ANALYT MESSTECHNIK




REFERENCE GUIDE

# SKC VOC Chek 575 Passive Samplers

Which VOC Chek 575 passive sampler to use for an organic vapour, with sampling rate, validation level, sampling times and desorption efficiency for more than 500 entries from acetic acid to xylenes.

AMTC-RF-0006

Rev. 2 · October 2026

# About this guide

The SKC VOC Chek 575 series are small passive (diffusive) samplers for organic vapours at ppm level. They are clipped to the worker's collar, need no pump, and collect the vapour on a sorbent that the laboratory later extracts with a solvent. This guide helps you pick the right sampler for a compound and gives the data you need to plan the measurement: the sampling rate, how thoroughly that rate has been validated, the sampling times it covers, and the desorption efficiency the laboratory can expect.

Chapter 1 (p. 5) introduces the five samplers of the series and what each is meant for. Chapter 2 (p. 7) explains how to choose a row in the table — read it before you use the table for the first time. Chapter 3 (p. 9) is the selection table itself, and Chapter 4 (p. 20) lists the order numbers. Chapter 5 (p. 21) tells you how to reach Analyt-MTC.

The guide covers selection only. How to open, wear, close and send the samplers, and how to calculate the concentration from the laboratory result, is described in the operating instructions that come with them: AMTC-IN-0039 for samplers 575-001, 575-002, 575-005 and 575-006, and AMTC-IN-0046 for the methanol sampler 575-007.

## How this guide marks information

**Note**
Information that helps understanding; never a hazard.

## Document information

| | |
|---|---|
| Title | SKC VOC Chek 575 Passive Samplers — Reference guide |
| Document number | AMTC-RF-0006 |
| Revision | Rev. 2 — October 2026 |
| Applies to | SKC VOC Chek 575 passive samplers, Cat. No. 575-001, 575-002, 575-005, 575-006 and 575-007 |
| Language | English |
| Manufacturer | SKC Inc. |

## Revision history

| Rev. | Date | Change |
|---|---|---|
| 2 | October 2026 | Quality programme: new document type, number and identity pages. |
| 1 | October 2026 | First issue. |

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## The columns

| Column | Meaning |
|---|---|
| Compound | The chemical hazard, with other common names in brackets. |
| Validation level | See Validation levels (p. 7). |
| Research report | Number of the SKC research report that documents the validation. For validation data, ask Analyt-MTC. |
| OSHA PEL (ppm), TWA and C / STEL | US OSHA permissible exposure limits as listed in 29 CFR 1910.1000: time-weighted average, and ceiling or short-term limit. Letters and symbols after a value are explained under Symbols (p. 3). The columns are for orientation only; measure against the occupational exposure limits that apply where you work. |
| Sampling rate (mL/min) | The sampler's uptake rate for the compound — the air volume per minute from which it collects the compound. The laboratory divides the collected mass by rate × time to obtain the concentration. |
| Sampling time, Min (min) and Max (h) | Shortest and longest sampling time given for the rate. |
| Analysis | Analytical method: GC-FID, gas chromatography with flame ionisation detector; GC-ECD, gas chromatography with electron capture detector. |
| DE (%), Std. and Univ. | Desorption efficiency: the share of the collected compound that the laboratory recovers from the sorbent, measured in the SKC Inc. laboratories. Std. with the standard desorption solvent for the compound, Univ. with the SKC Universal Desorption Solvent. |
| VOC Chek 575 Cat. No. | The sampler the row applies to. |

## Symbols

| Symbol | Meaning |
|---|---|
| C | After a PEL value: ceiling value. |
| # | After a PEL value: NIOSH short-term exposure limit (STEL). |
| ‡ | After a PEL value: NIOSH recommended exposure limit (REL). |
| EL | After a PEL value: excursion limit. |
| Δ | OSHA PELs as listed in 29 CFR 1910.1000. |
| ≈ | After a minimum sampling time: short-term (STEL) sampling, 7.5 to 30 minutes; the SKC research report gives the details. |
| ∞ | After a minimum sampling time: depends on the sensitivity of the detector. |
| * | After a desorption efficiency: below the NIOSH-accepted guideline. |
| § | Desorption efficiencies were measured in the SKC Inc. laboratories; the solvent used is listed in SKC's online desorption-efficiency guide. |

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CHAPTER 1

# The VOC Chek 575 samplers

The five VOC Chek 575 samplers share the same light, miniature badge and differ in the sorbent inside. Each holds a sorbent that retains the collected compounds strongly — activated charcoal or Anasorb 747, plain or treated for a particular compound. The laboratory therefore releases them by solvent extraction (desorption) before the analysis, almost always by gas chromatography with a flame ionisation detector (GC-FID). The two broad-range samplers, 575-001 and 575-002, cover most of the compounds in the table; the other three are made for one compound each.




**Figure 1.** VOC Chek 575 passive sampler with the clip for the worker's collar.

## The five samplers

| Order code | Sorbent | Intended use |
|---|---|---|
| 575-001 | Charcoal, 350 mg | Broad range of organic vapours. Siloxanes D4, D5, L2 and L3 with an SKC-validated method. |
| 575-002 | Anasorb 747, 500 mg | Broad range of organic vapours, including the OSHA-validated methods for benzene, butyl acetates, ethyl benzene, MEK, MIBK, perchloroethylene, trichloroethylene, toluene, trimethylbenzenes and xylenes. Anaesthetic gases halothane, isoflurane, desflurane, enflurane and sevoflurane — easy for health-care staff to wear. |
| 575-005 | Anasorb 747 treated with hydrobromic acid, 500 mg | Ethylene oxide (EtO). Fully validated for 15-minute and 8-hour sampling; analysed by gas chromatography with an electron capture detector (GC-ECD). |
| 575-006 | Anasorb 747 coated with tert-butyl catechol, 500 mg | Styrene, as in OSHA method 1014. |
| 575-007 | Anasorb 747, 500 mg | Methanol. Validated for 15-minute and 8-hour sampling; suited, for example, to the fracking industry. Its sampling rate, 1.2 mL/min, is far lower than the rates of the other samplers. |

Sorbents and quantities as listed in the Analyt-MTC catalogue. Pack sizes and order numbers: Chapter 4 (p. 20).

For ethylene oxide, styrene and methanol, use a sampler that the table names for the compound: each sampling rate and desorption efficiency was determined for exactly that sorbent. Styrene has two — 575-006 for OSHA method 1014, and 575-002 with a fully validated rate. The same holds for every row that names 575-001 or 575-002 alone; see the caution in Choosing a row (p. 7).

## Siloxanes

**Note**

The 575-001 carries partially validated rates for octamethylcyclotetrasiloxane (D4), decamethylcyclopentasiloxane (D5), hexamethyldisiloxane (L2) and octamethyltrisiloxane (L3). No air quality standard regulates siloxanes yet and no agency method exists, only non-agency methods such as SKC's. Siloxanes occur in cleaners, polishes, waxes, cosmetics and personal-care products. Under the Globally Harmonized System (GHS), D4 is classified as suspected of causing reproductive toxicity, and the European Chemicals Agency (ECHA) has placed D4, D5 and D6 on its Candidate List of Substances of Very High Concern as persistent, bioaccumulative and toxic. They also damage equipment: in landfills they evaporate into the biogas, and when the gas is burnt they leave sand-like deposits that make combustion equipment fail.

CHAPTER 2

# Choosing a sampler and reading the table

Each row of the selection table is one combination of compound and sampler. A compound often has several rows — one per sampler, sometimes one per validation study — and the validation level tells you how far each sampling rate can be trusted.

## Choosing a row

1. Look the compound up in Chapter 3 (p. 9). A compound with several common names is listed under each of them, for example *2-Butanone (methyl ethyl ketone, MEK)* and *Methyl ethyl ketone (MEK), (2-butanone)*.
2. Among its rows, prefer a validated one — OSHA, Full, Bilevel or Partial — to a Calculated one; Validation levels (p. 7) shows how much each level covers. A Calculated rate has not been tested on the sampler.

   > **Note**
   > **Using 575-001 or 575-002 instead of the listed sampler.** A Full, Bilevel or Partial validation applies only to the sampler in its row. If you sample the compound with a 575-001 or 575-002 instead of the specific sampler listed, the rate becomes a non-validated Calculated rate. You may still use the sampler, but the desorption efficiency, reverse diffusion and storage stability must then be determined for your samples.

3. Order the sampler named in the Cat. No. column of that row. Where the column reads *575-001 or -002*, the row applies to either broad-range sampler.
4. Check that your planned sampling time lies between the minimum and maximum sampling times of the row, where these are given.
5. Tell the laboratory which row you used: it needs the sampling rate to calculate the concentration and the desorption efficiency to correct the result.

## Validation levels

| Level | What was tested |
|---|---|
| Full | The complete NIOSH test protocol: desorption efficiency, sampling rate and capacity, and the influence of relative humidity, temperature, concentration, reverse diffusion and storage on the accuracy. |
| Bilevel | The NIOSH protocol applied to the most volatile member of a series of related (homologous) chemicals. The less volatile members of the series then need only a partial validation to reach the same sampling accuracy. The approach is described in a published study by Guild et al. |
| Partial | The NIOSH protocol applied to sampling rate, desorption efficiency and storage stability. |
| Calculated | Not validated. The sampling (uptake) rate is calculated from the diffusion coefficient D of the compound and from the cross-sectional area A and length L of the sampler's diffusion path, which follow from its geometry. |
| OSHA *number* | Validated by OSHA; the sampler is referenced in the published OSHA method of that number. |

## SKC Universal Desorption Solvent

For many compounds the laboratory can use a single desorption solvent instead of a compound-specific mixture: the SKC Universal Desorption Solvent, 10 % 1-propanol in carbon disulfide ($CS_2$). It desorbs polar compounds as efficiently as a solvent mixture, at a lower cost. The *Univ.* column of the

table shows the desorption efficiency with this solvent where it has been measured; SKC keeps adding compounds to the list, so ask Analyt-MTC for the latest data on yours.

