

**Acetone**

**Grade:** ACS/USP/NF/EP/BP

**Catalog number:** ZP3290000EP

| Test                           | Mono-graph | Specification  | Typical Result |
|--------------------------------|------------|--|----------------|
| Assay (corrected for water)    | ACS        | NLT 99.5%  | 99.71 %        |
| Assay (on the anhydrous basis) | NF         | NLT 99.0%  | 99.98 %        |
| Color (APHA)                   | ACS        | 10 max.  | 1              |
| Appearance                     | ACS        | Clear liquid with characteristic odor  | Pass           |
| Appearance of Solution         | EP/BP      | The solution is clear and colorless  | Pass           |
| Characters                     | EP/BP      | Appearance: volatile, clear, colorless liquid. Solubility: miscible with water and with ethanol (96 per cent).The vapour is flammable. | Pass           |
| Residue after Evaporation      | ACS        | 0.001%, max  | 0.000 %        |
| Nonvolatile Residue            | NF         | NMT 2 mg/50mL (0.004%)   | 0 mg           |
| Residue on Evaporation         | EP/BP      | 50 ppm, max  | 0 ppm          |
| Acidity or Alkalinity          | EP/BP      | To Pass Test   | Pass           |
| Solubility in Water            | ACS        | The solution remains clear for 30 min.   | Pass           |
| Titration Acid                 | ACS        | 0.0003 meq/g, max  | 0.0000 meq/g   |
| Acidity or Alkalinity          | EP/BP      | To Pass Test   | Pass           |
| Titration Base                 | ACS        | 0.0006 meq/g, max  | 0.0000 meq/g   |
| Aldehyde (as HCHO)             | ACS        | 0.002%, max  | LT 0.002 %     |
| Isopropyl Alcohol              | ACS        | 0.05%, max   | 0.00%          |

| Test  | Mono-graph | Specification  | Typical Result |
|---|------------|--|----------------|
| Related Substances<br>Impurity<br>B – Isopropanol | EP/BP      | NMT 0.05% (v/v)  | 0.00 %         |
| Methanol  | ACS        | 0.05%, max   | 0.02 %         |
| Related Substances<br>Impurity<br>A - Methanol    | EP/BP      | NMT 0.05% (v/v)  | 0.02 %         |
| Related Substances<br>Impurity C – Benzene        | EP/BP      | NMT 2ppm (v/v)   | 0 ppm          |
| Related Substances -<br>Any other impurity        | EP/BP      | NMT 0.05% (v/v)  | 0.00 %         |
| Matter Insoluble in Water                         | EP/BP      | The solution is clear                                      | Pass           |
| Substances Reducing<br>Permanganate               | ACS        | To Pass Test   | Pass           |
| Reducing substances                               | EP/BP      | To Pass Test   | Pass           |
| Water   | ACS        | 0.5%, max  | 0.27 %         |
| Water   | NF         | 0.5%, max  | 0.27 %         |
| Water   | EP/BP      | NMT 3g/L   | 2.2 g/L        |
| Identification A - Infrared<br>Absorption         | NF         | Conforms to Infrared Spectra                               | Pass           |
| Identification B - GC                             | NF         | Conforms to Reference<br>Chromatogram                      | Pass           |
| Identification A - Relative<br>Density            | EP/BP      | 0.790 - 0.793 @ 20°C                                       | 0.791          |
| Identification B                                  | EP/BP      | An intense red color is<br>produced, and becomes<br>violet | Pass           |
| Identification C                                  | EP/BP      | A greenish-blue color is<br>produced                       | Pass           |
| Specific Gravity @ 25°C                           | NF         | NMT 0.789  | 0.787          |
| Readily Oxidizable<br>Substances                  | NF         | To Pass Test   | Pass           |

**Certification and Compliance Statements**

This product complies with all of the current requirements listed in the National Formulary, European Pharmacopoeia, and British Pharmacopoeia monographs.

This product is not derived, nor does it come in contact with, any materials derived from bovine or other animal sources.

No chemicals whatsoever are used as solvents at any point in the manufacture, processing, or packaging of Acetone. Acetone may contain trace amounts of Benzene. Benzene is not used as a solvent but may appear in Acetone as a by-product. The typical level for Benzene content in Acetone is <2ppm. Class 2 and Class 3 residual solvents may appear as impurities / related substances / low level contaminants in Acetone. Concentration of Class 2 Option 1 and Class 3 residual solvents is below limits in the current USP/NF General Chapter <467> and ICH Q3C Impurities: Residual Solvents.

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