Indian Standard

METHODS FOR PERFORMANCE TESTS FOR SURFACE ACTIVE AGENTS

PART III FOAMING POWER

0. FOREWORD

0.1 This Indian Standard (Part III) was adopted by the Indian Standards Institution on 2 November 1970, after the draft finalized by the Soaps and Other Surface Active Agents Sectional Committee had been approved by the Chemical Division Council.

0.2 For a practical and realistic evaluation of quality of the class of products known as surface active agents, performance tests constitute the ideal yardstick. Physico-chemical analysis alone is inadequate. However, in actual practice uniform procedures have not been evolved so far for carrying out these tests and the results obtained are, therefore, not reproducible. The Sectional Committee responsible for the preparation of this standard felt that publication of the test methods in the form of an Indian Standard would promote adoption of uniform procedures within the country. The test methods, which are based on available data and current practices, are expected to be revised from time to time to improve their precision and accuracy.

0.2.1 In view of the poor reproducibility of these methods, these are presently being published as a starting point for collection of experience and data. It is expected that after these have been adequately improved upon, these will form the basis of corresponding requirements in the material specifications for surface active agents.

1. SCOPE

1.1 This standard (Part III) prescribes two methods for the measurement of the foaming power of a surface active agent. The methods are applicable to all surface active agents. Method A, known as the Ross-Miles method, shall be the referee method and shall be used in case of any dispute. Method B shall be the alternate method.

1.1.1 Measurement of the foaming power of solutions of readily hydrolysable surface active agents by these methods does not give reliable results, as the hydrolysis products collect in the films of liquid and affect the persistence of the foam.

NOTE — The persistence of liquid films is very sensitive to the presence of particles of insoluble matter. This method of measurement of foaming power should be used only with the greatest of care, for measuring the foaming power of compositions based on surface active agents of which the solubility is rarely complete. Foaming power is also very sensitive to small variations in composition. Consequently, the results obtained on formulated products should be interpreted with caution.

1.1.2 The methods are not applicable for measurement of the foaming power of very dilute solutions of surface active agents, such as river water containing surface active agents.