CHAPTER 3

# Selection table

Compounds are listed alphabetically, ignoring locants and prefixes such as *n-*, *sec-*, *o-* or *1,2-*. A compound with several common names appears under each of them. How to choose a row is explained in Chapter 2 (p. 7); what the columns and symbols mean, in The columns (p. 3) and Symbols (p. 3); the symbols are repeated at the end of the table.

| Compound | Validation level | Research report | OSHA PEL (ppm) Δ TWA | OSHA PEL (ppm) Δ C / STEL | Sampling rate (mL/min) | Sampling time Min (min) | Sampling time Max (h) | Analysis | DE (%) § Std. | DE (%) § Univ. | Order code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **A** | | | | | | | | | | | |
| Acetic acid | Calculated | | | 15 # | 19.6 | | | GC-FID | 99.2 | | 575-001 |
| Acetic acid | Calculated | | | 15 # | 19.6 | | | GC-FID | 107.9 | | 575-002 |
| Acetoin (acetyl methyl carbinol) | Calculated | | | | 14.9 | | | GC-FID | | | 575-001 or -002 |
| Acetone | Full | 1303 | | | 15.2 | 60≈ | 8 | GC-FID | 90.2 | 105.0 | 575-002 |
| Acetonitrile | Calculated | | | 40 | 22.4 | | | GC-FID | 103 | | 575-001 |
| Acetonitrile | Calculated | | | 40 | 22.4 | | | GC-FID | 108 | 99.4 | 575-002 |
| Acetylacetone | Calculated | | | | 14.3 | | | GC-FID | | | 575-001 or -002 |
| Acetyl methyl carbinol (acetoin) | Calculated | | | | 14.9 | | | GC-FID | | | 575-001 or -002 |
| Acrylonitrile | Calculated | | | 10 C | 20.4 | 2.5 h | 8 | GC-FID | | | 575-001 |
| Acrylonitrile | Partial | | | 10 C | 20.4 | 2.5 h | 8 | GC-FID | 81 | | 575-002 |
| Adiponitrile | Calculated | | | | 11.9 | | | GC-FID | | | 575-001 or -002 |
| Allyl alcohol | Calculated | | | 4 # | 18.4 | | | GC-FID | 64 | | 575-001 |
| Allyl alcohol | Calculated | | | 4 # | 18.4 | | | GC-FID | 76 | | 575-002 |
| Allyl chloride | Calculated | | | 2 # | 17.8 | | | GC-FID | 95.1 | | 575-001 |
| Allyl chloride | Calculated | | | 2 # | 17.8 | | | GC-FID | 101.3 | | 575-002 |
| n-Amyl acetate | Calculated | | | | 11.7 | | | GC-FID | 93.5 | | 575-001 |
| n-Amyl acetate | Calculated | | | | 11.7 | | | GC-FID | 96 | | 575-002 |
| sec-Amyl acetate (2-pentyl acetate) | Calculated | | | | 11.8 | | | GC-FID | | | 575-001 or -002 |
| n-Amyl alcohol | Calculated | | | | 13.9 | | | GC-FID | 87.3 | | 575-001 |
| n-Amyl alcohol | Calculated | | | | 13.9 | | | GC-FID | 100.6 | | 575-002 |
| t-Amyl methyl ether (methyl tert-amyl ether) | Bilevel | 1355 | | | 13.1 | 30 | 8 | GC-FID | 99 | | 575-001 |
| Aniline | Calculated | | | | 14.2 | | | GC-FID | | | 575-001 or -002 |
| **B** | | | | | | | | | | | |
| Benzene | Full | 1312 | | 5 | 16.0 | 15 | 8 | GC-FID | 94 | | 575-001 |
| Benzene | OSHA 1005 | | | 5 | 17.0 | 15 | 8 | GC-FID | 93.6 | 96 | 575-002 |
| Benzophenone | Calculated | | | | 9.3 | | | GC-FID | | | 575-001 or -002 |
| Benzotrifluoride (trifluoromethyl benzene; OXSOL 2000) | Bilevel | | | | 13.3 | 15 | 8 | GC-FID | 106 | | 575-001 |
| Benzotrifluoride (trifluoromethyl benzene; OXSOL 2000) | Bilevel | | | | 13.3 | 15 | 8 | GC-FID | 107 | | 575-002 |
| Benzyl acetate | Calculated | | | | 11.3 | | | GC-FID | 91.2 | | 575-002 |
| Benzyl alcohol | Calculated | | | | 12.5 | | | GC-FID | | | 575-001 or -002 |
| Benzyl chloride | Calculated | | | 1 C | 12.9 | | | GC-FID | 98.7 | | 575-001 |
| Benzyl chloride | Calculated | | | 1 C | 12.9 | | | GC-FID | 98.9 | | 575-002 |
| Bifenthrin | Calculated | | | | 6.2 | | | GC-FID | | | 575-001 or -002 |
| Bromobenzene | Calculated | | | | 13.8 | | | GC-FID | | | 575-001 or -002 |
| Bromodichloromethane (dichlorobromomethane) | Calculated | | | | 16.1 | | | GC-FID | | | 575-001 or -002 |
| Bromoethane (ethyl bromide) | Calculated | | | 250 # | 18.5 | | | GC-FID | | | 575-001 or -002 |
| Bromoform | Calculated | | | | 15.2 | | | GC-FID | | | 575-001 or -002 |
| Bromomethane (methyl bromide) | Calculated | | | 20 C | 22.1 | | | GC-FID | | | 575-001 or -002 |
| 1-Bromopropane (propyl bromide) | Full | 1740 | | | 14.4 | 30 | 8 | GC-FID | 100 | | 575-001 |
| 1-Bromopropane (propyl bromide) | Full | 1740 | | | 14.7 | 30 | 8 | GC-FID | 107 | | 575-002 |
| 1,3-Butadiene | Calculated | | | 5 | 19.6 | | | GC-FID | | | 575-001 or -002 |
| n-Butane | Calculated | | | | 18.1 | | | GC-FID | | | 575-001 or -002 |
| n-Butanol (n-butyl alcohol) | Calculated | | | 50 # | 15.5 | | | GC-FID | 94 | | 575-001 |
| n-Butanol (n-butyl alcohol) | Calculated | | | 50 # | 15.5 | | | GC-FID | 100 | 101.6 | 575-002 |

| Compound | Validation level | Research report | OSHA PEL (ppm) Δ TWA | OSHA PEL (ppm) Δ C / STEL | Sampling rate (mL/min) | Sampling time Min (min) | Sampling time Max (h) | Analysis | DE (%) § Std. | DE (%) § Univ. | Order code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Butanol (sec-butyl alcohol) | Calculated | | | 150 # | 15.6 | | | GC-FID | 93 | | 575-001 |
| 2-Butanol (sec-butyl alcohol) | Calculated | | | 150 # | 15.6 | | | GC-FID | 100 | 102.6 | 575-002 |
| 2-Butanone (methyl ethyl ketone, MEK) | Bilevel | 1306 | | | 17.1 | 15 | 12 | GC-FID | 100 | | 575-002 |
| 2-Butanone (methyl ethyl ketone, MEK) | OSHA 1004 | | | | 16.88 | 15 | 8 | GC-FID | 92.3 | 96.4 | 575-002 |
| 2-Butoxyethanol (butyl CELLOSOLVE solvent) | Calculated | | | | 12 | | | GC-FID | | | 575-001 |
| 2-Butoxyethanol (butyl CELLOSOLVE solvent) | Calculated | | | | 12 | | | GC-FID | 89.7 | 102 | 575-002 |
| 2-Butoxy-2-ethanol | Calculated | | 50 | | 12.05 | | | GC-FID | | | 575-001 or -002 |
| n-Butoxy-2-propanol | Calculated | | | | 11.22 | | | GC-FID | | | 575-001 or -002 |
| 2-(Butoxyethoxy)ethyl acetate | Calculated | | | | 8.91 | | | GC-FID | | | 575-001 or -002 |
| 2-Butoxyethyl acetate | Calculated | | | | 10.43 | | | GC-FID | | | 575-001 or -002 |
| n-Butyl acetate | OSHA 1009 | | | 200 # | 13.07 | 15 | 8 | GC-FID | 99.2 | | 575-002 |
| n-Butyl acetate | Partial | 1894 | | 200 # | 12.3 | 30 | 8 | GC-FID | 90.4 | | 575-001 |
| n-Butyl acetate | Partial | 1894 | | 200 # | 13.2 | 30 | 8 | GC-FID | 98.7 | | 575-002 |
| sec-Butyl acetate | Calculated | | | | 12.8 | | | GC-FID | 96.2 | | 575-001 |
| sec-Butyl acetate | Calculated | | | | 12.8 | | | GC-FID | 96.6 | | 575-002 |
| sec-Butyl acetate | OSHA 1009 | | | | 12.74 | 15 | 8 | GC-FID | 98.9 | | 575-002 |
| t-Butyl acetate | Calculated | | | | 12.7 | | | GC-FID | 95.1 | | 575-001 |
| t-Butyl acetate | Calculated | | | | 12.7 | | | GC-FID | 94.8 | | 575-002 |
| t-Butyl acetate | OSHA 1009 | | | | 13.09 | 15 | 8 | GC-FID | 98.9 | | 575-002 |
| Butyl acrylate | Bilevel | | | | 11.7 | 30 | 8 | GC-FID | 95 | | 575-002 |
| t-Butyl alcohol | Calculated | | | 150 | 15.8 | | | GC-FID | 84 | 103 | 575-002 |
| n-Butyl alcohol (1-butanol) | Calculated | | | 50 # | 15.5 | | | GC-FID | 94 | | 575-001 |
| n-Butyl alcohol (1-butanol) | Calculated | | | 50 # | 15.5 | | | GC-FID | 100 | 101.6 | 575-002 |
| sec-Butyl alcohol (2-butanol) | Calculated | | | 150 # | 15.6 | | | GC-FID | 93 | | 575-001 |
| sec-Butyl alcohol (2-butanol) | Calculated | | | 150 # | 15.6 | | | GC-FID | 100 | 102.6 | 575-002 |
| t-Butyl benzene | Calculated | | | | 11.3 | | | GC-FID | | 102 | 575-002 |
| Butyl CELLOSOLVE acetate (ethylene glycol monobutyl ether acetate) | Calculated | | | | 10.4 | | | GC-FID | | | 575-001 or -002 |
| Butyl CELLOSOLVE solvent (2-butoxyethanol) | Calculated | | | | 12.0 | | | GC-FID | | | 575-001 |
| Butyl CELLOSOLVE solvent (2-butoxyethanol) | Calculated | | | | 12 | | | GC-FID | 89.7 | 102 | 575-002 |
| Butyl diglycol (diethylene glycol butyl ether) | Calculated | | | | 9.97 | | | GC-FID | | | 575-001 or -002 |
| t-Butyl ethyl ether (ethyl tert-butyl ether) | Bilevel | 1356 | | | 13.1 | 15 | 8 | GC-FID | 101 | | 575-001 |
| n-Butyl glycidyl ether | Calculated | | | 5.6 ‡ | 11.6 | | | GC-FID | | | 575-001 |
| t-Butyl methyl ether (methyl t-butyl ether, MTBE) | Full | 1352 | | | 13.6 | 8.5 | 8 | GC-FID | 97.4 | | 575-001 |
| p-tert-Butyl toluene | Bilevel | | | | 10.4 | 15 | 8 | GC-FID | 100 | | 575-001 |
| n-Butylbenzene | Calculated | | | | 11.23 | | | GC-FID | 103 | | 575-002 |
| sec-Butylbenzene | Calculated | | | | 11.3 | | | GC-FID | | | 575-001 or -002 |
| beta-Butyrol acetone | Calculated | | | | 16.6 | | | GC-FID | | | 575-001 or -002 |
| gamma-Butyrolactone | Calculated | | | | 16.6 | | | GC-FID | 80.9 | | 575-002 |
| **C** | | | | | | | | | | | |
| Camphene | Calculated | | | | 11.2 | | | GC-FID | | | 575-001 or -002 |
| Camphor | Calculated | | | | 10.8 | | | GC-FID | 94.2 | | 575-001 |
| Camphor | Calculated | | | | 10.8 | | | GC-FID | 113 | | 575-002 |
| Carbolic acid (phenol) | Calculated | | | 15.6 C | 14.5 | | | GC-FID | | | 575-001 or -002 |
| Carbon disulfide | Calculated | | | 30 | 19.54 | | | GC-FID | | | 575-001 or -002 |
| Carbon tetrachloride | Bilevel | | | 25 C | 14.1 | 30 | 8 | GC-FID | 98.3 | | 575-001 |
| Carene | Calculated | | | | 11.3 | | | GC-FID | | | 575-001 or -002 |
| 2-CELLOSOLVE acetate (2-ethoxyethyl acetate) | Calculated | | | | 12.1 | | | GC-FID | 95.4 | | 575-002 |
| 1-Chloro-2-methyl benzene (monochlorotoluene; OXSOL 10) | Bilevel | | | | 13 | 15 | 8 | GC-FID | 91.8 | | 575-001 |
| 1-Chloro-2-methyl benzene (monochlorotoluene; OXSOL 10) | Bilevel | | | | 13 | 15 | 8 | GC-FID | 91 | | 575-002 |
| 1-Chloro-4-(trifluoromethyl)benzene (parachlorobenzotrifluoride; OXSOL 100) | Bilevel | | | | 11.8 | 15 | 8 | GC-FID | 102 | | 575-001 |
| 1-Chloro-4-(trifluoromethyl)benzene (parachlorobenzotrifluoride; OXSOL 100) | Bilevel | | | | 11.8 | 15 | 8 | GC-FID | 108 | | 575-002 |

