |                            | 0.016 PPM      | 2       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      |  |   |
| D-Limonene               | 5989-27-5  | 546AT          | 546AT Badge                    | 1.96                   |                       |                            | 0.38 PPM       | 2       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      |  |   |
| D-Limonene #             | 5989-27-5  | 566AT #        | 566AT Badge                    | 7.86                   |                       |                            | 0.095 PPM      | 2       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      |  |   |
| D-Limonene               | 5989-27-5  | J6-001         | Tube, Charcoal 50-100mg Tube   | 0.10 L/min             |                       |                            | 0.0075 PPM     | 2       | 10      | 6   | AT-L-OV (GC/FID) | OV List A      |  |   |
| D-Limonene               | 5989-27-5  | 525AT          | 525AT Badge                    | 57.2                   |                       |                            | 0.013 PPM      | 2       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      |  |   |
| Magnesium                | 7439-95-4  | J8114K SMR TAB | Smear Tab                      |                        | OSHA 15 MG/M3         |                            |                | 0.5     | 6       | 6   | MOD OSHA ID 125  | ICP            |  | J8114K: J5-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.   |
| Magnesium                | 7439-95-4  | J537MCE208     | Cassette, MCE Cassette         | 2.0 L/min              | OSHA 15 MG/M3         |                            | 0.00052 MG/M3  | 0.5     | 1000    | 6   | MOD OSHA ID 125  | ICP            |  | J8114K: J5-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.   |
| Manganese                | 7439-96-5  | J8114K SMR TAB | Smear Tab                      |                        | OSHA CEILING 5 MG/M3  |                            |                | 0.5     | 6       | 6   | MOD OSHA ID 125  | ICP            |  | J8114K: J5-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.   |
| Manganese                | 7439-96-5  | J537MCE208     | Cassette, MCE Cassette         | 2.0 L/min              | OSHA CEILING 5 MG/M3  |                            | 0.00052 MG/M3  | 0.5     | 1000    | 6   | MOD OSHA ID 125  | ICP            |  | J8114K: J5-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.   |
| Manganese                | 101-68-8   | J5-9002        | Cassette, GFF w/ 1, PP         | 1.0 L/min              | OSHA CEILING 0.02 PPM |                            | 0.000081 PPM   | 0.4     | 240     | 10  | MOD OSHA 47      | Isocyanates    | Methylene Bisphenyl Isocyanate           | Sample operface (See method)  |
| Mercury                  | 7439-97-6  | 593AT #        | 593AT Badge                    | 14.9                   | OSHA 0.1 MG/M3        | CAL OSHA CEILING 0.1 MG/M3 | 0.00070 MG/M3  | 0.005   | 6       | 6   | AT CVAF          | Mercury        |  | Sampling rate has been lab verified.  |
| Mercury                  | 7439-97-6  | J537MCE208     | Cassette, MCE Cassette         | 2.0 L/min              | OSHA 0.1 MG/M3        | CAL OSHA CEILING 0.1 MG/M3 | 0.000021 MG/M3 | 0.02    | 1000    | 6   | AT CVAF          | Mercury        |  | Particulates Only. Order Kit J8114K: J5-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.                                    |
| Mercury                  | 7439-97-6  | J8114K SMR TAB | Smear Tab                      |                        | OSHA 0.1 MG/M3        | CAL OSHA CEILING 0.1 MG/M3 | 0.00021 MG/M3  | 0.02    | 6       | 6   | AT CVAF          | Mercury        |  | Particulates Only. Order Kit J8114K: J5-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.                                    |
| Mesitylene               | 108-67-8   | 546AT          | 546AT Badge                    | 2.09                   | OSHA 25 PPM           |                            | 0.1 PPM        | 5       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      | 1,3,5-Trimethylbenzene                   |   |
| Mesitylene #             | 108-67-8   | 566AT #        | 566AT Badge                    | 8.36                   | OSHA 25 PPM           |                            | 0.25 PPM       | 5       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      | 1,3,5-Trimethylbenzene                   |   |
| Mesitylene               | 108-67-8   | 521AT          | 521AT Badge                    | 56.7                   | OSHA 25 PPM           |                            | 0.037 PPM      | 5       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      | 1,3,5-Trimethylbenzene                   |   |
| Mesitylene               | 108-67-8   | 525AT          | 525AT Badge                    | 59.5                   | OSHA 25 PPM           |                            | 0.036 PPM      | 5       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      | 1,3,5-Trimethylbenzene                   |   |
| Methamphetamine          | 537-46-2   | J8109K G WIPE  | Ghost Wipe                     |                        |                       |                            |                | 1       | 10      | 6   | HPLC             |                |  | Buy wipe kit, J8110K. Kit contains a ghost wipe, wipe template, return vial, and the analysis cost. Price including the analysis: \$100. The analysis is not part of the lab's ISO 17025 accreditation. |
| 2-Methoxyethanol         | 109-86-4   | 521AT          | 521AT Badge                    | 56.6                   | OSHA 25 PPM           |                            | 0.026 PPM      | 2.2     | 6       | 6   | AT-L-OV (GC/FID) | OV List A      | Methyl Cellosolve                        |   |
| 2-Methoxyethanol #       | 109-86-4   | 566AT #        | 566AT Badge                    | 10.5                   | OSHA 25 PPM           |                            | 0.14 PPM       | 2.2     | 6       | 6   | AT-L-OV (GC/FID) | OV List A      | Methyl Cellosolve                        |   |
| 2-Methoxyethanol         | 109-86-4   | 546AT          | 546AT Badge                    | 2.63                   | OSHA 25 PPM           |                            | 0.56 PPM       | 2.2     | 6       | 6   | AT-L-OV (GC/FID) | OV List A      | Methyl Cellosolve                        |   |
| 2-Methoxyethanol         | 109-86-4   | 525AT          | 525AT Badge                    | 59.4                   | OSHA 25 PPM           |                            | 0.025 PPM      | 2.2     | 6       | 6   | AT-L-OV (GC/FID) | OV List A      | Methyl Cellosolve                        |   |
| 2-Methoxyethyl Acetate # | 110-49-6   | 566AT #        | 566AT Badge                    | 8                      | OSHA 25 PPM           |                            | 0.27 PPM       | 5       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      | Ethylene glycol monomethyl ether acetate |   |
| 2-Methoxyethyl Acetate   | 110-49-6   | 521AT          | 521AT Badge                    | 57                     | OSHA 25 PPM           |                            | 0.038 PPM      | 5       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      | Ethylene glycol monomethyl ether acetate |   |
| 2-Methoxyethyl Acetate   | 110-49-6   | 546AT          | 546AT Badge                    | 2                      | OSHA 25 PPM           |                            | 1.1 PPM        | 5       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      | Ethylene glycol monomethyl ether acetate |   |
| 2-Methoxyethyl Acetate   | 110-49-6   | 525AT          | 525AT Badge                    | 59.9                   | OSHA 25 PPM           |                            | 0.036 PPM      | 5       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      | Ethylene glycol monomethyl ether acetate |   |
| Methyl Acetate #         | 79-20-9    | 566AT #        | 566AT Badge                    | 10.3                   | OSHA 200 PPM          |                            | 0.13 PPM       | 2       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      |  |   |
| Methyl Acetate           | 79-20-9    | 521AT          | 521AT Badge                    | 66.8                   | OSHA 200 PPM          |                            | 0.021 PPM      | 2       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      |  |   |
| Methyl Acetate           | 79-20-9    | 525AT          | 525AT Badge                    | 70.1                   | OSHA 200 PPM          |                            | 0.020 PPM      | 2       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      |  |   |
| Methyl Acrylate          | 96-33-3    | 521AT          | 521AT Badge                    | 65.2                   | OSHA 10 PPM           |                            | 0.016 PPM      | 2       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      |  |   |
| Methyl Acrylate          | 96-33-3    | 546AT          | 546AT Badge                    | 2.47                   | OSHA 10 PPM           |                            | 0.48 PPM       | 2       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      |  |   |
| Methyl Acrylate #        | 96-33-3    | 566AT #        | 566AT Badge                    | 9.89                   | OSHA 10 PPM           |                            | 0.12 PPM       | 2       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      |  |   |
| Methyl Acrylate          | 96-33-3    | 525AT          | 525AT Badge                    | 68.5                   | OSHA 10 PPM           |                            | 0.017 PPM      | 2       | 6       | 6   | AT-L-OV (GC/FID) | OV List A      |  |   |
| Methyl Alcohol           | 67-56-1    | J6-010         | Tube, Silica Gel 75-150mg Tube | 0.10 L/min             | OSHA 200 PPM          |                            | 0.048 PPM      | 3       | 5       | 6   | MOD NIOSH 2000   | Methanol       | Methanol                                 | Use 566 badge for STEL. Use 546 for PEL. It is not recommended that Methyl Alcohol be collected   |

# Assay Technology Inc - Sampling Guide

# - Indicates the badge / chemical combination we recommend.

The 521 and 580 badges have been replaced by the TraceAir II badges 525 and 581. Until the last lots of 521 and 525 have expired, they will be listed here.

All 521 sampling rates are with both covers removed. Many of the NIOSH/OSHA methods have been modified. For a list of significant modifications, go to [www.assaytech.com](http://www.assaytech.com). Information in this table can change without notice.

