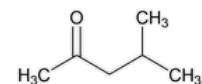


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Methyl Isobutyl Ketone



$C_6H_{12}O$ 100.16

2-Pentanone, 4-methyl-;

4-Methyl-2-pentanone CAS RN®: 108-10-1.

DEFINITION

Methyl Isobutyl Ketone contains NLT 99.0% of methyl isobutyl ketone ($C_6H_{12}O$).

IDENTIFICATION

• **A.** The IR absorption spectrum of a thin film of it between sodium chloride crystals exhibits maxima, among others, at the following wavelengths, in μm : 5.81 (vs), 6.80 (m), 7.00 (m), 7.09 (m), 7.29 (vs), 7.72 (m), 8.06 (m), 8.31 (sh), 8.53 (s), and 8.91 (m).

IMPURITIES

• LIMIT OF NONVOLATILE RESIDUE

Sample: 50 mL

Analysis: Evaporate the *Sample* in a tared porcelain dish on a steam bath, and dry at 105° for 1 h. Weigh the residue.

Acceptance criteria: NMT 4 mg (0.008%)

SPECIFIC TESTS

• **SPECIFIC GRAVITY (841):** NMT 0.799, indicating NLT 99.0% of methyl isobutyl ketone ($C_6H_{12}O$)

• **DISTILLING RANGE, Method I (721):** Between 114° and 117°, a correction factor of 0.046°/mm Hg being applied as necessary

• ACIDITY

Sample: 15.0 mL

Analysis: Mix the *Sample* with 15 mL of neutralized alcohol, add phenolphthalein TS, and titrate with 0.050 N sodium hydroxide.

Acceptance criteria: NMT 0.40 mL is required for neutralization.

ADDITIONAL REQUIREMENTS

• **PACKAGING AND STORAGE:** Preserve in tight containers.

Auxiliary Information - Please [check for your question in the FAQs](#) before contacting USP.

Topic/Question	Contact	Expert Committee
METHYL ISOBUTYL KETONE	Documentary Standards Support	SE2020 Simple Excipients
REFERENCE STANDARD SUPPORT	RS Technical Services RSTECH@usp.org	SE2020 Simple Excipients

Chromatographic Database Information: [Chromatographic Database](#)

Most Recently Appeared In:

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