| Compound | Validation level | Research report | OSHA PEL (ppm) Δ TWA | OSHA PEL (ppm) Δ C / STEL | Sampling rate (mL/min) | Sampling time Min (min) | Sampling time Max (h) | Analysis | DE (%) § Std. | DE (%) § Univ. | Order code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorobenzene | Partial | 1838 | | | 14.41 | 15 | 8 | GC-FID | 87.6 | | 575-002 |
| Chlorobromomethane | Calculated | | | | 18.3 | | | GC-FID | 103 | | 575-002 |
| Chloroethane (ethyl chloride) | Calculated | | | | 20.02 | | | GC-FID | | | 575-001 or -002 |
| Chloroform | Bilevel | | | 50 C | 13 | 60 | 8 | GC-FID | 97.3 | | 575-001 |
| Chloromethane (methyl chloride) | Calculated | | | | 24.6 | | | GC-FID | | | 575-001 or -002 |
| Chloroprene | Calculated | | | | 16.2 | | | GC-FID | | | 575-001 or -002 |
| o-Chlorostyrene | Bilevel | 1374 | | | 9.8 | 15 | 8 | GC-FID | 75.2 | | 575-002 |
| 4-Chlorotoluene | Calculated | | | | 12.4 | | | GC-FID | | | 575-001 or -002 |
| p-Cresol (4-methyl phenol) | Calculated | | | | 13.1 | | | GC-FID | | | 575-001 or -002 |
| m-Cresol (3-methyl phenol) | Calculated | | | | 13.1 | | | GC-FID | | | 575-001 or -002 |
| o-Cresol (2-methyl phenol) | Calculated | | | | 13.2 | | | GC-FID | | | 575-001 or -002 |
| Cumene (isopropyl benzene) | Bilevel | | | | 12.8 | 15 | 8 | GC-FID | 99.3 | | 575-001 |
| Cumene (isopropyl benzene) | Bilevel | | | | 12.8 | 15 | 8 | GC-FID | 106 | | 575-002 |
| Cyclohexane | Bilevel | | | | 15.6 | 15 | 8 | GC-FID | 105 | | 575-001 |
| Cyclohexane | Bilevel | | | | 15.6 | 15 | 8 | GC-FID | 109 | | 575-002 |
| Cyclohexanol | Calculated | | | | 13.5 | | | GC-FID | 98 | | 575-001 |
| Cyclohexanol | Calculated | | | | 13.5 | | | GC-FID | 105 | 89.6 | 575-002 |
| Cyclohexanone | Partial | | | | 16.41 | 15 | 8 | GC-FID | 100 | | 575-002 |
| Cyclohexene | Calculated | | | | 15.4 | | | GC-FID | 102 | | 575-001 |
| Cyclohexene | Calculated | | | | 15.4 | | | GC-FID | 106 | | 575-002 |
| Cyclopentane | Calculated | | | | 16.8 | | | GC-FID | | | 575-001 or -002 |
| p-Cymene (4-isopropyltoluene) | Calculated | | | | 11.3 | | | GC-FID | | | 575-001 or -002 |
| **D** | | | | | | | | | | | |
| Decamethylcyclopentasiloxane (D5) | Partial | 1891 | | | 5.66 | 15 | 8 | GC-FID | 99.0 | | 575-001 |
| Decamethyltetrasiloxane | Calculated | | | | 7.36 | | | GC-FID | | | 575-001 or -002 |
| n-Decane | Partial | | | | 12.2 | | | GC-FID | 103 | 102 | 575-002 |
| 1-Decanol (decyl alcohol) | Calculated | | | | 9.6 | | | GC-FID | 97.3 | | 575-002 |
| Decyl alcohol (1-decanol) | Calculated | | | | 9.6 | | | GC-FID | 97.3 | | 575-002 |
| Desflurane | Partial | 1893 | | 2 | 13.8 | 30 | 4 | GC-FID | 94.3 | | 575-002 |
| Diacetone alcohol | Calculated | | | | 12.4 | | | GC-FID | 92.9 | 97.7 | 575-002 |
| 1,2-Dibromo-3-chloropropane | Calculated | | | | 12.6 | | | GC-FID | 101.3 | | 575-002 |
| Dibromochloromethane | Calculated | | | | 15.6 | | | GC-FID | | | 575-001 or -002 |
| 1,2-Dibromoethane (ethylene dibromide) | Calculated | | | 30 | 15.3 | | | GC-FID | 92.3 | | 575-001 |
| 1,2-Dibromoethane (ethylene dibromide) | Calculated | | | 30 | 15.3 | | | GC-FID | 99.4 | | 575-002 |
| 1,6-Dibromohexane (hexamethylene dibromide) | Calculated | | | | 10.7 | | | GC-FID | | | 575-001 or -002 |
| Dibutyl phthalate (DBP) | Calculated | | | | 7.5 | | | GC-FID | | | 575-001 or -002 |
| o-Dichlorobenzene (1,2-dichlorobenzene) | Partial | | | 50 C | 12.5 | 15 | 8 | GC-FID | 79.2 | | 575-001 |
| o-Dichlorobenzene (1,2-dichlorobenzene) | Partial | 1875 | | 50 | 12.5 | 15 | 8 | GC-FID | 77.1 | | 575-002 |
| m-Dichlorobenzene (1,3-dichlorobenzene) | Calculated | | | | 12.95 | | | GC-FID | 91.8 | | 575-001 |
| m-Dichlorobenzene (1,3-dichlorobenzene) | Calculated | | | | 12.95 | | | GC-FID | 92.7 | | 575-002 |
| p-Dichlorobenzene (1,4-dichlorobenzene) | Calculated | | | | 12.95 | | | GC-FID | 91.1 | | 575-001 |
| p-Dichlorobenzene (1,4-dichlorobenzene) | Calculated | | | | 12.95 | | | GC-FID | 94.7 | | 575-002 |
| 1,3-Dichlorobenzene (m-dichlorobenzene) | Calculated | | | | 12.95 | | | GC-FID | 91.8 | | 575-001 |
| 1,3-Dichlorobenzene (m-dichlorobenzene) | Calculated | | | | 12.95 | | | GC-FID | 92.7 | | 575-002 |
| 1,2-Dichlorobenzene (o-dichlorobenzene) | Partial | | | 50 C | 12.5 | 15 | 8 | GC-FID | 79.2 | | 575-001 |
| 1,2-Dichlorobenzene (o-dichlorobenzene) | Partial | 1875 | | 50 C | 12.5 | 15 | 8 | GC-FID | 77.1 | | 575-002 |
| 1,4-Dichlorobenzene (p-dichlorobenzene) | Calculated | | | | 12.95 | | | GC-FID | 91.1 | | 575-001 |
| 1,4-Dichlorobenzene (p-dichlorobenzene) | Calculated | | | | 12.95 | | | GC-FID | 94.7 | | 575-002 |
| Dichlorobromomethane (bromodichloromethane) | Calculated | | | | 16.1 | | | GC-FID | | | 575-001 or -002 |
| Dichlorodifluoromethane (Freon 12) | Calculated | | | | 18.6 | | | GC-FID | | | 575-001 or -002 |
| 1,1-Dichloroethane | Calculated | | | | 16.85 | | | GC-FID | | | 575-001 or -002 |
| 1,2-Dichloroethane (ethylene dichloride) | Bilevel | | | 100 | 14.2 | 60 | 8 | GC-FID | 95.8 | | 575-001 |
| 1,2-Dichloroethene (1,2-dichloroethylene) | Full | | | | 14.8 | 15 | 8 | GC-FID | 97.1 | | 575-001 |
| 1,1-Dichloroethene (vinylidene chloride) | Bilevel | | | | 12.3 | 60 | 8 | GC-FID | 95.2 | | 575-001 |
| Dichloroethyl ether | Calculated | | | 15 C | 12.5 | | | GC-FID | | | 575-001 or -002 |
| 1,2-Dichloroethylene (1,2-dichloroethene) | Full | | | | 14.8 | 15 | 8 | GC-FID | 97.1 | | 575-001 |
| Dichloromethane (methylene chloride) | Full | 1323 | | 125 | 14.7 | 60≈ | 8 | GC-FID | 96 | | 575-001 |
| 1,2-Dichloropropane (propylene dichloride) | Bilevel | | | | 14.3 | 15 | 8 | GC-FID | 97.7 | | 575-001 |