OSP = Organic Solvent Panel. See X525-25AT

| Chemical                       | CAS No     | Media/Item #   | Media Description                       | Sampling Rate (mL/min) | PEL           | STEL                  | 8 hr Rpt Lmt  | RL (ug) | Vol (L) | TAT             | Method Ref       | Test Group    | Synonyms  | Notes/Comments   |
|--------------------------------|------------|----------------|---|------------------------|---------------|-----------------------|---------------|---------|---------|-----------------|------------------|---------------|---|--|
| Methyl Isobutyl Carbinol       | 108-11-2   | 546AT          | 546AT Badge                             | 2.27                   | OSHA 25 PPM   |                       | 0.22 PPM      | 1       | 6       | 6               | AT-L-OV (GC/FID) | OV List A     |   |  |
| Methyl Isobutyl Carbinol       | 108-11-2   | 525AT          | 525AT Badge                             | 55.2                   | OSHA 25 PPM   |                       | 0.0050 PPM    | 1       | 1       | 6               | AT-L-OV (GC/FID) | OV List A     |   |  |
| Methyl Isobutyl Ketone         | 108-10-1   | 521AT          | 521AT Badge                             | 63                     | OSHA 100 PPM  |                       | 0.0057 PPM    | 0.7     | 6       | 6               | AT-L-OV (GC/FID) | OV List A     | Hexone  | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.   |
| Methyl Isobutyl Ketone         | 108-10-1   | 546AT          | 546AT Badge                             | 2.29                   | OSHA 100 PPM  |                       | 0.16 PPM      | 0.7     | 6       | 6               | AT-L-OV (GC/FID) | OV List A     | Hexone  | Sampling rate has been lab verified.   |
| Methyl Isobutyl Ketone #       | 108-10-1   | 566AT #        | 566AT Badge                             | 9.16                   | OSHA 100 PPM  |                       | 0.039 PPM     | 0.7     | 6       | 6               | AT-L-OV (GC/FID) | OV List A     | Hexone  | Sampling rate has been lab verified.   |
| Methyl Isobutyl Ketone         | 108-10-1   | J6-001         | Tube, Charcoal 50-100mg Tube            | 0.10 L/min             | OSHA 100 PPM  |                       | 0.0036 PPM    | 0.7     | 10      | 6               | AT-L-OV (GC/FID) | OV List A     | Hexone  |  |
| Methyl Isobutyl Ketone         | 108-10-1   | 525AT          | 525AT Badge                             | 66.2                   | OSHA 100 PPM  |                       | 0.0054 PPM    | 0.7     | 6       | 6               | AT-L-OV (GC/FID) | OV List A     | Hexone  | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.   |
| Methyl Methacrylate            | 80-62-6    | 521AT          | 521AT Badge                             | 60                     | OSHA 100 PPM  |                       | 0.0085 PPM    | 1       | 6       | 6               | AT-L-OV (GC/FID) | OV List A     |   | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.   |
| Methyl Methacrylate            | 80-62-6    | 546AT          | 546AT Badge                             | 2.29                   | OSHA 100 PPM  |                       | 0.22 PPM      | 1       | 6       | 6               | AT-L-OV (GC/FID) | OV List A     |   | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.   |
| Methyl Methacrylate #          | 80-62-6    | 566AT #        | 566AT Badge                             | 9.16                   | OSHA 100 PPM  |                       | 0.056 PPM     | 1       | 6       | 6               | AT-L-OV (GC/FID) | OV List A     |   | Sampling rate has been lab verified.   |
| Methyl Methacrylate            | 80-62-6    | J6-001         | Tube, Charcoal 50-100mg Tube            | 0.10 L/min             | OSHA 100 PPM  |                       | 0.0051 PPM    | 1       | 10      | 6               | AT-L-OV (GC/FID) | OV List A     |   | Sampling rate has been lab verified.   |
| Methyl Methacrylate            | 80-62-6    | 525AT          | 525AT Badge                             | 63                     | OSHA 100 PPM  |                       | 0.0081 PPM    | 1       | 6       | 6               | AT-L-OV (GC/FID) | OV List A     |   | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.   |
| 1-Methyl-2-Pyrrolidione        | 872-50-4   | 521AT          | 521AT Badge                             | 60.9                   | CAL 1 PPM     |                       | 0.093 PPM     | 11      | 6       | 6               | AT-L-OV (GC/FID) | OV List B     | NMP, N-Methyl-2-Pyrrolidione                        |  |
| 1-Methyl-2-Pyrrolidione        | 872-50-4   | 546AT          | 546AT Badge                             | 2.33                   | CAL 1 PPM     |                       | 2.4 PPM       | 11      | 6       | 6               | AT-L-OV (GC/FID) | OV List B     | NMP, N-Methyl-2-Pyrrolidione                        |  |
| 1-Methyl-2-Pyrrolidione        | 872-50-4   | 566AT          | 566AT Badge                             | 9.31                   | CAL 1 PPM     |                       | 0.61 PPM      | 11      | 6       | 6               | AT-L-OV (GC/FID) | OV List B     | NMP, N-Methyl-2-Pyrrolidione                        |  |
| 1-Methyl-2-Pyrrolidione        | 872-50-4   | J6-001         | Tube, Charcoal 50-100mg Tube            | 0.10 L/min             | CAL 1 PPM     |                       | 0.057 PPM     | 11      | 10      | 6               | AT-L-OV (GC/FID) | OV List B     | NMP, N-Methyl-2-Pyrrolidione                        |  |
| 1-Methyl-2-Pyrrolidione #      | 872-50-4   | 525AT #        | 525AT Badge                             | 63.9                   | CAL 1 PPM     |                       | 0.088 PPM     | 11      | 6       | 6               | AT-L-OV (GC/FID) | OV List B     | NMP, N-Methyl-2-Pyrrolidione                        |  |
| Methylamine #                  | 74-89-5    | 585AT #        | 585AT Badge                             | 13.4                   | OSHA 10 PPM   |                       | 0.024 PPM     | 0.2     | 10      | MOD OSHA 60     | Amine            |               |   |  |
| Methylcyclohexane #            | 108-87-2   | 546AT #        | 546AT Badge                             | 2.43                   | OSHA 500 PPM  |                       | 0.11 PPM      | 0.5     | 6       | 6               | AT-L-OV (GC/FID) | OV List A     |   |  |
| Methylcyclohexane              | 108-87-2   | 566AT          | 566AT Badge                             | 9.32                   | OSHA 500 PPM  |                       | 0.028 PPM     | 0.5     | 6       | 6               | AT-L-OV (GC/FID) | OV List A     |   |  |
| Methylene Chloride             | 75-09-2    | 521AT          | 521AT Badge                             | 69.2                   | OSHA 25 PPM   | OSHA STEL 125 PPM     | 0.026 PPM     | 3       | 6       | 6               | AT-L-OV (GC/FID) | OV List A     | Dichloromethane                                     | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.   |
| Methylene Chloride             | 75-09-2    | 546AT          | 546AT Badge                             | 2.39                   | OSHA 25 PPM   | OSHA STEL 125 PPM     | 0.75 PPM      | 3       | 6       | 6               | AT-L-OV (GC/FID) | OV List A     | Dichloromethane                                     | Sampling rate has been lab verified.   |
| Methylene Chloride #           | 75-09-2    | 566AT #        | 566AT Badge                             | 9.54                   | OSHA 25 PPM   | OSHA STEL 125 PPM     | 0.19 PPM      | 3       | 6       | 6               | AT-L-OV (GC/FID) | OV List A     | Dichloromethane                                     | Sampling rate has been lab verified.   |
| Methylene Chloride             | 75-09-2    | J6-001         | Tube, Charcoal 50-100mg Tube            | 0.10 L/min             | OSHA 25 PPM   | OSHA STEL 125 PPM     | 0.018 PPM     | 3       | 10      | 6               | AT-L-OV (GC/FID) | OV List A     | Dichloromethane                                     |  |
| Methylene Chloride             | 75-09-2    | 525AT          | 525AT Badge                             | 72.7                   | OSHA 25 PPM   | OSHA STEL 125 PPM     | 0.025 PPM     | 3       | 6       | 6               | AT-L-OV (GC/FID) | OV List A     | Dichloromethane                                     | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.   |
| 2-Methylpentane                | 107-83-5   | 566AT          | 566AT Badge                             | 9.9                    |               |                       | 0.12 PPM      | 2       | 6       | 6               | AT-L-OV (GC/FID) | OV List B     |   |  |
| 2-Methylpentane                | 107-83-5   | 546AT          | 546AT Badge                             | 2.5                    |               |                       | 0.47 PPM      | 2       | 6       | 6               | AT-L-OV (GC/FID) | OV List B     |   |  |
| Molybdenum                     | 7439-98-7  | J8114K SMR TAB | Smear Tab                               |                        | OSHA 5 MG/M3  |                       |               | 0.5     | 6       | MOD OSHA ID 125 | ICP              |               |   | J8114K JS-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.   |
| Molybdenum                     | 7439-98-7  | J537MCEZ08     | Cassette, MCE Cassette                  | 2.0 L/min              | OSHA 5 MG/M3  |                       | 0.0052 MG/M3  | 0.5     | 1000    | 6               | MOD OSHA ID 125  | ICP           |   |  |
| Norsalf #                      | 110-21-8   | 585AT #        | 585AT Badge                             | 7.92                   | OSHA 20 PPM   | NIOSH STEL 30 PPM     | 0.15 PPM      | 2       | 10      | MOD OSHA 60     | Amine            |               |   | Sampling rate has been lab verified.   |
| Naphthalene                    | 91-20-3    | 521AT          | 521AT Badge                             | 55.6                   | OSHA 10 PPM   | NIOSH STEL 15 PPM     | 0.046 PPM     | 6.5     | 6       | 6               | AT-L-OV (GC/FID) | OV List A     |   | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.   |
| Naphthalene                    | 91-20-3    | 546AT          | 546AT Badge                             | 2.03                   | OSHA 10 PPM   | NIOSH STEL 15 PPM     | 1.3 PPM       | 6.5     | 6       | 6               | AT-L-OV (GC/FID) | OV List A     |   | Sampling rate has been lab verified.   |
| Naphthalene                    | 91-20-3    | 566AT          | 566AT Badge                             | 8.1                    | OSHA 10 PPM   | NIOSH STEL 15 PPM     | 0.32 PPM      | 6.5     | 6       | 6               | AT-L-OV (GC/FID) | OV List A     |   | Sampling rate has been lab verified.   |
| Naphthalene                    | 91-20-3    | J6-001         | Tube, Charcoal 50-100mg Tube            | 0.10 L/min             | OSHA 10 PPM   | NIOSH STEL 15 PPM     | 0.026 PPM     | 6.5     | 10      | 6               | AT-L-OV (GC/FID) | OV List A     |   |  |
| Naphthalene #                  | 91-20-3    | 525AT #        | 525AT Badge                             | 58.4                   | OSHA 10 PPM   | NIOSH STEL 15 PPM     | 0.044 PPM     | 6.5     | 6       | 6               | AT-L-OV (GC/FID) | OV List A     |   | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.   |
