# Methyl isobutyl ketone $(CH_3)_2CHCH_2COCH_3$ NO.153L

**Performance**

| | | |
|---|---|---|
| **Measuring Range** | 2.5 to 50 ppm | 50 to 130 ppm |
| **Number of Pump Strokes** | 1 | 1/2 |
| **Correction Factor** | 1 | 2.6 |
| **Sampling Time** | 2 minutes per pump stroke | |
| **Detecting Limit** | 1.5ppm (n=1) | |
| **Colour Change** | Pale yellow ⟶ Pale blue | |
| **Reaction Principle** | $(CH_3)_2CHCH_2COCH_3 + Cr^{6+} + H_2SO_4 \longrightarrow Cr^{3+}$ | |
| **Coefficient of Variation** | 10% (for 2.5 to 10 ppm ), 5% (for 10 to 50 ppm) | |
| **Shelf Life** | 1 Year | |
| **Corrections for temperature & humidity** | Temperature correction is necessary | |
| **Store the tubes at cool and dark place.** | | |

**Possible coexisting substances and their interferences**

| Substance | Concentration | Interference | Change colour by itself |
|---|---|---|---|
| Acrolein | ≦5 ppm | No error | Pale blue stain ≧ 20 ppm |
| Acetone | - | No error | No discolouration |
| Acetic acid | - | No error | No discolouration |
| Ethyl acetate | ≧5 ppm | Plus error | Pale blue stain |
| Diethyl ether | - | Plus error | Pale blue stain |
| Toluene | ≧5 ppm | Plus error | White stain |
| Halogenated hydrocarbons | - | No error | No discolouration |
| Hexane | ≧15 ppm | Plus error | White stain ≧ 15ppm |
| Benzene | - | No error | No discolouration |
| Methanol | ≧5 ppm | Plus error | Pale blue stain ≧ 10 ppm |
| Methyl ethyl ketone | ≧5 ppm | Plus error | White stain ≧ 5ppm |

**Calibration gas generation** Diffusion tube method

| TLV-TWA | TLV-STEL | Explosive range |
|---|---|---|
| 50ppm | 75ppm | 1.2 to 8% |