| Compound | Validation level | Research report | OSHA PEL (ppm) Δ TWA | OSHA PEL (ppm) Δ C / STEL | Sampling rate (mL/min) | Sampling time Min (min) | Sampling time Max (h) | Analysis | DE (%) § Std. | DE (%) § Univ. | Order code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloropropene | Calculated | | | | 15.6 | | | GC-FID | | | 575-001 or -002 |
| cis-1,3-Dichloropropene | Partial | 1886 | | | 13.6 | 15 | 8 | GC-FID | 101 | | 575-002 |
| trans-1,3-Dichloropropene | Partial | 1886 | | | 14.4 | 15 | 8 | GC-FID | 99.4 | | 575-002 |
| 1,2-Dichlorotetrafluoroethane (Freon 114) | Calculated | | | | 15.3 | | | GC-FID | | | 575-001 or -002 |
| Dicyclopentadiene | Calculated | | | | 11.8 | | | GC-FID | | | 575-001 or -002 |
| Diesel | Calculated | | | | 11.2 | | | GC-FID | | | 575-001 or -002 |
| Diethyl ether (ethyl ether) | Calculated | | | | 16.4 | | | GC-FID | | | 575-001 or -002 |
| Diethylene glycol dibutyl ether | Calculated | | | | 8.3 | | | GC-FID | | | 575-001 or -002 |
| Diethylene glycol butyl ether | Calculated | | | | 10.0 | | | GC-FID | | | 575-001 or -002 |
| Diethyl ketone (3-pentanone) | Calculated | | | | 14.8 | | | GC-FID | 83.9 | | 575-001 |
| Diethyl ketone (3-pentanone) | Calculated | | | | 14.8 | | | GC-FID | 100.3 | | 575-002 |
| N,N-Diethyl-m-toluamide (DEET) | Calculated | | | | 9.2 | | | | | | |
| Diethylene glycol dimethyl ether (2-methoxyethyl ether) | Calculated | | | | 11.5 | | | GC-FID | | | 575-001 or -002 |
| Diethylene glycol monobutyl ether | Calculated | | | | 9.97 | | | GC-FID | | | 575-001 or -002 |
| Diethylene glycol monoethyl ether | Calculated | | | | 9.85 | | | GC-FID | | | 575-002 |
| Diethylene glycol monoethyl ether acetate | Calculated | | | | 9.88 | | | GC-FID | | | 575-001 or -002 |
| Diethylene glycol monomethyl ether (2-[2-methoxyethoxy] ethanol) | Calculated | | | | 11.3 | | | GC-FID | | | 575-001 or -002 |
| Diisobutyl ketone (DIBK), (isovalerone) | Bilevel | 1305 | | | 10.3 | 30 | 8 | GC-FID | 98.3 | | 575-002 |
| 1,2-Dimethoxyethane (ethylene glycol dimethyl ether) | Calculated | | | | 14.7 | | | GC-FID | | | 575-001 or -002 |
| Diisopropylbenzene | Calculated | | | | 9.9 | | | GC-FID | | | 575-001 or -002 |
| Dimethoxymethane (methylal) | Calculated | | | | 17.1 | | | GC-FID | | | 575-001 or -002 |
| Dimethyl adipate | Calculated | | | | 10.73 | | | GC-FID | | | 575-001 or -002 |
| Dimethyl cellosolve | Calculated | | | | 14.67 | | | GC-FID | | | 575-001 or -002 |
| Dimethyl disulfide | Calculated | | | | 15.4 | | | GC-FID | | | 575-001 or -002 |
| 2,5-Dimethyl hexane | Calculated | | | | 11.82 | | | GC-FID | | | 575-001 or -002 |
| 2,2-Dimethyl hexane | Calculated | | | | 11.86 | | | GC-FID | | | 575-001 or -002 |
| 2,2-Dimethyl pentane | Calculated | | | | 12.9 | | | GC-FID | | | 575-001 or -002 |
| 2,3-Dimethyl pentane | Calculated | | | | 12.8 | | | GC-FID | | | 575-001 or -002 |
| 2,4-Dimethyl pentane | Calculated | | | | 12.9 | | | GC-FID | | | 575-001 or -002 |
| Dimethyl pentanedioate | Calculated | | | | 10.8 | | | GC-FID | | | 575-001 or -002 |
| Dimethyl sulfide | Calculated | | | | 19 | | | GC-FID | | | 575-001 or -002 |
| Dimethyl sulfoxide | Calculated | | | | 16.3 | | | GC-FID | | | 575-001 or -002 |
| N,N-Dimethylacetamide | Calculated | | | | 14.4 | | | GC-FID | | | 575-001 or -002 |
| N,N-Dimethylaniline | Calculated | | | | 12.14 | | | GC-FID | | | 575-001 or -002 |
| 2,2-Dimethylbutane (neohexane) | Calculated | | | | 14.2 | | | GC-FID | | | 575-001 or -002 |
| trans-1,2-Dimethylcyclohexane | Calculated | | | | 12.4 | | | GC-FID | 106.1 | | 575-001 |
| N,N-Dimethylformamide (DMF) | Calculated | | | | 16.4 | | | GC-FID | 87.2 | | 575-002 |
| 2,3-Dimethylpentane | Calculated | | | | 12.8 | | | GC-FID | | | 575-001 or -002 |
| 2,4-Dinitrophenylhydrazine | Calculated | | | | 10.6 | | | GC-FID | | | 575-001 or -002 |
| 1,4-Dioxane | Calculated | | | | 15.8 | | | GC-FID | 91.4 | | 575-002 |
| 1,3-Dioxolane | Calculated | | | | 16.9 | | | GC-FID | | | 575-001 or -002 |
| Di-N-octyl phthalate (DNOP) | Calculated | | | | 10.8 | | | GC-FID | | | 575-001 or -002 |
| Diphenyl oxide (phenyl ether) | Calculated | | | | 10.4 | | | GC-FID | | | 575-001 or -002 |
| Dipropyl ketone (4-heptanone) | Calculated | | | | 12.1 | | | GC-FID | 85.3 | | 575-001 |
| Dipropyl ketone (4-heptanone) | Calculated | | | | 12.1 | | | GC-FID | 112 | | 575-002 |
| Dipropylene glycol methyl ether | Calculated | | | | 10.8 | | | GC-FID | 84.3 | | 575-002 |
| 1,2-Di(4-pyridyl)ethylene | Calculated | | | | 10.4 | | | GC-FID | | | 575-001 or -002 |
| Dodecamethylcyclohexasiloxane | Calculated | | | | 6.75 | | | GC-FID | | | 575-001 or -002 |
| Dodecane | Calculated | | | | 9.11 | | | GC-FID | | | 575-001 or -002 |
| n-Dodecanol (lauryl alcohol) | Calculated | | | | 8.7 | | | GC-FID | 107.5 | | 575-001 |
| n-Dodecanol (lauryl alcohol) | Calculated | | | | 8.7 | | | GC-FID | 103 | 103.8 | 575-002 |
| 1-Dodecene | Calculated | | | | 9.29 | | | GC-FID | | | 575-001 or -002 |
| 1-Dodecyl alcohol (lauryl alcohol) | Calculated | | | | 8.7 | | | GC-FID | 107.5 | | 575-001 |
| 1-Dodecyl alcohol (lauryl alcohol) | Calculated | | | | 8.7 | | | GC-FID | 103 | 103.8 | 575-002 |
| Dodecyl methacrylate | Calculated | | | | 7.6 | | | GC-FID | | | 575-001 or -002 |
| **E** | | | | | | | | | | | |
| Enflurane (ethrane) | Partial | 1893 | | 2 | 13.8 | 30 | 4 | GC-FID | 101 | | 575-002 |
| Epichlorohydrin | Calculated | | | | 16.4 | | | GC-FID | 88.2 | | 575-002 |