| Nickel                         | 7440-02-0  | J8114K SMR TAB | Smear Tab                               |                        | OSHA 1 MG/M3  |                       |               | 0.5     | 6       | MOD OSHA ID 125 | ICP              |               |   | J8114K JS-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.   |
| Nickel                         | 7440-02-0  | J537MCEZ08     | Cassette, MCE Cassette                  | 2.0 L/min              | OSHA 1 MG/M3  |                       | 0.00052 MG/M3 | 0.5     | 1000    | 6               | MOD OSHA ID 125  | ICP           |   |  |
| Nitric Acid                    | 7697-37-2  | J6-010-03      | Tube, Silica Gel Washed 200-1400mg Tube | 0.20 L/min             | OSHA 2 PPM    |                       | 0.020 PPM     | 5       | 100     | 6               | MOD NIOSH 7903   | Acid          | HN03  |  |
| Nitrogen Dioxide #             | 10102-44-0 | 594AT #        | 594AT Badge                             | 22.3                   |               | OSHA CEILING 5 PPM    | 0.025 PPM     | 0.5     | 6       | MOD OSHA 182    | Nitrogen Dioxide |               |   | Sampling rate has been lab verified.   |
| Nitrous Oxide #                | 10024-97-2 | 575AT #        | 575AT Badge                             | 0.88                   | NIOSH 25 PPM  |                       | 0.53 PPM      | 0.4     | 6       | AT SOP L575     | Nitrous Oxide    |               |   | Sampling rate has been lab verified.   |
| Nonane #                       | 111-84-2   | 546AT #        | 546AT Badge                             | 2.02                   |               |                       | 0.098 PPM     | 0.5     | 6       | 6               | AT-L-OV (GC/FID) | OV List A     |   |  |
| Nonane                         | 111-84-2   | 566AT          | 566AT Badge                             | 8.09                   |               |                       | 0.023 PPM     | 0.5     | 6       | 6               | AT-L-OV (GC/FID) | OV List A     |   |  |
| Nonane                         | 111-84-2   | 521AT          | 521AT Badge                             | 44.6                   |               |                       | 0.0045 PPM    | 0.5     | 6       | 6               | AT-L-OV (GC/FID) | OV List A     |   |  |
| Nonane                         | 111-84-2   | 525AT          | 525AT Badge                             | 46.8                   |               |                       | 0.0042 PPM    | 0.5     | 6       | 6               | AT-L-OV (GC/FID) | OV List A     |   |  |
| Octane                         | 111-65-9   | 521AT          | 521AT Badge                             | 42.6                   | OSHA 500 PPM  | NIOSH CEILING 385 PPM | 0.021 PPM     | 2       | 6       | 6               | AT-L-OV (GC/FID) | OV List A     |   |  |
| Octane #                       | 111-65-9   | 546AT #        | 546AT Badge                             | 2.14                   | OSHA 500 PPM  | NIOSH CEILING 385 PPM | 0.42 PPM      | 2       | 6       | 6               | AT-L-OV (GC/FID) | OV List A     |   |  |
| Octane                         | 111-65-9   | 566AT          | 566AT Badge                             | 8.58                   | OSHA 500 PPM  | NIOSH CEILING 385 PPM | 0.10 PPM      | 2       | 6       | 6               | AT-L-OV (GC/FID) | OV List A     |   |  |
| Octane                         | 111-65-9   | J6-001         | Tube, Charcoal 50-100mg Tube            | 0.10 L/min             | OSHA 500 PPM  | NIOSH CEILING 385 PPM | 0.0089 PPM    | 2       | 10      | 6               | AT-L-OV (GC/FID) | OV List A     |   |  |
| Octane                         | 111-65-9   | 525AT          | 525AT Badge                             | 44.7                   | OSHA 500 PPM  | NIOSH CEILING 385 PPM | 0.020 PPM     | 2       | 6       | 6               | AT-L-OV (GC/FID) | OV List A     |   |  |
| Oil Mist (Gravimetric)         | 8012-95-1  | J537PVCW50     | Cassette, PVC Pre-wt Cassette           | 2.0 L/min              | OSHA 5 MG/M3  | NIOSH STEL 10 MG/M3   | 0.021 MG/M3   | 20      | 300     | 6               | MOD NIOSH 500    | Gravimetric   |   |  |
| Oil Mist (IR)                  | 8012-95-1  | J537PVCZ50     | Cassette, PVC Cassette                  | 2.0 L/min              | OSHA 5 MG/M3  | NIOSH STEL 10 MG/M3   |               | 500     | 10      | MOD NIOSH 5026  | Gravimetric      |               |   | Bulk reference material required. Recommended sent prior to sampling to ensure method is applicable. If sampling will occur before the bulk material can be tested, use PVC-PW so total particulate (NIOSH 500) can be used if the oil is insoluble. For aqueous based metal working fluid, use method NIOSH 5524. |
| Organic Solvent Panel          | 7705-25    | 521AT          | 521AT Badge                             |                        |               |                       |               |         | 6       | 6               | AT-L-OV (GC/FID) | OV List Panel |   | Organic Solvent Panel (OSP) Search "OSP" for list of chemicals.  |
| Organic Solvent Panel          | 7705-25    | 525AT          | 525AT Badge                             |                        |               |                       |               |         | 6       | 6               | AT-L-OV (GC/FID) | OV List Panel |   | Organic Solvent Panel (OSP) Search "OSP" for list of chemicals.  |
| Ozone #                        | 10028-15-6 | 586AT #        | 586AT Badge                             | 15.2                   | OSHA 0.1 PPM  | NIOSH CEILING 0.1 PPM | 0.0070 PPM    | 0.1     | 6       | MOD OSHA 214    | Ozone            |               |   | Not recommended for STEL monitoring. Sampling rate has been lab verified.  |
| 1,1,1,3,3-Pentafluoropropane # | 460-73-1   | 549AT #        | 549AT Badge                             | 0.61                   |               |                       | 0.62 PPM      | 1       | 10      | 6               | AT-L-OV (GC/FID) | Freon         |   | Not validated on the 546, 566, 525 nor 521 badges. Sampling rate has been lab verified.  |
| Pentane                        | 109-66-0   | 521AT          | 521AT Badge                             | 66.6                   | OSHA 1000 PPM | NIOSH STEL 610 PPM    | 0.0064 PPM    | 0.6     | 6       | 6               | AT-L-OV (GC/FID) | OV List A     |   |  |
| Pentane #                      | 109-66-0   | 546AT #        | 546AT Badge                             | 2.7                    | OSHA 1000 PPM | NIOSH STEL 610 PPM    | 0.16 PPM      | 0.6     | 6       | 6               | AT-L-OV (GC/FID) | OV List A     |   |  |
| Pentane                        | 109-66-0   | 566AT          | 566AT Badge                             | 10.8                   | OSHA 1000 PPM | NIOSH STEL 610 PPM    | 0.039 PPM     | 0.6     | 6       | 6               | AT-L-OV (GC/FID) | OV List A     |   |  |
| Pentane                        | 109-66-0   | 525AT          | 525AT Badge                             | 69.9                   | OSHA 1000 PPM | NIOSH STEL 610 PPM    | 0.0061 PPM    | 0.6     | 6       | 6               | AT-L-OV (GC/FID) | OV List A     |   |  |
| 2-Pentanone #                  | 107-87-9   | 546AT #        | 546AT Badge                             | 2.47                   | OSHA 200 PPM  |                       | 0.17 PPM      | 0.7     | 6       | 6               | AT-L-OV (GC/FID) | OV List A     | Methyl Propyl Ketone                                |  |
| 2-Pentanone                    | 107-87-9   | 566AT          | 566AT Badge                             | 9.89                   | OSHA 200 PPM  |                       | 0.043 PPM     | 0.7     | 6       | 6               | AT-L-OV (GC/FID) | OV List A     | Methyl Propyl Ketone                                |  |
| 2-Pentanone                    | 107-87-9   | J6-001         | Tube, Charcoal 50-100mg Tube            | 0.10 L/min             | OSHA 200 PPM  |                       | 0.0041 PPM    | 0.7     | 10      | 6               | AT-L-OV (GC/FID) | OV List A     | Methyl Propyl Ketone                                |  |
| 2-Pentanone                    | 107-87-9   | 525AT          | 525AT Badge                             | 66.6                   | OSHA 200 PPM  |                       | 0.0062 PPM    | 0.7     | 6       | 6               | AT-L-OV (GC/FID) | OV List A     | Methyl Propyl Ketone                                |  |
| Perchloroethylene              | 127-18-4   | 521AT          | 521AT Badge                             | 127.18                 | OSHA 100 PPM  | OSHA CEILING 200 PPM  | 0.0097 PPM    | 2       | 6       | 6               | AT-L-OV (GC/FID) | OV List A     | Tetrachloroethylene, PCE                            | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.   |
| Perchloroethylene              | 127-18-4   | 546AT          | 546AT Badge                             | 1.78                   | OSHA 100 PPM  | OSHA CEILING 200 PPM  | 0.35 PPM      | 2       | 6       | 6               | AT-L-OV (GC/FID) | OV List A     | Tetrachloroethylene, PCE                            | Sampling rate has been lab verified.   |
| Perchloroethylene #            | 127-18-4   | 566AT #        | 566AT Badge                             | 7.11                   | OSHA 100 PPM  | OSHA CEILING 200 PPM  | 0.086 PPM     | 2       | 6       | 6               | AT-L-OV (GC/FID) | OV List A     | Tetrachloroethylene, PCE                            | Sampling rate has been lab verified.   |
| Perchloroethylene              | 127-18-4   | J6-001         | Tube, Charcoal 50-100mg Tube            | 0.10 L/min             | OSHA 100 PPM  | OSHA CEILING 200 PPM  | 0.0061 PPM    | 2       | 10      | 6               | AT-L-OV (GC/FID) | OV List A     | Tetrachloroethylene, PCE                            |  |
| Perchloroethylene              | 127-18-4   | 525AT          | 525AT Badge                             | 66.4                   | OSHA 100 PPM  | OSHA CEILING 200 PPM  | 0.0093 PPM    | 2       | 6       | 6               | AT-L-OV (GC/FID) | OV List A     | Tetrachloroethylene, PCE                            | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.   |
| PGMEA                          | 108-65-6   | 546AT          | 546AT Badge                             | 2                      |               |                       | 0.19 PPM      | 1       | 6       | 6               | AT-L-OV (GC/FID) | OV List A     | Propylene glycol monomethyl ether acetate, 1-Methox |  |
| PGMEA #                        | 108-65-6   | 566AT #        | 566AT Badge                             | 7.98                   |               |                       | 0.048 PPM     | 1       | 6       | 6               | AT-L-OV (GC/FID) | OV List A     | Propylene glycol monomethyl ether acetate, 1-Methox | Sampling rate has been lab verified.   |
| PGMEA                          | 108-65-6   | J6-001         | Tube, Charcoal 50-100mg Tube            | 0.10 L/min             |               |                       | 0.0039 PPM    | 1       | 10      | 6               | AT-L-OV (GC/FID) | OV List A     | Propylene glycol monomethyl ether acetate, 1-Methox |  |
| PGMEA                          | 108-65-6   | 521AT          | 521AT Badge                             | 55                     |               |                       |               |         |         |                 |                  |               |   |  |

