



Standard Guide for Two Sensory Descriptive Analysis Approaches for Skin Creams and Lotions¹

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1. Scope

1.1 The objective of this guide is to provide procedures for two different descriptive analysis approaches that may be used to qualitatively describe the sensory attributes of skin creams and lotions and quantitatively measure their intensity, similarities, and differences over time. Descriptive analysis can be used to define the sensory experience of skin care products that can then be used to provide direction in product formulation, competitive assessment, ingredient substitutions, research guidance, and advertising claim substantiation.

1.2 Guidelines are provided to assist the reader in determining which approach best meets their research objectives, either the (1) technical expert or (2) consumer behavior approach to language development and evaluation.

1.3 Guidelines are provided for the selection and training of assessors, defining sensory attributes, measuring intensities on rating scales, developing procedures for the manipulation of the product alone and the product on the skin, product handling, and evaluation of skin condition before testing.

1.4 *Units*—The values stated in inch-pound units are to be regarded as the standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.5 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:²

¹ This guide is under the jurisdiction of ASTM Committee E18 on Sensory Evaluation and is the direct responsibility of Subcommittee E18.07 on Personal Care and Household Evaluation.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

E253 Terminology Relating to Sensory Evaluation of Materials and Products

MNL 13 Manual on Descriptive Analysis Testing for Sensory Evaluation

MNL 26 Sensory Testing Methods: Second Edition

3. Terminology

3.1 Terms used in this guide are in accordance with Terminology E253.

3.2 Definitions:

3.2.1 *application*, *n*—process of applying the skin care product.

3.2.2 *delivery*, *n*—stage during which the product is discharged onto the finger(s) or skin.

3.2.3 *panel leader/moderator*, *n*—person who is responsible for conducting descriptive panels, protocols, and panel maintenance.

3.2.4 *pick-up*, *n*—stage during which the product is manipulated between the fingers, as it might be after the product is dispensed onto the finger or lifted from a jar.

3.2.5 *reference anchors*, *n*—products that are used to define intensities of a specific attribute.

3.2.6 *rub-out*, *n*—stage during which the product is rubbed onto the skin.

4. Summary of Guide

4.1 *Overview*—This guide describes two approaches to the descriptive analysis of skin care products; technical expert and consumer behavior approaches. The appropriate approaches for identifying, selecting, and training of assessors to evaluate the intensity and duration of sensory characteristics for skin care products are discussed. See Table 1.

4.1.1 *Technical Expert Approach*—The technical expert approach for descriptive analysis is based in the training of assessors on lexicon(s) and intensity references to create a panel that performs as a calibrated human instrument. This method uses a trained panel using descriptors that focus on appearance and tactile qualities of products. Additionally, evaluation of product fragrance can be performed using either the same panel or a separate panel. In both cases, the panel