| Compound | Validation level | Research report | OSHA PEL (ppm) Δ TWA | OSHA PEL (ppm) Δ C / STEL | Sampling rate (mL/min) | Sampling time Min (min) | Sampling time Max (h) | Analysis | DE (%) § Std. | DE (%) § Univ. | Order code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2,3-Epoxy-1-propanol (glycidol) | Calculated | | | | 17.8 | | | GC-FID | | | 575-001 or -002 |
| 2,3-Epoxypropyl methacrylate (glycidyl methacrylate) | Calculated | | | | 11.45 | | | GC-FID | | | 575-001 or -002 |
| Ethanol (ethyl alcohol) | Partial | 1876 | | | 20.3 | 15 | 8 | GC-FID | 99 | 103 | 575-002 |
| 2-Ethoxyethanol | Calculated | | | | 14.4 | | | GC-FID | 100.8 | | 575-001 |
| 2-Ethoxyethanol | Calculated | | | | 14.4 | | | GC-FID | 111.2 | 101 | 575-002 |
| 2-Ethoxyethyl acetate (2-CELLOSOLVE acetate) | Calculated | | | | 12.1 | | | GC-FID | 95.4 | | 575-002 |
| Ethrane (enflurane) | Partial | 1893 | | 2 | 13.8 | 30 | 4 | GC-FID | 101 | | 575-002 |
| Ethyl acetate | Partial | 1894 | | | 13.1 | 30 | 8 | GC-FID | 92.8 | | 575-001 |
| Ethyl acetate | Partial | 1894 | | | 14.1 | 30 | 8 | GC-FID | 100 | 101 | 575-002 |
| Ethyl acrylate | Bilevel | | | | 13.7 | 15 | 8 | GC-FID | 94.2 | | 575-002 |
| Ethyl alcohol (ethanol) | Partial | 1876 | | | 20.3 | 15 | 8 | GC-FID | 99 | 103 | 575-002 |
| Ethyl amyl ketone | Calculated | | | | 11.3 | | | GC-FID | | | 575-001 or -002 |
| Ethyl benzene | Bilevel | | | | 12.9 | 15 | 6 | GC-FID | 100 | | 575-001 |
| Ethyl benzene | Bilevel | | | | 12.9 | 15 | 6 | GC-FID | 104 | | 575-002 |
| Ethyl benzene | OSHA 1002 | | | | 13.83 | 15 | 8 | GC-FID | 99.1 | | 575-002 |
| Ethyl bromide (bromoethane) | Calculated | | | 250 # | 18.5 | | | GC-FID | | | 575-001 or -002 |
| Ethyl butyl ketone (3-heptanone) | Calculated | | | | 12.2 | | | GC-FID | 87.9 | | 575-001 |
| Ethyl butyl ketone (3-heptanone) | Calculated | | | | 12.2 | | | GC-FID | 103.4 | | 575-002 |
| Ethyl chloride (chloroethane) | Calculated | | | | 20.2 | | | GC-FID | | | 575-001 or -002 |
| Ethyl cyanide | Calculated | | | | 18.61 | | | GC-FID | | | 575-001 or -002 |
| Ethyl ether | Calculated | | | | 16.4 | | | GC-FID | | | 575-001 or -002 |
| Ethyl-3-ethoxypropionate | Calculated | | | | 11.2 | | | GC-FID | | | 575-001 or -002 |
| Ethyl formate | Calculated | | | | 17.8 | | | GC-FID | | | 575-001 or -002 |
| 2-Ethyl hexyl acetate | Calculated | | | | 9.8 | | | GC-FID | 99 | | 575-002 |
| Bis(2-ethylhexyl) phthalate | Calculated | | | | 6.1 | | | GC-FID | | | 575-001 or -002 |
| Ethyl lactate | Calculated | | | | 12.8 | | | GC-FID | | | 575-001 or -002 |
| Ethyl methacrylate | Full | | | | 13.1 | 15 | 8 | GC-FID | 84.7 | | 575-001 |
| Ethyl methacrylate | Full | | | | 13.1 | 15 | 8 | GC-FID | 104 | | 575-002 |
| Ethyl propionate | Calculated | | | | 14 | | | GC-FID | | | 575-001 or -002 |
| Ethyl tert-butyl ether (tert-butyl ethyl ether) | Bilevel | 1356 | | | 13.1 | 15 | 8 | GC-FID | 101 | | 575-001 |
| Ethylene dibromide (1,2-dibromoethane) | Calculated | | | 30 | 15.3 | | | GC-FID | 92.3 | | 575-001 |
| Ethylene dibromide (1,2-dibromoethane) | Calculated | | | 30 | 15.3 | | | GC-FID | 99.4 | | 575-002 |
| Ethylene dichloride (1,2-dichloroethane) | Bilevel | | | 100 C | 14.2 | 60 | 8 | GC-FID | 95.8 | | 575-001 |
| Ethylene glycol | Calculated | | | 100 $mg/m^3$ C | 17.44 | | | GC-FID | | | 575-001 or -002 |
| Ethylene glycol diethyl ether | Calculated | | | | 12.27 | | | GC-FID | | | 575-001 or -002 |
| Ethylene glycol dimethyl ether (1,2-dimethoxyethane) | Calculated | | | | 14.7 | | | GC-FID | | | 575-001 or -002 |
| Ethylene glycol monobutyl ether acetate (butyl CELLOSOLVE acetate) | Calculated | | | | 10.4 | | | GC-FID | | | 575-001 or -002 |
| Ethylene glycol monohexyl ether | Calculated | | | | 10.5 | | | GC-FID | | | 575-001 or -002 |
| Ethylene glycol monomethyl ether acetate (methyl CELLOSOLVE acetate) | Calculated | | | | 12.9 | | | GC-FID | 92.4 | | 575-001 or -002 |
| Ethylene oxide | Full | 1543 | | 5 EL | 21.2 | 15 | 8 | GC-ECD | 102 | | 575-005 |
| 2-Ethylhexanol | Calculated | | | | 10.93 | | | GC-FID | 93.7 | 109 | 575-002 |
| 2-Ethyltoluene | Calculated | | | | 12.1 | | | GC-FID | 106 | | 575-002 |
| 3-Ethyltoluene | Calculated | | | | 12.1 | | | GC-FID | | | 575-001 |
| 3-Ethyltoluene | Calculated | | | | 12.1 | | | GC-FID | 101 | | 575-002 |
| 4-Ethyltoluene | Calculated | | | | 12.1 | | | GC-FID | 91 | | 575-002 |
| Eucalyptol | Calculated | | | | 10.5 | | | GC-FID | | | 575-001 or -002 |
| **F** | | | | | | | | | | | |
| Fluoranthene | Calculated | | | | 9.4 | | | GC-FID | | | 575-001 or -002 |
| Freon 11 (trichlorofluoromethane) | Calculated | | | | 16.65 | | | GC-FID | | | 575-001 or -002 |
| Freon 113 (1,1,2-trichloro-1,2,2-trifluoroethane) | Calculated | | | 1250 # | 14.1 | | | GC-FID | | | 575-001 or -002 |
| Freon 114 (1,2-dichlorotetrafluoroethane) | Calculated | | | | 15.3 | | | GC-FID | | | 575-001 or -002 |
| Freon 12 (dichlorodifluoromethane) | Calculated | | | | 18.6 | | | GC-FID | | | 575-001 or -002 |
| Furfuryl | Calculated | | | | 14.5 | | | GC-FID | | | 575-001 or -002 |
| **G** | | | | | | | | | | | |
| Gasoline | Calculated | | | | 13.84 | | | GC-FID | | | 575-001 or -002 |

| Compound | Validation level | Research report | OSHA PEL (ppm) Δ TWA | OSHA PEL (ppm) Δ C / STEL | Sampling rate (mL/min) | Sampling time Min (min) | Sampling time Max (h) | Analysis | DE (%) § Std. | DE (%) § Univ. | Order code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Glutaric acid dimethyl ester | Calculated | | | | 11.5 | | | GC-FID | | | 575-001 or -002 |
| Glycidol (2,3-epoxy-1-propanol) | Calculated | | | | 17.8 | | | GC-FID | | | 575-001 or -002 |
| Glycidyl methacrylate (2,3-epoxypropyl methacrylate) | Calculated | | | | 11.45 | | | GC-FID | | | 575-001 or -002 |
| **H** | | | | | | | | | | | |
| Halothane | Full | 1893 | | | 14.1 | 15 | 8 | GC-FID | 99.9 | | 575-002 |
| n-Heptane | Bilevel | | | | 13.9 | 15 | 8 | GC-FID | 105 | | 575-001 |
| n-Heptane | Bilevel | | | | 13.9 | 15 | 8 | GC-FID | 108 | | 575-002 |
| 4-Heptanone (dipropyl ketone) | Calculated | | | | 12.1 | | | GC-FID | 85.3 | | 575-001 |
| 4-Heptanone (dipropyl ketone) | Calculated | | | | 12.1 | | | GC-FID | 112.2 | | 575-002 |
| 3-Heptanone (ethyl butyl ketone) | Calculated | | | | 12.2 | | | GC-FID | 87.9 | | 575-001 |
| 3-Heptanone (ethyl butyl ketone) | Calculated | | | | 12.2 | | | GC-FID | 103.4 | | 575-002 |
| 2-Heptanone (methyl n-amyl ketone) | Calculated | | | | 12.2 | | | GC-FID | 99.8 | | 575-002 |
| 1-Heptene | Calculated | | | | 13.1 | | | GC-FID | | | 575-001 or -002 |
| Hexachlorobutadiene | Calculated | | | | 10.5 | | | GC-FID | | | 575-001 or -002 |
| Hexachloroethane | Calculated | | | | 11.5 | | | GC-FID | | | 575-001 or -002 |
| Hexadecane | Calculated | | | | 7.7 | | | GC-FID | | | 575-001 or -002 |
| Hexamethyldisiloxane (L2) | Partial | 1892 | | | 9.98 | 15 | 8 | GC-FID | 102.9 | | 575-001 |
| Hexamethylene dibromide (1,6-dibromohexane) | Calculated | | | | 10.7 | | | GC-FID | | | 575-001 |
| n-Hexane | Bilevel | | | | 14.3 | 15 | 8 | GC-FID | 100 | | 575-001 |
| n-Hexane | Bilevel | | | | 14.3 | 15 | 8 | GC-FID | 112 | | 575-002 |
| Hexanol (hexyl alcohol) | Calculated | | | | 12.64 | | | GC-FID | 92.9 | 97 | 575-002 |
| 2-Hexanone (methyl butyl ketone MBK) | Partial | 1873 | | | 14.3 | 15 | 8 | GC-FID | 104 | 97.8 | 575-002 |
| 2-Hexene | Calculated | | | | 14.5 | | | GC-FID | | | 575-001 or -002 |
| Hexone (methyl isobutyl ketone [MIBK]) | Calculated | | | | 13.5 | 30 | 8 | GC-FID | | | 575-001 or -002 |
| Hexone (methyl isobutyl ketone [MIBK]) | Bilevel | 1304 | | | 13.5 | 30 | 8 | GC-FID | 94.6 | | 575-002 |
| Hexone (methyl isobutyl ketone [MIBK]) | OSHA 1004 | | | | 13.62 | 30 | 8 | GC-FID | 92.9 | 99.5 | 575-002 |
| sec-Hexyl acetate | Calculated | | | | 11.1 | | | GC-FID | | | 575-001 or -002 |
| Hexyl alcohol (hexanol) | Calculated | | | | 12.64 | | | GC-FID | 92.9 | 97 | 575-002 |
| Hexylene | Calculated | | | | 14.5 | | | GC-FID | | | 575-001 or -002 |
| Hexylene glycol | Calculated | | | 25 C | 11.81 | | | GC-FID | | | 575-001 or -002 |
| Hydrogen cyanide | Calculated | | | | 30.40 | | | GC-FID | | | 575-001 or -002 |
| **I** | | | | | | | | | | | |
| Iodomethane (methyl iodide) | Calculated | | | | 18.7 | | | GC-FID | | | 575-001 or -002 |
| Isoamyl acetate | Calculated | | | | 11.9 | | | GC-FID | 91.9 | | 575-001 |
| Isoamyl acetate | Calculated | | | | 11.9 | | | GC-FID | 108 | | 575-002 |
| Isoamyl alcohol | Calculated | | | 125 # | 13.9 | | | GC-FID | | | 575-001 or -002 |
| Isobutyl acetate | Calculated | | | | 12.8 | | | GC-FID | 106 | | 575-002 |
| Isobutyl acetate | OSHA 1009 | | | | 13.16 | 15 | 8 | GC-FID | 99.1 | | 575-002 |
| Isobutyl acrylate | Calculated | | | | 12.2 | | | GC-FID | | | 575-001 or -002 |
| Isobutyl alcohol | Calculated | | | | 15.6 | | | GC-FID | 93.0 | | 575-001 |
| Isobutyl alcohol | Calculated | | | | 15.6 | | | GC-FID | 100.0 | 100 | 575-002 |
| Isoflurane | Full | 1893 | | | 13.2 | 15 | 8 | GC-FID | 96.0 | | 575-002 |
| Isooctane | Calculated | | | | 11.9 | | | GC-FID | | | 575-001 or -002 |
| Isooctyl alcohol | Calculated | | | | 10.9 | | | GC-FID | | | 575-001 or -002 |
| Isopentane (2-methyl butane) | Calculated | | | 610 # | 15.8 | | | GC-FID | | | 575-001 or -002 |
| Isophorone | Partial | RDP0003 | | | 13.38 | 15 | 8 | GC-FID | | 95 | 575-002 |
| Isoprene | Calculated | | | | 18.25 | | | GC-FID | | | 575-001 or -002 |
| Isopropanol (isopropyl alcohol) | Calculated | | | 500 # | 18.42 | 15 | 8 | GC-FID | | | 575-001 |
| Isopropanol (isopropyl alcohol) | Partial | 1839 | | 500 # | 18.42 | 15 | 8 | GC-FID | 103.5 | 102 | 575-002 |
| Isopropyl acetate | Calculated | | | | 14.2 | | | GC-FID | 88.5 | | 575-001 |
| Isopropyl acetate | Calculated | | | | 14.2 | | | GC-FID | 101 | | 575-002 |
| Isopropyl alcohol (isopropanol) | Partial | 1839 | | 500 # | 18.42 | 15 | 8 | GC-FID | 103.5 | 102 | 575-002 |
| Isopropyl benzene (cumene) | Bilevel | | | | 12.8 | 15 | 8 | GC-FID | 99.3 | | 575-001 |
| Isopropyl benzene (cumene) | Bilevel | | | | 12.8 | 15 | 8 | GC-FID | 106 | | 575-002 |
| Isopropyl ether | Calculated | | | | 13.4 | | | GC-FID | | | 575-001 or -002 |
| Isopropyl glycidyl ether | Calculated | | | 50 # | 12.8 | | | GC-FID | | | 575-001 or -002 |
| 4-Isopropyltoluene (p-cymene) | Calculated | | | | 11.3 | | | GC-FID | | | 575-001 or -002 |
| Isovalerone (diisobutyl ketone [DIBK]) | Bilevel | 1305 | | | 10.3 | 30 | 8 | GC-FID | 98.3 | | 575-002 |