# Assay Technology Inc - Sampling Guide

All 521 sampling rates are with both covers removed.  
 Many of the NIOSH/OSHA methods have been modified. For a list of significant modifications, go to www.assaytech.com.  
 Information in this table can change without notice.

OSP = Organic Solvent Panel. See X525-25AT

# - Indicates the badge / chemical combination we recommend.

The 521 and 580 badges have been replaced by the TraceAir II badges 525 and 581. Until the last lots of 521 and 525 have expired, they will be listed here.

| Chemical                         | CAS No     | Media/Item #   | Media Description                       | Sampling Rate (mL/min) | OSHA PEL            | STEL                     | 8 hr Rpt Lmt  | RL (ug) | Vol (L) | TAT  | Method Ref       | Test Group      | Synonyms                       | Notes/Comments   |
|----------------------------------|------------|----------------|---|------------------------|---------------------|--------------------------|---------------|---------|---------|------|------------------|-----------------|--------------------------------|--|
| Phenyl Ether #                   | 101-84-8   | 525AT #        | 525AT Badge                             |                        | 43.7                |                          | 0.0052 PPM    | 0.9     |         | 6    | AT L-OV (GC/FID) | OV List B       |                                |  |
| Phosphoric Acid                  | 7664-38-2  | J6-010-03      | Tube, Silica Gel Washed 200-1400mg Tube | 0.20 L/min             | OSHA 1 MG/M3        |                          | 0.052 MG/M3   | 5       | 100     | 6    | MOD NIOSH 7903   | ASGE            | H3PO4                          |  |
| O-Phthalaldehyde                 | 643-79-8   | 571AT          | 571AT Badge                             | 6.18                   | JOHNSON 0.019 MG/M3 | J & J 0.148 MG/M3        | 0.0027 MG/M3  | 0.008   |         | 10   | MOD OSHA 64      | OPA             | Cidex OPA                      | OPA can not be collected with other aldehydes. The PEL and STEL limits listed are Johnson & Johnson recommendations. Sampling rate has been lab verified.  |
| O-Phthalaldehyde #               | 643-79-8   | 581AT #        | 581AT Badge                             | 57.5                   | JOHNSON 0.019 MG/M3 | J & J 0.148 MG/M3        | 0.00029 MG/M3 | 0.008   |         | 10   | MOD OSHA 64      | OPA             | Cidex OPA                      | OPA can not be collected with other aldehydes. The PEL and STEL limits listed are Johnson & Johnson recommendations.   |
| Alpha-Pinene                     | 80-56-8    | 521AT          | 521AT Badge                             | 54.5                   |                     |                          | 0.0055 PPM    | 0.8     |         | 6    | AT L-OV (GC/FID) | OV List C       |                                |  |
| Alpha-Pinene                     | 80-56-8    | 546AT          | 546AT Badge                             | 1.96                   |                     |                          | 0.15 PPM      | 0.8     |         | 6    | AT L-OV (GC/FID) | OV List C       |                                |  |
| Alpha-Pinene #                   | 80-56-8    | 566AT #        | 566AT Badge                             | 7.86                   |                     |                          | 0.038 PPM     | 0.8     |         | 6    | AT L-OV (GC/FID) | OV List C       |                                |  |
| Alpha-Pinene                     | 80-56-8    | 525AT          | 525AT Badge                             | 57.2                   |                     |                          | 0.0052 PPM    | 0.8     |         | 6    | AT L-OV (GC/FID) | OV List C       |                                |  |
| Beta-Pinene                      | 127-91-3   | 521AT          | 521AT Badge                             | 54.5                   |                     |                          | 0.0055 PPM    | 0.8     |         | 6    | AT L-OV (GC/FID) | OV List C       |                                |  |
| Beta-Pinene                      | 127-91-3   | 546AT          | 546AT Badge                             | 1.96                   |                     |                          | 0.15 PPM      | 0.8     |         | 6    | AT L-OV (GC/FID) | OV List C       |                                |  |
| Beta-Pinene #                    | 127-91-3   | 566AT #        | 566AT Badge                             | 7.86                   |                     |                          | 0.038 PPM     | 0.8     |         | 6    | AT L-OV (GC/FID) | OV List C       |                                |  |
| Beta-Pinene                      | 127-91-3   | 525AT          | 525AT Badge                             | 57.2                   |                     |                          | 0.0052 PPM    | 0.8     |         | 6    | AT L-OV (GC/FID) | OV List C       |                                |  |
| Potassium                        | 2023695    | J6114K SMR TAB | Smear Tab                               |                        |                     |                          |               |         |         | 10   | 6                | MOD OSHA ID 125 | ICP                            | J6114K: JS-024 + J8054 [Smear Tab with Vial]. Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.  |
| Potassium                        | 2023695    | J537MCE208     | Cassette, MCE Cassette                  | 2.0 L/min              | OSHA 1 MG/M3        |                          | 0.0026 MG/M3  | 2.5     | 1000    | 6    | MOD OSHA ID 125  | ICP             |                                |  |
| Potassium Hydroxide              | 1310-58-3  | J537MCE208     | Cassette, MCE Cassette                  | 2.0 L/min              |                     |                          | 0.016 MG/M3   | 15      | 1000    | 6    | MOD OSHA ID 125  | ICP             |                                |  |
| 1-Propanol                       | 71-23-8    | 521AT          | 521AT Badge                             | 78.6                   | OSHA 200 PPM        | NIOSH CEILING 250 PPM    | 0.017 PPM     | 1.6     |         | 6    | AT L-OV (GC/FID) | OV List A       | n-Propanol, Propyl Alcohol     |  |
| 1-Propanol #                     | 71-23-8    | 546AT #        | 546AT Badge                             | 2.96                   | OSHA 200 PPM        | NIOSH CEILING 250 PPM    | 0.46 PPM      | 1.6     |         | 6    | AT L-OV (GC/FID) | OV List A       | n-Propanol, Propyl Alcohol     |  |
| 1-Propanol                       | 71-23-8    | 566AT          | 566AT Badge                             | 11.8                   | OSHA 200 PPM        | NIOSH CEILING 250 PPM    | 0.11 PPM      | 1.6     |         | 6    | AT L-OV (GC/FID) | OV List A       | n-Propanol, Propyl Alcohol     |  |
| 1-Propanol                       | 71-23-8    | J6-001         | Tube, Charcoal 50-100mg Tube            | 0.14 L/min             | OSHA 200 PPM        | NIOSH CEILING 250 PPM    | 0.014 PPM     | 1.6     | 10      | 6    | AT L-OV (GC/FID) | OV List A       | n-Propanol, Propyl Alcohol     |  |
| 1-Propanol                       | 71-23-8    | 525AT          | 525AT Badge                             | 82.5                   | OSHA 200 PPM        | NIOSH CEILING 250 PPM    | 0.016 PPM     | 1.6     |         | 6    | AT L-OV (GC/FID) | OV List A       | n-Propanol, Propyl Alcohol     |  |
| Propionaldehyde #                | 123-38-6   | 571AT #        | 571AT Badge                             | 9.58                   |                     |                          | 0.0092 PPM    | 0.1     |         | 10   | MOD EPA TO-11    | Aldehyde        |                                |  |
| Propionaldehyde                  | 123-38-6   | 581AT          | 581AT Badge                             | 76.5                   |                     |                          | 0.0011 PPM    | 0.1     |         | 10   | MOD EPA TO-11    | Aldehyde        |                                |  |
| Propyl Acetate #                 | 109-60-4   | 546AT          | 546AT Badge                             | 2.27                   | OSHA 200 PPM        |                          | 0.22 PPM      | 1       |         | 6    | AT L-OV (GC/FID) | OV List A       |                                |  |
| Propyl Acetate                   | 109-60-4   | 566AT          | 566AT Badge                             | 9.08                   | OSHA 200 PPM        |                          | 0.055 PPM     | 1       |         | 6    | AT L-OV (GC/FID) | OV List A       |                                |  |
| Propyl Acetate                   | 109-60-4   | 521AT          | 521AT Badge                             | 60.8                   | OSHA 200 PPM        |                          | 0.0082 PPM    | 1       |         | 6    | AT L-OV (GC/FID) | OV List A       |                                |  |
| Propyl Acetate                   | 109-60-4   | 525AT          | 525AT Badge                             | 63.8                   | OSHA 200 PPM        |                          | 0.0078 PPM    | 1       |         | 6    | AT L-OV (GC/FID) | OV List A       |                                |  |
| N-Propyl Bromide                 | 106-94-5   | 521AT          | 521AT Badge                             | 56.3                   |                     |                          | 0.015 PPM     | 2       |         | 6    | AT L-OV (GC/FID) | OV List A       | Propyl Bromide, 1-Bromopropane |  |
| N-Propyl Bromide                 | 106-94-5   | 546AT          | 546AT Badge                             | 2.07                   |                     |                          | 0.40 PPM      | 2       |         | 6    | AT L-OV (GC/FID) | OV List A       | Propyl Bromide, 1-Bromopropane |  |
| N-Propyl Bromide                 | 106-94-5   | 566AT          | 566AT Badge                             | 8.26                   |                     |                          | 0.10 PPM      | 2       |         | 6    | AT L-OV (GC/FID) | OV List A       | Propyl Bromide, 1-Bromopropane |  |
| N-Propyl Bromide                 | 106-94-5   | J6-001         | Tube, Charcoal 50-100mg Tube            |                        |                     |                          |               | 2       |         | 6    | AT L-OV (GC/FID) | OV List A       | Propyl Bromide, 1-Bromopropane |  |
| N-Propyl Bromide #               | 106-94-5   | 525AT #        | 525AT Badge                             | 59.1                   |                     |                          | 0.014 PPM     | 2       |         | 6    | AT L-OV (GC/FID) | OV List A       | Propyl Bromide, 1-Bromopropane |  |
| Propylene Glycol Methyl Ether    | 107-98-2   | 546AT          | 546AT Badge                             | 2.42                   |                     |                          | 0.47 PPM      | 2       |         | 6    | AT L-OV (GC/FID) | OV List A       | 1-Methoxy-2-propanol           |  |
| Propylene Glycol Methyl Ether #  | 107-98-2   | 566AT #        | 566AT Badge                             | 9.66                   |                     |                          | 0.12 PPM      | 2       |         | 6    | AT L-OV (GC/FID) | OV List A       | 1-Methoxy-2-propanol           |  |
| Propylene Glycol Methyl Ether    | 107-98-2   | J6-001         | Tube, Charcoal 50-100mg Tube            | 0.10 L/min             |                     |                          | 0.011 PPM     | 2       | 10      | 6    | AT L-OV (GC/FID) | OV List A       | 1-Methoxy-2-propanol           |  |
| Propylene Glycol Methyl Ether    | 107-98-2   | 521AT          | 521AT Badge                             | 60                     |                     |                          | 0.019 PPM     | 2       |         | 6    | AT L-OV (GC/FID) | OV List A       | 1-Methoxy-2-propanol           |  |
| Propylene Glycol Methyl Ether    | 107-98-2   | 525AT          | 525AT Badge                             | 63                     |                     |                          | 0.018 PPM     | 2       |         | 6    | AT L-OV (GC/FID) | OV List A       | 1-Methoxy-2-propanol           |  |
| Propylene Oxide #                | 75-56-9    | 546AT #        | 546AT Badge                             | 3.01                   | OSHA 100 PPM        |                          | 0.29 PPM      | 1       |         | 6    | AT L-OV (GC/FID) | OV List A       |                                |  |
| Propylene Oxide                  | 75-56-9    | 566AT          | 566AT Badge                             | 12.1                   | OSHA 100 PPM        |                          | 0.071 PPM     | 1       |         | 6    | AT L-OV (GC/FID) | OV List A       |                                |  |
