

<u>IS 14364 : 2024</u> <u>Quaternary Ammonium Compound Based Surface Cleaner, Liquid —</u> <u>Specification</u>

QACs (Quaternary Ammonium Compound) based **surface cleaners** are meant to clean hard surfaces while also having **antibacterial properties** which helps to reduce the malodour caused due to decomposition of organic matters present on hard surfaces i.e., kitchen, table tops, floors in kitchen and bathroom, etc.

QACs, like benzalkonium chloride, cetyl pyridinium chloride etc. adds an antibacterial effect that conventional soap-based cleaners lack, taking them suitable for environments that require high standards of **cleanliness**.

To satisfy consumer's expectations, surface cleaners should have effective cleaning ability, antibacterial efficacy, pleasant fragrance, stable over time and under various temperature conditions, free from sedimentation or cloudiness, and leave surfaces streak-free and residue-free. In addition, cleaners should also be **user-friendly**, packaged safely, and labelled with clear instructions for use and handling.

This standard outlines specific requirements such as the minimum concentration of QACs to ensure antibacterial properties, **pH and non-volatile matter content** to ensure the stability of product upon dilution.

Key specification includes the method for testing **cleaning effectiveness**, where the cleaner is applied to a test tile and assessed by a panel for its performance against a control sample (water). Furthermore, the standard mandates that the product must not leave streaks or powdery residues after use and should maintain its properties for at least two years.

With regard to safety and ease of use, this standard specifies packaging and marking requirements such as proper container with pilfer-proof cap, source identification, batch number, manufacturing date, usage instructions and a **cautionary label** "DO NOT MIX WITH HOUSEHOLD SOAP AND DETERGENTS.

This standard plays a crucial role in standardizing the quality of QAC based surface cleaners that align with consumer expectations for **hygiene**, **safety**, **and performance**.