| Compound | Validation level | Research report | OSHA PEL (ppm) Δ TWA | OSHA PEL (ppm) Δ C / STEL | Sampling rate (mL/min) | Sampling time Min (min) | Sampling time Max (h) | Analysis | DE (%) § Std. | DE (%) § Univ. | Order code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **J** | | | | | | | | | | | |
| Jet fuel | Calculated | | | | 11.3 | | | GC-FID | | | 575-001 or -002 |
| **K** | | | | | | | | | | | |
| Kerosene | Calculated | | | | 11.03 | | | GC-FID | | | 575-001 or -002 |
| **L** | | | | | | | | | | | |
| Lauryl alcohol (1-dodecanol) | Calculated | | | | 8.7 | | | GC-FID | 107.5 | | 575-001 |
| Lauryl alcohol (1-dodecanol) | Calculated | | | | 8.7 | | | GC-FID | 103 | 103.8 | 575-002 |
| Limonene | Calculated | | | | 11.1 | | | GC-FID | 102 | | 575-002 |
| **M** | | | | | | | | | | | |
| Mesityl oxide | Calculated | | | | 13.7 | | | GC-FID | | | 575-001 or -002 |
| Mesitylene (1,3,5-trimethylbenzene) | Calculated | | | | 12.1 | | | GC-FID | 93.6 | | 575-001 |
| Mesitylene (1,3,5-trimethylbenzene) | Calculated | | | | 12.1 | | | GC-FID | 96 | | 575-002 |
| Mesitylene (1,3,5-trimethylbenzene) | OSHA 1020 | | | | 12.1 | 15 | 8 | GC-FID | 101 | | 575-002 |
| Methacrolein | Calculated | | | | 17.4 | | | GC-FID | | | 575-001 or -002 |
| Methanol (methyl alcohol) | Partial | 1895 | | 250 | 1.2 | 15 | 8 | GC-FID | 101 | 93.8 | 575-007 |
| 2-Methoxy-1-propyl acetate | Calculated | | | | 12.1 | | | GC-FID | | | 575-001 or -002 |
| 1-Methoxy-2-propanol (propylene glycol monomethyl ether) | Calculated | | | 150 # | 14.7 | | | GC-FID | 82.9 | | 575-001 |
| 1-Methoxy-2-propanol (propylene glycol monomethyl ether) | Calculated | | | 150 # | 14.7 | | | GC-FID | 100 | 106 | 575-002 |
| 1-Methoxy-2-propyl acetate (propylene glycol monomethyl ether acetate) | Calculated | | | | 12.2 | | | GC-FID | 108 | | 575-001 |
| 1-Methoxy-2-propyl acetate (propylene glycol monomethyl ether acetate) | Calculated | | | | 12.1 | | | GC-FID | 103 | 105 | 575-002 |
| 2-Methoxyethanol (methyl CELLOSOLVE) | Calculated | | | | 16.1 | | | GC-FID | 94.7 | | 575-001 |
| 2-Methoxyethanol (methyl CELLOSOLVE) | Calculated | | | | 16.1 | | | GC-FID | 91.1 | 81.8 | 575-002 |
| 2-(2-Methoxyethoxy) ethanol (diethylene glycol monomethyl ether) | Calculated | | | | 11.3 | | | GC-FID | | | 575-001 or -002 |
| 2-Methoxyethyl ether (diethylene glycol dimethyl ether) | Calculated | | | | 11.5 | | | GC-FID | | | 575-001 or -002 |
| Methoxyflurane | Calculated | | | 2 | 13.3 | | | GC-FID | 95.7 | | 575-002 |
| Methyl acetate | Calculated | | | 250 # | 17.8 | | | GC-FID | | | 575-001 or -002 |
| Methyl acrylate | Full | | | | 15.7 | 15 | 8 | GC-FID | 94.3 | | 575-002 |
| Methyl alcohol (methanol) | Partial | 1895 | | 250 | 1.2 | 15 | 8 | GC-FID | 101 | 93.8 | 575-007 |
| Methyl amyl alcohol (methyl isobutyl carbinol) | Calculated | | | | 12.8 | | | GC-FID | | | 575-002 |
| Methyl bromide (bromomethane) | Calculated | | | 20 C | 22.1 | | | GC-FID | | | 575-001 or -002 |
| 2-Methyl butane (isopentane) | Calculated | | | 610 # | 15.8 | | | GC-FID | | | 575-001 |
| 2-Methyl butyl acetate | Calculated | | | | 11.8 | | | GC-FID | | | 575-001 or -002 |
| Methyl butyl ketone (MBK), (2-hexanone) | Calculated | | | | 14.3 | 15 | 8 | GC-FID | | | 575-001 |
| Methyl butyl ketone (MBK), (2-hexanone) | Partial | 1873 | | | 14.3 | 15 | 8 | GC-FID | 104 | 97.8 | 575-002 |
| Methyl carbitol | Calculated | | | | 12.1 | | | GC-FID | | | 575-001 or -002 |
| Methyl CELLOSOLVE (2-methoxyethanol) | Calculated | | | | 16.1 | | | GC-FID | 94.7 | | 575-001 |
| Methyl CELLOSOLVE (2-methoxyethanol) | Calculated | | | | 16.1 | | | GC-FID | 91.1 | 81.8 | 575-002 |
| Methyl CELLOSOLVE acetate (ethylene glycol monomethyl ether acetate) | Calculated | | | | 12.9 | | | GC-FID | 92.4 | | 575-002 |
| Methyl chloroform (1,1,1-trichloroethane) | Bilevel | | | | 14.1 | 15 | 8 | GC-FID | 99.9 | | 575-001 |
| Methyl cyclohexane | Bilevel | | | | 14.2 | 15 | 8 | GC-FID | 106 | | 575-001 |
| Methyl ethyl ketone (MEK), (2-butanone) | Bilevel | 1306 | | | 17.1 | 15 | 12 | GC-FID | 100 | | 575-002 |
| Methyl ethyl ketone (MEK), (2-butanone) | OSHA 1004 | | | | 16.88 | 15 | 8 | GC-FID | 92.3 | 96.4 | 575-002 |
| Methyl formate | Calculated | | | | 20.58 | | | GC-FID | | | 575-001 or -002 |
| 2-Methyl hexane | Calculated | | | | 12.80 | | | GC-FID | | | 575-001 or -002 |
| 3-Methyl hexane | Calculated | | | | 12.80 | | | GC-FID | | | 575-001 or -002 |
| Methyl iodide (iodomethane) | Calculated | | | | 18.7 | | | GC-FID | | | 575-001 or -002 |
| Methyl isoamyl ketone | Calculated | | | | 12.3 | | | GC-FID | | | 575-001 or -002 |
| Methyl isobutyl carbinol (methyl amyl alcohol) | Calculated | | | | 12.8 | | | GC-FID | | | 575-001 or -002 |
| Methyl isobutyl ketone (MIBK), (hexone) | Bilevel | 1304 | | | 13.5 | 30 | 8 | GC-FID | 94.6 | | 575-002 |
| Methyl isobutyl ketone (MIBK), (hexone) | OSHA 1004 | | | | 13.62 | 30 | 8 | GC-FID | 92.9 | 99.5 | 575-002 |
| Methyl isopropyl ketone | Calculated | | | | 14.8 | | | GC-FID | | | 575-001 or -002 |
| Methyl isothiocyanate | Calculated | | | | 17.36 | | | GC-FID | | | 575-001 or -002 |
| Methyl methacrylate (MMA) | Bilevel | 1308 | | | 13.1 | 7.5 | 8 | GC-FID | 100.5 | | 575-002 |