| Propylene Oxide                  | 75-56-9    | J6-001         | Tube, Charcoal 50-100mg Tube            | 0.10 L/min             | OSHA 100 PPM        |                          | 0.0088 PPM    | 1       | 10      | 6    | AT L-OV (GC/FID) | OV List A       |                                |  |
| Propylene Oxide                  | 75-56-9    | 521AT          | 521AT Badge                             | 72.9                   | OSHA 100 PPM        |                          | 0.012 PPM     | 1       |         | 6    | AT L-OV (GC/FID) | OV List A       |                                |  |
| Propylene Oxide                  | 75-56-9    | 525AT          | 525AT Badge                             | 76.5                   | OSHA 100 PPM        |                          | 0.011 PPM     | 1       |         | 6    | AT L-OV (GC/FID) | OV List A       |                                |  |
| Propylamine #                    | 75-55-8    | 585AT #        | 585AT Badge                             | 10                     | OSHA 2 PPM          |                          | 0.018 PPM     | 0.2     |         | 10   | MOD OSHA 60      | Amine           |                                |  |
| Pyridine                         | 110-86-1   | 546AT          | 546AT Badge                             | 2.58                   | OSHA 5 PPM          |                          | 0.21 PPM      | 0.9     |         | 6    | AT L-OV (GC/FID) | OV List A       |                                |  |
| Pyridine                         | 110-86-1   | 566AT          | 566AT Badge                             | 10.3                   | OSHA 5 PPM          |                          | 0.056 PPM     | 0.9     |         | 6    | AT L-OV (GC/FID) | OV List A       |                                |  |
| Pyridine                         | 110-86-1   | 521AT          | 521AT Badge                             | 68                     | OSHA 5 PPM          |                          | 0.0085 PPM    | 0.9     |         | 6    | AT L-OV (GC/FID) | OV List A       |                                |  |
| Pyridine #                       | 110-86-1   | 525AT #        | 525AT Badge                             | 71.4                   | OSHA 5 PPM          |                          | 0.0081 PPM    | 0.9     |         | 6    | AT L-OV (GC/FID) | OV List A       |                                |  |
| Selenium                         | 7782-49-2  | J6114K SMR TAB | Smear Tab                               |                        |                     | OSHA 0.2 MG/M3           |               |         |         | 5    | 6                | MOD OSHA ID 125 | ICP                            | J6114K: JS-024 + J8054 [Smear Tab with Vial]. Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.  |
| Selenium                         | 7782-49-2  | J537MCE208     | Cassette, MCE Cassette                  | 2.0 L/min              | OSHA 0.2 MG/M3      |                          | 0.00052 MG/M3 | 0.5     | 1000    | 6    | MOD OSHA ID 125  | ICP             |                                |  |
| Sevoflurane #                    | 28523-86-6 | 574AT #        | 574AT Badge                             | 7.89                   |                     |                          | 0.097 PPM     | 3       |         | 6    | MOD OSHA 103     | Anesthetic Gas  | Ultrane                        |  |
| Sevoflurane                      | 28523-86-6 | J6-001         | Tube, Charcoal 50-100mg Tube            | 0.050 L/min            |                     |                          | 0.015 PPM     | 3       | 12      | 6    | MOD OSHA 103     | Anesthetic Gas  | Ultrane                        |  |
| Crystalline-Silica (XRD) - Resp  | 7631-86-9  | J537PVC350     | Cassette, PVC Cassette                  | 2.5 L/min              |                     |                          |               |         |         | 1000 | 10               | MOD NIOSH 7500  | Subcontract                    | For respirable Crystalline Silica with dust, use a three piece pre-weighed PVC cassette, J537PVCW350. If dust is not needed, use J537PVC350. Attach a cyclone and adjust flow according to the manufacturers cyclone instructions for use. Assay rens SKC Aluminum Cyclones. Assay part # R792 / SKC part #225-01-01. XRD analysis is subcontracted to another laboratory. Please contact our customer service department. |
| Crystalline-Silica (XRD) - Total | 7631-86-9  | J537PVC250     | Cassette, PVC Cassette                  | 2.0 L/min              |                     |                          |               |         |         | 1000 | 10               | MOD NIOSH 7500  | Subcontract                    | For Total Crystalline Silica with Dust, use a two piece pre-weighed PVC cassette, J537PVCW250. If Dust is not needed, use a J537PVC250 cassette. XRD analysis is subcontracted to another laboratory. Please contact our customer service department.  |
| Silver                           | 7440-22-4  | J6114K SMR TAB | Smear Tab                               |                        |                     |                          |               | 0.5     |         | 6    | MOD OSHA ID 125  | ICP             |                                | J6114K: JS-024 + J8054 [Smear Tab with Vial]. Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.  |
| Silver                           | 7440-22-4  | J537MCE208     | Cassette, MCE Cassette                  | 2.0 L/min              |                     |                          | 0.00052 MG/M3 | 0.5     | 1000    | 6    | MOD OSHA ID 125  | ICP             |                                |  |
| Sodium                           | 7440-23-5  | J6114K SMR TAB | Smear Tab                               |                        |                     |                          |               | 10      |         | 6    | MOD OSHA ID 125  | ICP             |                                | J6114K: JS-024 + J8054 [Smear Tab with Vial]. Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.  |
| Sodium                           | 7440-23-5  | J537MCE208     | Cassette, MCE Cassette                  | 2.0 L/min              |                     |                          |               |         |         | 1000 | 6                | MOD OSHA ID 125 | ICP                            |  |
| Stoddard Solvent                 | 8052-41-3  | J6-001         | Tube, Charcoal 50-100mg Tube            | 0.20 L/min             | OSHA 2900 MG/M3     | NIOSH CEILING 1800 MG/M3 | 0.42 MG/M3    | 40      | 10      | 6    | MOD NIOSH 1550   | OV List C       | Mineral Spirits                |  |
| Stoddard Solvent                 | 8052-41-3  | 546AT          | 546AT Badge                             | 1.76                   | OSHA 2900 MG/M3     | NIOSH CEILING 1800 MG/M3 | 47 MG/M3      | 40      | 10      | 6    | MOD NIOSH 1550   | OV List C       | Mineral Spirits                | Stoddard solvent and VM & P Naphtha are complex mixtures and are charged as a A707-M. If a badge with one chemical prepad is submitted, there will be an additional fee. Contact our customer service group for details.   |
| Stoddard Solvent #               | 8052-41-3  | 566AT #        | 566AT Badge                             | 7.03                   | OSHA 2900 MG/M3     | NIOSH CEILING 1800 MG/M3 | 12 MG/M3      | 40      | 10      | 6    | MOD NIOSH 1550   | OV List C       | Mineral Spirits                | Stoddard solvent and VM & P Naphtha are complex mixtures and are charged as a A707-M. If a badge with one chemical prepad is submitted, there will be an additional fee. Contact our customer service group for details.   |
| Stoddard Solvent                 | 8052-41-3  | 521AT          | 521AT Badge                             | 50.8                   | OSHA 2900 MG/M3     | NIOSH CEILING 1800 MG/M3 | 1.6 MG/M3     | 40      | 10      | 6    | MOD NIOSH 1550   | OV List C       | Mineral Spirits                | Stoddard solvent and VM & P Naphtha are complex mixtures and are charged as a A707-M. If a badge with one chemical prepad is submitted, there will be an additional fee. Contact our customer service group for details.   |
| Stoddard Solvent                 | 8052-41-3  | 525AT          | 525AT Badge                             | 53.3                   | OSHA 2900 MG/M3     | NIOSH CEILING 1800 MG/M3 | 1.6 MG/M3     | 40      | 10      | 6    | MOD NIOSH 1550   | OV List C       | Mineral Spirits                | Stoddard solvent and VM & P Naphtha are complex mixtures and are charged as a A707-M. If a badge with one chemical prepad is submitted, there will be an additional fee. Contact our customer service group for details.   |
| Strontium                        | 7440-24-6  | J6114K SMR TAB | Smear Tab                               |                        |                     |                          |               | 0.05    |         | 6    | MOD OSHA ID 125  | ICP             |                                | J6114K: JS-024 + J8054 [Smear Tab with Vial]. Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.  |
| Strontium                        | 7440-24-6  | J537MCE208     | Cassette, MCE Cassette                  | 2.0 L/min              |                     |                          | 0.00052 MG/M3 | 0.05    | 1000    | 6    | MOD OSHA ID 125  | ICP             |                                |  |
| Styrene                          | 100-42-5   | 521AT          | 521AT Badge                             | 55.6                   | OSHA 100 PPM        | OSHA CEILING 200 PPM     | 0.0044 PPM    | 0.5     |         | 6    | AT L-OV (GC/FID) | OV List A       |                                | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide.  |
| Styrene                          | 100-42-5   | 546AT          | 546AT Badge                             | 2.3                    | OSHA 100 PPM        | OSHA CEILING 200 PPM     | 0.11 PPM      | 0.5     |         | 6    | AT L-OV (GC/FID) | OV List A       |                                |  |
| Styrene #                        | 100-42-5   | 566AT #        | 566AT Badge                             | 9.81                   | OSHA 100 PPM        | OSHA CEILING 200 PPM     | 0.027 PPM     | 0.5     |         | 6    | AT L-OV (GC/FID) | OV List A       |                                |  |
| Styrene                          | 100-42-5   | J6-001         | Tube, Charcoal 50-100mg Tube            | 0.10 L/min             | OSHA 100 PPM        | OSHA CEILING 200 PPM     | 0.0004 PPM    | 0.5     | 10      | 6    | AT L-OV (GC/FID) | OV List A       |                                |  |
| Styrene                          | 100-42-5   | 525AT          | 525AT Badge                             | 58.4                   | OSHA 100 PPM        | OSHA CEILING 200 PPM     | 0.0042 PPM    | 0.5     |         | 6    | AT L-OV (GC/FID) | OV List A       |                                | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide.  |
| Sulfur Dioxide                   | 2025884    | J6-080         | Tube, Anasorb 747-KOH 50-1100mg Tube    | 0.10 L/min             | OSHA 5 PPM          |                          | 0.0040 PPM    | 0.5     | 12      | 6    | MOD OSHA ID 200  |                 |                                |  |
| Sulfuric Acid                    | 7664-98-9  | J6-010-03      | Tube, Silica Gel Washed 200-1400mg Tube | 0.20 L/min             | OSHA 1 MG/M3        |                          | 0.052 MG/M3   | 5       | 100     | 6    | MOD NIOSH 7903   | Acid            | H2SO4                          |  |
| 2,4-TDI                          | 584-84-9   | J5-9002        | Cassette, GFF w/ 1, PP                  | 1.0 L/min              |                     | OSHA CEILING 0.02 PPM    | 0.00039 PPM   | 0.1     |         | 10   | MOD OSHA 42      | Isoocyanates    | Toluene-2,4-Diisocyanate       | Sample opanface (See method)   |
| 2,6-TDI                          | 91-08-7    | J5-9002        | Cassette, GFF w/ 1, PP                  | 1.0 L/min              |                     |                          | 0.00015 PPM   | 0.05    | 240     | 10   | MOD OSHA 42      | Isoocyanates    | Toluene-2,6-Diisocyanate       | Sample opanface (See method)   |
| t-1,3,3-Tetrafluoro-1-Propene #  | 29118-24-9 | 549AT #        | 549AT Badge                             | 0.6                    |                     |                          | 0.74 PPM      | 1       |         |      |                  |                 |                                |  |

# Assay Technology Inc - Sampling Guide

All 521 and 580 badges have been replaced by the TraceAir II badges 525 and 581. Until the last lots of 521 and 525 have expired, they will be listed here.  
 Many of the NIOSH/OSHA methods have been modified. For a list of significant modifications, go to www.assaytech.com.  
 Information in this table can change without notice.

OSP = Organic Solvent Panel. See X525-25AT

# - Indicates the badge / chemical combination we recommend.

| Chemical                         | CAS No     | Media/Item #   | Media Description            | Sampling Rate (mL/min) | PEL            | STEL                 | 8 hr Rpt Lmt  | RL (ug) | Vol (L) | TAT | Method Ref       | Test Group | Synonyms         | Notes/Comments  |
|----------------------------------|------------|----------------|------------------------------|------------------------|----------------|----------------------|---------------|---------|---------|-----|------------------|------------|------------------|---|
| Tetrahydrofuran                  | 109-99-9   | 521AT          | 521AT Badge                  | 74                     | OSHA 200 PPM   |                      | 0.0076 PPM    | 0.8     | 6       | 6   | AT-L-OV (GC/FID) | OV List A  |                  | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.  |
| Tetrahydrofuran #                | 109-99-9   | 546AT #        | 546AT Badge                  | 2.7                    | OSHA 200 PPM   |                      | 0.21 PPM      | 0.8     | 6       | 6   | AT-L-OV (GC/FID) | OV List A  |                  | Sampling rate has been lab verified.  |
| Tetrahydrofuran                  | 109-99-9   | 566AT          | 566AT Badge                  | 10.8                   | OSHA 200 PPM   |                      | 0.052 PPM     | 0.8     | 6       | 6   | AT-L-OV (GC/FID) | OV List A  |                  | Sampling rate has been lab verified.  |
| Tetrahydrofuran                  | 109-99-9   | J6-001         | Tube, Charcoal 50-100mg Tube | 0.10 L/min             | OSHA 200 PPM   |                      | 0.0057 PPM    | 0.8     | 10      | 6   | AT-L-OV (GC/FID) | OV List A  |                  |   |
| Tetrahydrofuran                  | 109-99-9   | 525AT          | 525AT Badge                  | 77.7                   | OSHA 200 PPM   |                      | 0.0073 PPM    | 0.8     | 6       | 6   | AT-L-OV (GC/FID) | OV List A  |                  | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.  |
| Thallium                         | 7440-28-0  | J8114K SMR TAB | Smear Tab                    |                        | OSHA 0.1 MG/M3 |                      |               | 0.5     | 6       | 6   | MOD OSHA ID 125  | ICP        |                  | J8114K: J5-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.   |
| Thallium                         | 7440-28-0  | J537MCE208     | Cassette, MCE Cassette       | 2.0 L/min              | OSHA 0.1 MG/M3 |                      | 0.00052 MG/M3 | 0.5     | 1000    | 6   | MOD OSHA ID 125  | ICP        |                  | J8114K: J5-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.   |
| Tin                              | 7440-31-5  | J8114K SMR TAB | Smear Tab                    |                        | OSHA 2 MG/M3   |                      |               | 2       | 6       | 6   | MOD OSHA ID 125  | ICP        |                  | J8114K: J5-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.   |
| Tin                              | 7440-31-5  | J537MCE208     | Cassette, MCE Cassette       | 2.0 L/min              | OSHA 2 MG/M3   |                      | 0.00052 MG/M3 | 0.5     | 1000    | 6   | MOD OSHA ID 125  | ICP        |                  | J8114K: J5-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.   |
| Titanium                         | 7440-32-6  | J8114K SMR TAB | Smear Tab                    |                        |                |                      |               | 0.2     | 6       | 6   | MOD OSHA ID 125  | ICP        |                  | J8114K: J5-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.   |
| Titanium                         | 7440-32-6  | J537MCE208     | Cassette, MCE Cassette       | 2.0 L/min              |                |                      | 0.00052 MG/M3 | 0.05    | 1000    | 6   | MOD OSHA ID 125  | ICP        |                  |   |
| Titanium Dioxide                 | 13463-67-7 | J537MCE208     | Cassette, MCE Cassette       | 2.0 L/min              |                |                      | 0.00010 MG/M3 | 0.1     | 1000    | 6   | MOD OSHA ID 125  | ICP        |                  |   |
| O-Tolualdehyde                   | 529-20-4   | 571AT          | 571AT Badge                  | 6.3                    |                |                      | 0.20 PPM      | 3       | 6       | 6   | MOD EPA TO-11    | Aldehyde   |                  |   |
| M-Tolualdehyde #                 | 620-23-5   | 571AT #        | 571AT Badge                  | 6.29                   |                |                      | 0.20 PPM      | 3       | 10      | 6   | MOD EPA TO-11    | Aldehyde   |                  |   |
| M-Tolualdehyde                   | 620-23-5   | 581AT          | 581AT Badge                  | 59.5                   |                |                      | 0.021 PPM     | 3       | 10      | 6   | MOD EPA TO-11    | Aldehyde   |                  |   |
| Toluene                          | 108-88-3   | 521AT          | 521AT Badge                  | 66.2                   | OSHA 200 PPM   |                      | 0.017 PPM     | 2       | 6       | 6   | AT-L-OV (GC/FID) | OV List A  |                  | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.  |
| Toluene                          | 108-88-3   | 546AT          | 546AT Badge                  | 2.37                   | OSHA 200 PPM   |                      | 0.47 PPM      | 2       | 6       | 6   | AT-L-OV (GC/FID) | OV List A  |                  | Sampling rate has been lab verified.  |
| Toluene #                        | 108-88-3   | 566AT #        | 566AT Badge                  | 9.48                   | OSHA 200 PPM   |                      | 0.12 PPM      | 2       | 6       | 6   | AT-L-OV (GC/FID) | OV List A  |                  | Sampling rate has been lab verified.  |
| Toluene                          | 108-88-3   | J6-001         | Tube, Charcoal 50-100mg Tube | 0.10 L/min             | OSHA 200 PPM   |                      | 0.011 PPM     | 2       | 10      | 6   | AT-L-OV (GC/FID) | OV List A  |                  |   |
| Toluene                          | 108-88-3   | 525AT          | 525AT Badge                  | 69.5                   | OSHA 200 PPM   |                      | 0.016 PPM     | 2       | 6       | 6   | AT-L-OV (GC/FID) | OV List A  |                  | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.  |
| Total Hydrocarbons               | 2228840    | 521AT          | 521AT Badge                  | 58                     |                |                      | 1.4 MG/M3     | 40      | 6       | 6   | MOD NIOSH 1500   | OV List C  |                  | All results reported in mg/m3. Hydrocarbon Range from C4 to C15. Some list A chemicals can be analyzed with some list C chemicals (aromatic and aliphatic hydrocarbons may be combined while alcohols, ketones, and acrylates cannot). Contact customer service with questions. |
| Total Hydrocarbons               | 2228840    | 546AT          | 546AT Badge                  | 2.5                    |                |                      | 33 MG/M3      | 40      | 6       | 6   | MOD NIOSH 1500   | OV List C  |                  | All results reported in mg/m3. Hydrocarbon Range from C4 to C15. Some list A chemicals can be analyzed with some list C chemicals (aromatic and aliphatic hydrocarbons may be combined while alcohols, ketones, and acrylates cannot). Contact customer service with questions. |
| Total Hydrocarbons #             | 2228840    | 566AT #        | 566AT Badge                  | 9.88                   |                |                      | 8.4 MG/M3     | 40      | 6       | 6   | MOD NIOSH 1500   | OV List C  |                  | All results reported in mg/m3. Hydrocarbon Range from C4 to C15. Some list A chemicals can be analyzed with some list C chemicals (aromatic and aliphatic hydrocarbons may be combined while alcohols, ketones, and acrylates cannot). Contact customer service with questions. |
| Total Hydrocarbons               | 2228840    | J6-001         | Tube, Charcoal 50-100mg Tube | 0.20 L/min             |                |                      | 0.42 MG/M3    | 40      | 10      | 6   | MOD NIOSH 1500   | OV List C  |                  | All results reported in mg/m3. Hydrocarbon Range from C4 to C15. Some list A chemicals can be analyzed with some list C chemicals (aromatic and aliphatic hydrocarbons may be combined while alcohols, ketones, and acrylates cannot). Contact customer service with questions. |
| Total Hydrocarbons               | 2228840    | 525AT          | 525AT Badge                  | 60.9                   |                |                      | 1.4 MG/M3     | 40      | 6       | 6   | MOD NIOSH 1500   | OV List C  |                  | All results reported in mg/m3. Hydrocarbon Range from C4 to C15. Some list A chemicals can be analyzed with some list C chemicals (aromatic and aliphatic hydrocarbons may be combined while alcohols, ketones, and acrylates cannot). Contact customer service with questions. |
| 1,1,1-Trichloroethane            | 71-55-6    | 521AT          | 521AT Badge                  | 57.4                   | OSHA 350 PPM   |                      | 0.020 PPM     | 3       | 6       | 6   | AT-L-OV (GC/FID) | OV List A  | Methylchloroform | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.  |
| 1,1,1-Trichloroethane #          | 71-55-6    | 546AT #        | 546AT Badge                  | 1.98                   | OSHA 350 PPM   |                      | 0.58 PPM      | 3       | 6       | 6   | AT-L-OV (GC/FID) | OV List A  | Methylchloroform | Sampling rate has been lab verified.  |
| 1,1,1-Trichloroethane            | 71-55-6    | 566AT          | 566AT Badge                  | 7.98                   | OSHA 350 PPM   |                      | 0.14 PPM      | 3       | 6       | 6   | AT-L-OV (GC/FID) | OV List A  | Methylchloroform | Sampling rate has been lab verified.  |
| 1,1,1-Trichloroethane            | 71-55-6    | J6-001         | Tube, Charcoal 50-100mg Tube | 0.10 L/min             | OSHA 350 PPM   |                      | 0.011 PPM     | 3       | 10      | 6   | AT-L-OV (GC/FID) | OV List A  | Methylchloroform |   |
| 1,1,1-Trichloroethane            | 71-55-6    | 525AT          | 525AT Badge                  | 60.3                   | OSHA 350 PPM   |                      | 0.019 PPM     | 3       | 6       | 6   | AT-L-OV (GC/FID) | OV List A  | Methylchloroform | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.  |
| 1,1,2-Trichloroethane            | 79-00-5    | 566AT          | 566AT Badge                  | 7.58                   | OSHA 10 PPM    |                      | 0.10 PPM      | 2       | 6       | 6   | AT-L-OV (GC/FID) | OV List A  |                  |   |
| 1,1,2-Trichloroethane            | 79-00-5    | 521AT          | 521AT Badge                  | 58.9                   | OSHA 10 PPM    |                      | 0.014 PPM     | 2       | 6       | 6   | AT-L-OV (GC/FID) | OV List A  |                  |   |