| Compound | Validation level | Research report | OSHA PEL (ppm) Δ TWA | OSHA PEL (ppm) Δ C / STEL | Sampling rate (mL/min) | Sampling time Min (min) | Sampling time Max (h) | Analysis | DE (%) § Std. | DE (%) § Univ. | Order code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Methyl n-amyl ketone (2-heptanone) | Calculated | | | | 12.2 | | | GC-FID | 99.8 | | 575-002 |
| 2-Methyl pentane | Calculated | | | | 14.1 | | | GC-FID | | | 575-001 or -002 |
| 3-Methyl pentane | Calculated | | | | 14.1 | | | GC-FID | | | 575-001 or -002 |
| Methyl propyl ketone (2-pentanone) | Calculated | | | | 14.8 | | | GC-FID | 92.6 | | 575-002 |
| 3-Methyl pyrrolidinone | Calculated | | | | 13.28 | | | GC-FID | | | 575-001 or -002 |
| Methyl styrene (vinyl toluene) | Calculated | | | | 12.3 | | | GC-FID | | | 575-001 or -002 |
| Methyl t-butyl ether (MTBE) | Full | 1352 | | | 13.6 | 8.5 | 8 | GC-FID | 97.4 | | 575-001 |
| Methyl tert-amyl ether (tert-amyl methyl ether) | Bilevel | 1355 | | | 13.1 | 30 | 8 | GC-FID | 99 | | 575-001 |
| 2-Methyl tetrahydrofuran | Calculated | | | | 14.7 | | | GC-FID | | | 575-001 or -002 |
| n-Methyl-2-pyrrolidinone | Calculated | | | | 13.97 | | | GC-FID | | | 575-001 or -002 |
| 5-Methyl-3-heptanone | Calculated | | | | 11.4 | | | GC-FID | 87.5 | | 575-001 |
| 5-Methyl-3-heptanone | Calculated | | | | 11.4 | | | GC-FID | 110.7 | | 575-002 |
| Methylal (dimethoxymethane) | Calculated | | | | 17.1 | | | GC-FID | | | 575-001 or -002 |
| Methyl chloride (chloromethane) | Calculated | | | | 24.6 | | | GC-FID | | | 575-001 or -002 |
| 1-Methylcyclohexanol | Full | | | | 12.4 | 15 | 8 | GC-FID | 94.7 | | 575-001 |
| 1-Methylcyclohexanol | Full | | | | 12.4 | 15 | 8 | GC-FID | 108 | | 575-002 |
| Methylcyclopentane | Calculated | | | | 14.9 | | | GC-FID | | | 575-001 or -002 |
| Methylene chloride (dichloromethane) | Full | 1323 | | 125 | 14.7 | 60≈ | 8 | GC-FID | 96 | | 575-001 |
| 3-Methylhexane | Calculated | | | | 12.8 | | | GC-FID | | | 575-001 or -002 |
| alpha-Methylstyrene | Bilevel | 1359 | | 100 C | 12.6 | 15 | 12 | GC-FID | 95.7 | | 575-002 |
| Mineral spirits | Calculated | | | | 10.95 | | | GC-FID | | | 575-001 |
| Monochlorotoluene (1-chloro-2-methylbenzene; OXSOL 10) | Bilevel | | | | 13.0 | 15 | 8 | GC-FID | 91.8 | | 575-001 |
| Monochlorotoluene (1-chloro-2-methylbenzene; OXSOL 10) | Bilevel | | | | 13.0 | 15 | 8 | GC-FID | 91 | | 575-002 |
| **N** | | | | | | | | | | | |
| Naphtha (solvent naphtha (petroleum) light aromatic) | Calculated | | | | 11.6 | | | GC-FID | | | 575-001 or -002 |
| Naphthalene | Calculated | | | | 12.2 | | | GC-FID | | | 575-001 or -002 |
| 1-Naphthyl isothiocyanate | Calculated | | | | 11.3 | | | GC-FID | | | 575-001 or -002 |
| Neohexane (2,2-dimethylbutane) | Calculated | | | | 14.2 | | | GC-FID | | | 575-001 |
| Nitrobenzene | Calculated | | | | 12.6 | | | GC-FID | | | 575-001 |
| Nonafluorobutyl methyl ether | Calculated | | | | 8.9 | | | GC-FID | | | 575-001 or -002 |
| Nonane | Bilevel | | | | 10.6 | 15 | 8 | GC-FID | 103 | | 575-001 |
| Nonyl alcohol | Calculated | | | | 10.2 | | | GC-FID | 96.80 | | 575-002 |
| **O** | | | | | | | | | | | |
| Octadecane | Calculated | | | | 7.1 | | | GC-FID | | | 575-001 |
| Octamethylcyclotetrasiloxane (D4) | Partial | 1890 | | | 6.32 | 15 | 8 | GC-FID | 97.2 | | 575-001 |
| Octamethyltrisiloxane (L3) | Partial | 1902 | | | 8.47 | 15 | 8 | GC-FID | 98.3 | | 575-001 |
| n-Octane | Bilevel | | | | 12.7 | 15 | 8 | GC-FID | 106 | | 575-001 |
| n-Octane | Bilevel | | | | 12.7 | 15 | 8 | GC-FID | 110 | | 575-002 |
| Octanol (octyl alcohol) | Calculated | | | | 10.86 | | | GC-FID | | | 575-002 |
| 3-Octanone (ethyl amyl ketone) | Calculated | | | | 11.34 | | | GC-FID | | | 575-001 or -002 |
| 1-Octene | Calculated | | | | 11.99 | | | GC-FID | | | 575-001 |
| Octyl alcohol (octanol) | Calculated | | | | 10.86 | | | GC-FID | | | 575-002 |
| OXSOL 10 (monochlorotoluene [1-chloro-2-methyl benzene]) | Bilevel | | | | 13 | 15 | 8 | GC-FID | 91.8 | | 575-001 |
| OXSOL 10 (monochlorotoluene [1-chloro-2-methyl benzene]) | Bilevel | | | | 13 | 15 | 8 | GC-FID | 91 | | 575-002 |
| Oxybenzone | Calculated | | | | 15 | | | GC-FID | | | 575-001 or -002 |
| **P** | | | | | | | | | | | |
| Parachlorobenzotrifluoride (1-chloro-4-[trifluoromethyl] benzene; OXSOL 100) | Bilevel | | | | 11.8 | 15 | 8 | GC-FID | 102 | | 575-001 |
| Parachlorobenzotrifluoride (1-chloro-4-[trifluoromethyl] benzene; OXSOL 100) | Bilevel | | | | 11.8 | 15 | 8 | GC-FID | 108 | | 575-002 |
| Pentachloroethane | Calculated | | | | 12.4 | | | GC-FID | | | 575-001 or -002 |
| Pentadecane | Calculated | | | | 7.93 | | | GC-FID | | | 575-001 |
| n-Pentane | Full | 1311 | | | 14.9 | 15 | 8 | GC-FID | 105.2 | | 575-001 |
| 2,4-Pentanedione (acetylacetone) | Calculated | | | | 14.3 | | | | | | |
| 3-Pentanone (diethyl ketone) | Calculated | | | | 14.8 | | | GC-FID | 83.9 | | 575-001 |
| 3-Pentanone (diethyl ketone) | Calculated | | | | 14.8 | | | GC-FID | 100.3 | | 575-002 |

| Compound | Validation level | Research report | OSHA PEL (ppm) Δ TWA | OSHA PEL (ppm) Δ C / STEL | Sampling rate (mL/min) | Sampling time Min (min) | Sampling time Max (h) | Analysis | DE (%) § Std. | DE (%) § Univ. | Order code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Pentanone (methyl propyl ketone) | Calculated | | | | 14.8 | | | GC-FID | 92.6 | | 575-002 |
| 1-Pentene | Calculated | | | | 16.3 | | | GC-FID | | | 575-001 |
| 2-Pentyl acetate (sec-amyl acetate) | Calculated | | | | 11.8 | | | GC-FID | | | 575-001 |
| Perchloroethylene (tetrachloroethylene) | Full | 1686 | | 200 C | 13.1 | 7.5 | 12 | GC-FID | 100.8 | | 575-001 |
| Perchloroethylene (tetrachloroethylene) | OSHA 1001 | | | 200 C | 13.06 | 15 | 8 | GC-FID | 95.4 | | 575-002 |
| Perfluoromethylcyclohexane | Partial | | | | 10.2 | | | GC-FID | 102 | | 575-002 |
| Phenol (carbolic acid) | Calculated | | | 15.6 C | 14.5 | | | GC-FID | | | 575-001 or -002 |
| Phenyl ether (diphenyl oxide) | Calculated | | | | 10.4 | | | GC-FID | | | 575-001 |
| Phenyl glycidyl ether | Calculated | | | | 11.6 | | | GC-FID | | | 575-001 |
| 4-Phenylcyclohexene | Calculated | | | | 11.53 | | | GC-FID | | | 575-001 or -002 |
| Phenyl propane | Calculated | | | | 12.14 | | | GC-FID | | | 575-001 or -002 |
| alpha-Pinene | Partial | 1840 | | | 11.3 | 15 | 8 | GC-FID | 108.6 | | 575-002 |
| Propane | Calculated | | | | 21.73 | | | GC-FID | | | 575-001 |
| n-Propanol (propyl alcohol) | Calculated | | | | 17.7 | | | GC-FID | 87.3 | | 575-001 |
| n-Propanol (propyl alcohol) | Calculated | | | | 17.7 | | | GC-FID | 97.8 | | 575-002 |
| Propargyl alcohol | Calculated | | | | 19.0 | | | GC-FID | | | 575-001 or -002 |
| Propionic acid | Calculated | | | | 16.8 | | | GC-FID | | | 575-001 or -002 |
| Propionitrile | Calculated | | | | 18.61 | | | GC-FID | | | 575-001 |
| Propoxy-2-propanol | Calculated | | | | 12.2 | | | GC-FID | | | 575-001 or -002 |
| n-Propyl acetate | Calculated | | | | 14.1 | | | GC-FID | 87.5 | | 575-001 |
| n-Propyl acetate | Calculated | | | | 14.1 | | | GC-FID | 101.1 | | 575-002 |
| Propyl alcohol (n-propanol) | Calculated | | | | 17.7 | | | GC-FID | 87.3 | | 575-001 |
| Propyl alcohol (n-propanol) | Calculated | | | | 17.7 | | | GC-FID | 97.8 | | 575-002 |
| Propyl bromide (1-bromopropane) | Full | 1740 | | | 14.4 | 30 | 8 | GC-FID | 100 | | 575-001 |
| Propyl bromide (1-bromopropane) | Full | 1740 | | | 14.7 | 30 | 8 | GC-FID | 107 | | 575-002 |
| n-Propylbenzene | Calculated | | | | 12.1 | | | GC-FID | 101 | | 575-002 |
| Propylene dichloride (1,2-dichloropropane) | Bilevel | | | | 14.3 | 15 | 8 | GC-FID | 97.7 | | 575-001 |
| Propylene glycol monomethyl ether (1-methoxy-2-propanol) | Calculated | | | 150 # | 14.7 | | | GC-FID | 82.9 | | 575-001 |
| Propylene glycol monomethyl ether (1-methoxy-2-propanol) | Calculated | | | 150 # | 14.7 | | | GC-FID | 100 | 106 | 575-002 |
| Propylene glycol monomethyl ether acetate (1-methoxy-2-propyl acetate) | Calculated | | | | 12.2 | | | GC-FID | 108 | | 575-001 |
| Propylene glycol monomethyl ether acetate (1-methoxy-2-propyl acetate) | Calculated | | | | 12.1 | | | GC-FID | 103 | 105 | 575-002 |
| Propylene oxide | Calculated | | | | 19.9 | | | GC-FID | 98 | | 575-001 |
| Propylene oxide | Calculated | | | | 19.9 | | | GC-FID | 99.7 | | 575-002 |
| Pyridine | Calculated | | | | 16.6 | | | GC-FID | 88.2 | 93.8 | 575-002 |
| **S** | | | | | | | | | | | |
| Sevoflurane | Partial | 1893 | | 2 | 12.8 | 30 | 4 | GC-FID | 100 | | 575-002 |
| Siloxane D4 (octamethylcyclotetrasiloxane-D4) | Partial | 1890 | | | 6.32 | 15 | 8 | GC-FID | 97.2 | | 575-001 |
| Siloxane D5 (decamethylcyclopentasiloxane-D5) | Partial | 1891 | | | 5.66 | 15 | 8 | GC-FID | 99.0 | | 575-001 |
| Siloxane L2 (hexamethyldisiloxane-L2) | Partial | 1892 | | | 9.98 | 15 | 8 | GC-FID | 102.9 | | 575-001 |
| Siloxane L3 (octamethyltrisiloxane-L3) | Partial | 1902 | | | 8.47 | 15 | 8 | GC-FID | 98.3 | | 575-001 |
| Solvent naphtha (petroleum) light aromatic | Calculated | | | | 11.61 | | | GC-FID | | | 575-001 or -002 |
| Styrene | Full | 1313 | | 200 C | 13.70 | 15 | 8 | GC-FID | ≥ 75 | | 575-002 |
| Styrene | OSHA 1014 | | | 200 C | 13.55 | 15 | 8 | GC-FID | 96.7 | | 575-006 |
| **T** | | | | | | | | | | | |
| Terpineol | Calculated | | | | 10.27 | | | GC-FID | | | 575-001 or -002 |
| 1,1,1,2-Tetrachloroethane | Calculated | | | | 13.63 | | | GC-FID | 98.3 | | 575-002 |
| 1,1,2,2-Tetrachloroethane | Bilevel | | | | 11.8 | 480∞ | 8 | GC-FID | 64.4* | | 575-001 |
| Tetrachloroethylene (perchloroethylene) | Full | 1686 | | 200 C | 13.1 | 7.5 | 12 | GC-FID | 100.8 | | 575-001 |
| Tetrachloroethylene (perchloroethylene) | OSHA 1001 | | | 200 C | 13.06 | 15 | 8 | GC-FID | 95.4 | | 575-002 |
| Tetradecane | Calculated | | | | 8.3 | | | GC-FID | | | 575-001 |
| Tetrahydrofuran | Partial | 1841 | | | 17.7 | 15 | 8 | GC-FID | 100.6 | | 575-002 |
| 1,2,3,4-Tetramethylbenzene | Calculated | | | | 11.1 | | | GC-FID | | | 575-001 or -002 |
| 1,2,3,5-Tetramethylbenzene | Calculated | | | | 10.8 | | | GC-FID | | | 575-001 or -002 |
| 1,2,4,5-Tetramethylbenzene | Calculated | | | | 11.2 | | | GC-FID | 86.6 | | 575-002 |
| Toluene | Bilevel | | | 300 C | 14.5 | 15 | 8 | GC-FID | 97.9 | | 575-001 |