| 1,1,2-Trichloroethane #          | 79-00-5    | 546AT #        | 546AT Badge                  | 1.9                    | OSHA 10 PPM    |                      | 0.40 PPM      | 2       | 6       | 6   | AT-L-OV (GC/FID) | OV List A  |                  |   |
| 1,1,2-Trichloroethane            | 79-00-5    | 525AT          | 525AT Badge                  | 57.6                   | OSHA 10 PPM    |                      | 0.013 PPM     | 2       | 6       | 6   | AT-L-OV (GC/FID) | OV List A  |                  |   |
| Trichloroethylene                | 79-01-6    | 521AT          | 521AT Badge                  | 69.4                   | OSHA 100 PPM   | OSHA CEILING 200 PPM | 0.011 PPM     | 2       | 6       | 6   | AT-L-OV (GC/FID) | OV List A  | TCE              | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.  |
| Trichloroethylene                | 79-01-6    | 546AT          | 546AT Badge                  | 2.15                   | OSHA 100 PPM   | OSHA CEILING 200 PPM | 0.36 PPM      | 2       | 6       | 6   | AT-L-OV (GC/FID) | OV List A  | TCE              | Sampling rate has been lab verified.  |
| Trichloroethylene #              | 79-01-6    | 566AT #        | 566AT Badge                  | 8.6                    | OSHA 100 PPM   | OSHA CEILING 200 PPM | 0.090 PPM     | 2       | 6       | 6   | AT-L-OV (GC/FID) | OV List A  | TCE              | Sampling rate has been lab verified.  |
| Trichloroethylene                | 79-01-6    | J6-001         | Tube, Charcoal 50-100mg Tube | 0.10 L/min             | OSHA 100 PPM   | OSHA CEILING 200 PPM | 0.0078 PPM    | 2       | 10      | 6   | AT-L-OV (GC/FID) | OV List A  | TCE              |   |
| Trichloroethylene                | 79-01-6    | 525AT          | 525AT Badge                  | 72.9                   | OSHA 100 PPM   | OSHA CEILING 200 PPM | 0.011 PPM     | 2       | 6       | 6   | AT-L-OV (GC/FID) | OV List A  | TCE              | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.  |
| 1,1,2-Trichlorotrifluoroethane   | 76-13-1    | 521AT          | 521AT Badge                  | 55.6                   | OSHA 1000 PPM  |                      | 0.017 PPM     | 3.5     | 6       | 6   | AT-L-OV (GC/FID) | OV List A  | CFC 113          |   |
| 1,1,2-Trichlorotrifluoroethane # | 76-13-1    | 546AT #        | 546AT Badge                  | 1.67                   | OSHA 1000 PPM  |                      | 0.57 PPM      | 3.5     | 6       | 6   | AT-L-OV (GC/FID) | OV List A  | CFC 113          |   |
| 1,1,2-Trichlorotrifluoroethane   | 76-13-1    | 566AT          | 566AT Badge                  | 6.69                   | OSHA 1000 PPM  |                      | 0.14 PPM      | 3.5     | 6       | 6   | AT-L-OV (GC/FID) | OV List A  | CFC 113          |   |
| 1,1,2-Trichlorotrifluoroethane   | 76-13-1    | 525AT          | 525AT Badge                  | 58.4                   | OSHA 1000 PPM  |                      | 0.016 PPM     | 3.5     | 6       | 6   | AT-L-OV (GC/FID) | OV List A  | CFC 113          |   |
| Triethanolamine                  | 102-71-6   | J537GFF203     | Cassette, GFP Cassette       | 1.0 L/min              |                |                      | 0.085 PPM     | 25      | 120     | 10  | MOD OSHA PV2141  |            |                  |   |
| Triethylenetetramine #           | 112-24-3   | 585AT #        | 585AT Badge                  | 6.05                   |                |                      | 0.14 PPM      | 2.5     | 10      | 6   | MOD OSHA 60      | Amine      |                  |   |
| 1,2,4-Trimethylbenzene           | 95-63-6    | 521AT          | 521AT Badge                  | 56.7                   | OSHA 100 PPM   |                      | 0.0075 PPM    | 1       | 6       | 6   | AT-L-OV (GC/FID) | OV List C  |                  | Not a OV A chemical. Analyze on with list C chemicals.  |
| 1,2,4-Trimethylbenzene           | 95-63-6    | 546AT          | 546AT Badge                  | 2.09                   | OSHA 100 PPM   |                      | 0.20 PPM      | 1       | 6       | 6   | AT-L-OV (GC/FID) | OV List C  |                  | Not a OV A chemical. Analyze on with list C chemicals.  |
| 1,2,4-Trimethylbenzene #         | 95-63-6    | 566AT #        | 566AT Badge                  | 8.36                   | OSHA 100 PPM   |                      | 0.051 PPM     | 1       | 6       | 6   | AT-L-OV (GC/FID) | OV List C  |                  | Not a OV A chemical. Analyze on with list C chemicals.  |
| 1,2,4-Trimethylbenzene           | 95-63-6    | J6-001         | Tube, Charcoal 50-100mg Tube | 0.10 L/min             | OSHA 100 PPM   |                      | 0.0042 PPM    | 1       | 10      | 6   | AT-L-OV (GC/FID) | OV List C  |                  | Not a OV A chemical. Analyze on with list C chemicals.  |
| 1,2,4-Trimethylbenzene           | 95-63-6    | 525AT          | 525AT Badge                  | 59.5                   | OSHA 100 PPM   |                      | 0.0071 PPM    | 1       | 6       | 6   | AT-L-OV (GC/FID) | OV List C  |                  | Not a OV A chemical. Analyze on with list C chemicals.  |
| 2,2,4-Trimethylpentane           | 540-84-1   | 546AT          | 546AT Badge                  | 2.21                   | OSHA 100 PPM   |                      | 0.60 PPM      | 3       | 6       | 6   | AT-L-OV (GC/FID) | OV List A  | IsoOctane        | Not a OV A chemical. Analyze on with list C chemicals.  |
| 2,2,4-Trimethylpentane           | 540-84-1   | 521AT          | 521AT Badge                  | 42.6                   | OSHA 100 PPM   |                      | 0.031 PPM     | 3       | 6       | 6   | AT-L-OV (GC/FID) | OV List A  | IsoOctane        |   |
| 2,2,4-Trimethylpentane           | 540-84-1   | 566AT          | 566AT Badge                  | 8.6                    | OSHA 100 PPM   |                      | 0.16 PPM      | 3       | 6       | 6   | AT-L-OV (GC/FID) | OV List A  | IsoOctane        |   |
| 2,2,4-Trimethylpentane           | 540-84-1   | 525AT          | 525AT Badge                  | 44.7                   | OSHA 100 PPM   |                      | 0.030 PPM     | 3       | 6       | 6   | AT-L-OV (GC/FID) | OV List A  | IsoOctane        |   |
| Valeraldehyde #                  | 110-62-3   | 571AT #        | 571AT Badge                  | 7.21                   |                |                      | 0.082 PPM     | 1       | 10      | 6   | MOD EPA TO-11    | Aldehyde   |                  |   |
| Valeraldehyde                    | 110-62-3   | 581AT          | 581AT Badge                  | 68.3                   |                |                      | 0.0087 PPM    | 1       | 10      | 6   | MOD EPA TO-11    | Aldehyde   |                  |   |
| Vanadium                         | 7440-62-2  | J8114K SMR TAB | Smear Tab                    |                        |                |                      |               | 0.2     | 6       | 6   | MOD OSHA ID 125  | ICP        |                  | J8114K: J5-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.   |
| Vanadium                         | 7440-62-2  | J537MCE208     | Cassette, MCE Cassette       | 2.0 L/min              |                |                      | 0.00021 MG/M3 | 0.2     | 1000    | 6   | MOD OSHA ID 125  | ICP        |                  |   |
| Vinyl Acetate                    | 108-05-4   | 521AT          | 521AT Badge                  | 67.4                   | OSHA 200 PPM   |                      | 0.088 PPM     | 1       | 6       | 6   | AT-L-OV (GC/FID) | OV List A  |                  |   |
| Vinyl Acetate                    | 108-05-4   | 546AT          | 546AT Badge                  | 2.47                   | OSHA 200 PPM   |                      | 0.24 PPM      | 1       | 6       | 6   | AT-L-OV (GC/FID) | OV List A  |                  |   |
| Vinyl Acetate #                  | 108-05-4   | 566AT #        | 566AT Badge                  | 9.89                   | OSHA 200 PPM   |                      | 0.060 PPM     | 1       | 6       | 6   | AT-L-OV (GC/FID) | OV List A  |                  |   |
| Vinyl Acetate                    | 108-05-4   | J6-001         | Tube, Charcoal 50-100mg Tube | 0.10 L/min             | OSHA 200 PPM   |                      | 0.0059 PPM    | 1       | 10      | 6   | AT-L-OV (GC/FID) | OV List A  |                  |   |
| Vinyl Acetate                    | 108-05-4   | 525AT          | 525AT Badge                  | 70.8                   | OSHA 200 PPM   |                      | 0.084 PPM     | 1       | 6       | 6   | AT-L-OV (GC/FID) | OV List A  |                  |   |
| Vinyl Chloride                   | 75-01-4    | 546AT          | 546AT Badge                  | 2.9                    | OSHA 1 PPM     |                      | 0.14 PPM      | 0.5     | 6       | 6   | AT-L-OV (GC/FID) | OV List A  |                  | It is not recommended that Vinyl Chloride be collected on the 521/525 badge.  |
| Vinyl Chloride #                 | 75-01-4    | 566AT #        | 566AT Badge                  | 11.6                   | OSHA 1 PPM     |                      | 0.035 PPM     | 0.5     | 6       | 6   | AT-L-OV (GC/FID) | OV List A  |                  | It is not recommended that Vinyl Chloride be collected on the 521/525 badge.  |
| Vinyl Toluene                    | 25013-15-4 | 521AT          | 521AT Badge                  | 57                     | OSHA 100 PPM   |                      | 0.0038 PPM    | 0.5     | 6       | 6   | AT-L-OV (GC/FID) | OV List B  | Methyl Styrene   |   |
| Vinyl Toluene                    | 25013-15-4 | 546AT          | 546AT Badge                  | 2.11                   | OSHA 100 PPM   |                      | 0.10 PPM      | 0.5     | 6       | 6   | AT-L-OV (GC/FID) | OV List B  | Methyl Styrene   |   |
| Vinyl Toluene #                  | 25013-15-4 | 566AT #        | 566AT Badge                  | 8.43                   | OSHA 100 PPM   |                      | 0.0026 PPM    | 0.5     | 6       | 6   | AT-L-OV (GC/FID) | OV List B  | Methyl Styrene   |   |
| Vinyl Toluene                    | 25013-15-4 | 525AT          | 525AT Badge                  | 59.9                   | OSHA 100 PPM   |                      | 0.0035 PPM    | 0.5     | 6       | 6   | AT-L-OV (GC/FID) | OV List B  | Methyl Styrene   |   |
| N-Vinyl-2-Pyrrolidone            | 88-12-0    | 521AT          | 521AT Badge                  | 58.2                   | OSHA 100 PPM   |                      | 0.024 PPM     | 3       | 6       | 6   | AT-L-OV (GC/FID) | OV List A  |                  |   |
| N-Vinyl-2-Pyrrolidone            | 88-12-0    | 525AT          | 525AT Badge                  | 61.1                   | OSHA 100 PPM   |                      | 0.023 PPM     | 3       | 6       | 6   | AT-L-OV (GC/FID) | OV List A  |                  |   |
| 4-Vinylcyclohexene               | 100-40-3   | 546AT          | 546AT Badge                  | 2.2                    |                |                      |               |         |         |     |                  |            |                  |   |



# Assay Technology Inc - Sampling Guide

All 521 and 580 badges have been replaced by the TraceAir II badges 525 and 581. Until the last lots of 521 and 525 have expired, they will be listed here.  
 The 521 and 580 badges have been replaced by the TraceAir II badges 525 and 581. Until the last lots of 521 and 525 have expired, they will be listed here.  
 Many of the NIOSH/OSHA methods have been modified. For a list of significant modifications, go to [www.assaytech.com](http://www.assaytech.com).  
 Information in this table can change without notice.

OSP = Organic Solvent Panel. See X525-25AT

# - Indicates the badge / chemical combination we recommend.

| Chemical              | CAS No    | Media/Item #   | Media Description            | Sampling Rate (mL/min) | PEL             | STEL                     | 8 hr Rpt Lmt  | RL (ug) | Vol (L) | TAT | Method Ref       | Test Group | Synonyms              | Notes/Comments   |
|-----------------------|-----------|----------------|------------------------------|------------------------|-----------------|--------------------------|---------------|---------|---------|-----|------------------|------------|-----------------------|--|
| 4-Vinylcyclohexene    | 100-40-3  | 521AT          | 521AT Badge                  | 58.7                   |                 |                          | 0.0024 PPM    | 0.3     |         | 6   | AT L-OV (GC/FID) | OV List A  | 4-Vinyl-1-cyclohexene |  |
| 4-Vinylcyclohexene #  | 100-40-3  | 525AT #        | 525AT Badge                  | 61.6                   |                 |                          | 0.0023 PPM    | 0.3     |         | 6   | AT L-OV (GC/FID) | OV List A  | 4-Vinyl-1-cyclohexene |  |
| Vinylidene Chloride   | 75-35-4   | 546AT          | 546AT Badge                  | 2.33                   |                 |                          | 0.27 PPM      | 1.2     |         | 6   | AT L-OV (GC/FID) | OV List A  | 1,1 DCE               |  |
| Vinylidene Chloride   | 75-35-4   | 566AT          | 566AT Badge                  | 9.32                   |                 |                          | 0.068 PPM     | 1.2     |         | 6   | AT L-OV (GC/FID) | OV List A  | 1,1 DCE               |  |
| Vinylidene Chloride   | 75-35-4   | J6-001         | Tube, Charcoal 50-100mg Tube | 0.10 L/min             |                 |                          | 0.0063 PPM    | 1.2     | 10      | 6   | AT L-OV (GC/FID) | OV List A  | 1,1 DCE               |  |
| Vinylidene Chloride   | 75-35-4   | 521AT          | 521AT Badge                  | 60.9                   |                 |                          | 0.010 PPM     | 1.2     |         | 6   | AT L-OV (GC/FID) | OV List A  | 1,1 DCE               |  |
| Vinylidene Chloride # | 75-35-4   | 525AT #        | 525AT Badge                  | 63.9                   |                 |                          | 0.0099 PPM    | 1.2     |         | 6   | AT L-OV (GC/FID) | OV List A  | 1,1 DCE               |  |
| VM&P Naphtha #        | 8032-32-4 | 566AT #        | 566AT Badge                  | 8.92                   | NIOSH 350 MG/M3 | NIOSH CEILING 1800 MG/M3 | 9.3 MG/M3     | 40      |         | 6   | MOD NIOSH 1550   | OV List C  | VMP Naphtha           | Stoddard solvent and VM & P Naphtha are complex mixtures and are charged as a A707-M. If a badge with one chemical prepad is submitted, there will be an additional fee. Contact our customer service group for details. |
| VM&P Naphtha          | 8032-32-4 | 521AT          | 521AT Badge                  | 53.4                   | NIOSH 350 MG/M3 | NIOSH CEILING 1800 MG/M3 | 1.6 MG/M3     | 40      |         | 6   | MOD NIOSH 1550   | OV List C  | VMP Naphtha           | Stoddard solvent and VM & P Naphtha are complex mixtures and are charged as a A707-M. If a badge with one chemical prepad is submitted, there will be an additional fee. Contact our customer service group for details. |
| VM&P Naphtha          | 8032-32-4 | J6-001         | Tube, Charcoal 50-100mg Tube | 0.20 L/min             | NIOSH 350 MG/M3 | NIOSH CEILING 1800 MG/M3 | 0.42 MG/M3    | 40      | 10      | 6   | MOD NIOSH 1550   | OV List C  | VMP Naphtha           |  |
| VM&P Naphtha          | 8032-32-4 | 546AT          | 546AT Badge                  | 2.23                   | NIOSH 350 MG/M3 | NIOSH CEILING 1800 MG/M3 | 37 MG/M3      | 40      |         | 6   | MOD NIOSH 1550   | OV List C  | VMP Naphtha           | Stoddard solvent and VM & P Naphtha are complex mixtures and are charged as a A707-M. If a badge with one chemical prepad is submitted, there will be an additional fee. Contact our customer service group for details. |
| VM&P Naphtha          | 8032-32-4 | 525AT          | 525AT Badge                  | 56.1                   | NIOSH 350 MG/M3 | NIOSH CEILING 1800 MG/M3 | 1.5 MG/M3     | 40      |         | 6   | MOD NIOSH 1550   | OV List C  | VMP Naphtha           | Stoddard solvent and VM & P Naphtha are complex mixtures and are charged as a A707-M. If a badge with one chemical prepad is submitted, there will be an additional fee. Contact our customer service group for details. |
| Xylenes               | 1330-20-7 | 521AT          | 521AT Badge                  | 57.6                   | OSHA 100 PPM    |                          | 0.0083 PPM    | 1       |         | 6   | AT L-OV (GC/FID) | OV List A  |                       | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.   |
| Xylenes               | 1330-20-7 | 546AT          | 546AT Badge                  | 1.89                   | OSHA 100 PPM    |                          | 0.25 PPM      | 1       |         | 6   | AT L-OV (GC/FID) | OV List A  |                       | Sampling rate has been lab verified.   |
| Xylenes #             | 1330-20-7 | 566AT #        | 566AT Badge                  | 7.54                   | OSHA 100 PPM    |                          | 0.064 PPM     | 1       |         | 6   | AT L-OV (GC/FID) | OV List A  |                       | Sampling rate has been lab verified.   |
| Xylenes               | 1330-20-7 | J6-001         | Tube, Charcoal 50-100mg Tube | 0.10 L/min             | OSHA 100 PPM    |                          | 0.0048 PPM    | 1       | 10      | 6   | AT L-OV (GC/FID) | OV List A  |                       |  |
| Xylenes               | 1330-20-7 | 525AT          | 525AT Badge                  | 60.5                   | OSHA 100 PPM    |                          | 0.0079 PPM    | 1       |         | 6   | AT L-OV (GC/FID) | OV List A  |                       | This Chemical is on the OSP. Search for "OSP" to see all the chemicals together on the Guide. Sampling rate has been lab verified.   |
| Zinc                  | 7440-66-6 | J8114K SMR TAB | Smear Tab                    |                        |                 |                          |               |         |         | 2   | MOD OSHA ID 125  | ICP        |                       | J8114K: J5-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.  |
| Zinc                  | 7440-66-6 | J537MCE208     | Cassette, MCE Cassette       | 2.0 L/min              |                 |                          | 0.00052 MG/M3 | 0.5     | 1000    | 6   | MOD OSHA ID 125  | ICP        |                       |  |
| Zinc Chloride         | 7646-85-7 | J537MCE208     | Cassette, MCE Cassette       | 2.0 L/min              | OSHA 1 MG/M3    |                          | 0.0010 MG/M3  | 1       | 1000    | 6   | MOD OSHA ID 125  | ICP        |                       |  |
| Zinc Oxide            | 1314-13-2 | J8114K SMR TAB | Smear Tab                    |                        |                 |                          |               |         |         | 3   | MOD OSHA ID 125  | ICP        |                       | J8114K: J5-024 + J8054 (Smear Tab with Vial). Tabs are dry, moisten with DI water before use. DI water (J8055) available with shipment.  |
| Zinc Oxide            | 1314-13-2 | J537MCE208     | Cassette, MCE Cassette       | 2.0 L/min              |                 |                          | 0.0010 MG/M3  | 1       | 1000    | 6   | MOD OSHA ID 125  | ICP        |                       |  |