| Compound | Validation level | Research report | OSHA PEL (ppm) Δ TWA | OSHA PEL (ppm) Δ C / STEL | Sampling rate (mL/min) | Sampling time Min (min) | Sampling time Max (h) | Analysis | DE (%) § Std. | DE (%) § Univ. | Order code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Toluene | Calculated | | | 300 C | 14.5 | 15 | 8 | GC-FID | | 93.1 | 575-002 |
| Toluene | OSHA 111 | | | 300 C | 14.89 | 10 | 8 | GC-FID | 97 | | 575-002 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | Calculated | | | 1250 # | 14.1 | | | GC-FID | | | 575-001 or -002 |
| 1,2,3-Trichlorobenzene | Calculated | | | | 11.34 | | | GC-FID | | | 575-001 or -002 |
| 1,2,4-Trichlorobenzene | Calculated | | | 5 C | 11.4 | | | GC-FID | | | 575-001 or -002 |
| 1,1,2-Trichloroethane | Bilevel | | | | 12.5 | 15 | 8 | GC-FID | 96.7 | | 575-001 |
| 1,1,1-Trichloroethane (methyl chloroform) | Bilevel | | | | 14.1 | 15 | 8 | GC-FID | 99.9 | | 575-001 |
| Trichloroethylene | Full | | | 200 C | 14.9 | 15 | 8 | GC-FID | 102 | | 575-001 |
| Trichloroethylene | OSHA 1001 | | | 200 C | 14.24 | 15 | 8 | GC-FID | 97.5 | | 575-002 |
| Trichlorofluoromethane (Freon 11) | Calculated | | | | 16.65 | | | GC-FID | | | 575-001 or -002 |
| 1,2,3-Trichloropropane | Bilevel | | | | 11.9 | 15 | 8 | GC-FID | 98.1 | | 575-001 |
| alpha, alpha, alpha-Trifluorotoluene | Calculated | | | | 13.4 | | | GC-FID | | | 575-001 or -002 |
| Tridecane | Calculated | | | | 9.2 | | | GC-FID | | | 575-001 or -002 |
| Trifluoromethyl benzene (benzotrifluoride; OXSOL 2000) | Bilevel | | | | 13.3 | 15 | 8 | GC-FID | 106 | | 575-001 |
| Trifluoromethyl benzene (benzotrifluoride; OXSOL 2000) | Bilevel | | | | 13.3 | 15 | 8 | GC-FID | 107 | | 575-002 |
| 1,2,3-Trimethylbenzene | Calculated | | | | 12.0 | | | GC-FID | 91.1 | | 575-001 |
| 1,2,3-Trimethylbenzene | Calculated | | | | 12.0 | 15 | 8 | GC-FID | 93.8 | | 575-002 |
| 1,2,3-Trimethylbenzene | OSHA 1020 | | | | 11.6 | 15 | 4 | GC-FID | 98.3 | | 575-002 |
| 1,2,4-Trimethylbenzene | OSHA 1020 | | | | 11.7 | 15 | 4 | GC-FID | 93.8 | | 575-002 |
| 1,2,4-Trimethylbenzene | Partial | | | | 13.05 | | | GC-FID | 88.4 | | 575-001 |
| 1,2,4-Trimethylbenzene | Partial | 1837 | | | 13.05 | 15 | 8 | GC-FID | 88.9 | | 575-002 |
| 1,3,5-Trimethylbenzene (mesitylene) | Calculated | | | | 12.1 | | | GC-FID | 93.6 | | 575-001 |
| 1,3,5-Trimethylbenzene (mesitylene) | Calculated | | | | 12.1 | | | GC-FID | 96 | | 575-002 |
| 1,3,5-Trimethylbenzene (mesitylene) | OSHA 1020 | | | | 12.1 | 15 | 4 | GC-FID | 101 | | 575-002 |
| 2,2,4-Trimethylpentane | Calculated | | | | 11.89 | | | GC-FID | | | 575-001 or -002 |
| **U** | | | | | | | | | | | |
| n-Undecane | Calculated | | | | 9.62 | | | GC-FID | | | 575-001 or -002 |
| 1-Undecanol | Calculated | | | | 9.59 | | | GC-FID | | | 575-001 or -002 |
| **V** | | | | | | | | | | | |
| Vinyl acetate | Full | 1860 | | 4 C # | 16.4 | 30 | 8 | GC-FID | 92 | | 575-002 |
| Vinyl bromide | Calculated | | | | 19.6 | | | GC-FID | | | 575-001 or -002 |
| Vinyl chloride | Calculated | | | | 21.4 | | | GC-FID | | | 575-001 or -002 |
| Vinyl toluene (methyl styrene) | Calculated | | | | 12.3 | | | GC-FID | | | 575-001 or -002 |
| n-Vinyl-2-pyrrolidone | Calculated | | | | 13.9 | | | GC-FID | | | 575-001 or -002 |
| 4-Vinylcyclohexene | Calculated | | | | 12.4 | | | GC-FID | | | 575-001 or -002 |
| Vinylidene chloride (1,1-dichloroethene) | Bilevel | | | | 12.3 | 60 | 8 | GC-FID | 95.2 | | 575-001 |
| **X** | | | | | | | | | | | |
| m-Xylene | Bilevel | | | 150 # | 12.5 | 15 | 8 | GC-FID | 96.6 | | 575-001 |
| m-Xylene | Bilevel | | | 150 # | 12.5 | 15 | 8 | GC-FID | 101 | | 575-002 |
| m-Xylene | OSHA 1002 | | | 150 # | 13.82 | 15 | 8 | GC-FID | 96.1 | | 575-002 |
| o-Xylene | Bilevel | | | 150 # | 11.9 | 15 | 8 | GC-FID | 91 | | 575-001 |
| o-Xylene | OSHA 1002 | | | 150 # | 14.24 | 15 | 8 | GC-FID | 89.4 | | 575-002 |
| p-Xylene | Bilevel | | | 150 # | 12.8 | 15 | 8 | GC-FID | 95.6 | | 575-001 |
| p-Xylene | Bilevel | | | 150 # | 12.8 | 15 | 8 | GC-FID | 103 | | 575-002 |
| p-Xylene | OSHA 1002 | | | 150 # | 13.94 | 15 | 8 | GC-FID | 95.3 | | 575-002 |
| Xylenes, Total | Partial | | | | 12.64 | 15 | 8 | GC-FID | | | 575-001 or -002 |

## Symbols in the table

| | |
|---|---|
| C | Ceiling value (OSHA PEL columns) |
| # | NIOSH short-term exposure limit (STEL) |
| ‡ | NIOSH recommended exposure limit (REL) |
| EL | Excursion limit |
| Δ | OSHA permissible exposure limits as listed in 29 CFR 1910.1000 |
| ≈ | Short-term (STEL) sampling, 7.5 to 30 minutes; the SKC research report gives the details |
| ∞ | Minimum sampling time depends on the sensitivity of the detector |
| * | Desorption efficiency below the NIOSH-accepted guideline |
| § | Desorption efficiency measured in the SKC Inc. laboratories. Std.: standard desorption solvent; Univ.: SKC Universal Desorption Solvent |

CHAPTER 4

# Ordering information

Order from Analyt-MTC with the order codes. The first code in each group is a pack of 5 samplers.

## Samplers

| Description | Pack | Order code |
|---|---|---|
| **575-001 — ORGANIC VAPOURS, CHARCOAL 350 MG** | | |
| VOC Chek 575 passive sampler for organic vapours, charcoal | 5 | 575-001 |
| | 25 | 575-001A |
| | 100 | 575-001B |
| | 500 | 575-001C |
| **575-002 — ORGANIC VAPOURS, ANASORB 747 500 MG** | | |
| VOC Chek 575 passive sampler for organic vapours, Anasorb 747 | 5 | 575-002 |
| | 25 | 575-002A |
| | 100 | 575-002B |
| | 500 | 575-002C |
| **575-005 — ETHYLENE OXIDE** | | |
| VOC Chek 575 passive sampler for ethylene oxide, Anasorb 747 treated with hydrobromic acid, 500 mg | 5 | 575-005 |
| | 25 | 575-005A |
| **575-006 AND 575-007 — STYRENE, METHANOL** | | |
| VOC Chek 575 passive sampler for styrene, Anasorb 747 coated with tert-butyl catechol, 500 mg | 5 | 575-006 |
| VOC Chek 575 passive sampler for methanol, Anasorb 747, 500 mg | 5 | 575-007 |

## Analysis accessories

| For samplers | Pack | Order code |
|---|---|---|
| 575-001 | 10 | 575-048 |
| 575-002 and 575-007 | 10 | 575-049 |
| 575-005 | 10 | 575-051 |

**Note**

For a compound that is not in the table, or for a combination of compounds, ask Analyt-MTC before you order.

CHAPTER 5

# Contacts

## Help and advice

Analyt-MTC supplies the SKC VOC Chek 575 samplers and helps you choose the sampler for your compound. For validation data behind a sampling rate, ask Analyt-MTC.


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**Before you contact Analyt-MTC**

Have the following at hand so that Analyt-MTC can help you quickly:

- the compound or compounds you want to measure, and any other vapours present;
- the exposure limit you measure against and the sampling time you plan (short-term or full shift);
- the laboratory that will analyse the samples, if already chosen.

**ANALYT-MTC Messtechnik GmbH**

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AMTC-RF-0006 · Rev. 2 · 2026-10

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