

**SAUDI STANDARDS, METROLOGY AND QUALITY
ORGANIZATION (SASO)**

Project No. 33539:2024
Anti-Static Spray for Fabrics (Aerosol)

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Anti-Static Spray for Fabrics

1. Scope

This Saudi standard specifies the use of the Anti-Static spray for fabric the form of an aerosol used to remove static electricity in clothing.

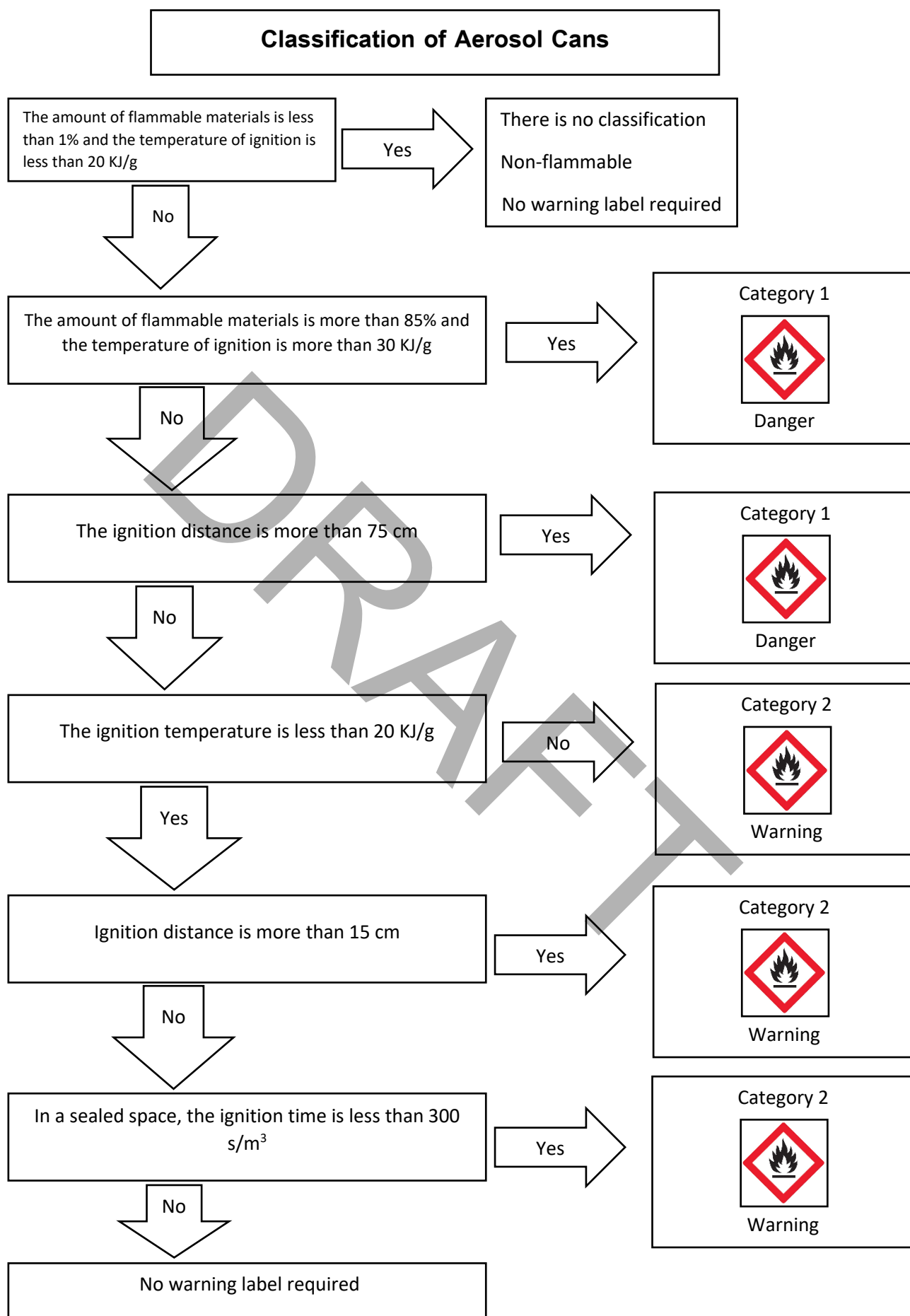
2. Complementary Reference

- 2.1 SASO-GSO-917 "Aerosol Dispensers"
- 2.2 SASO-1327-GSO-660 "Methods of Testing Aerosol Air Fresheners"
- 2.3 SASO-ISO-6388 "Surface active agents - Determination of flow properties using a rotational viscometer"
- 2.4 SASO-ISO-649-2 "Laboratory glassware - Density hydrometers for general purposes – Part 2: Test methods and use"
- 2.5 SASO-ASTM-D5806 "Standard Test Method for Disinfectant Quaternary Ammonium Salts by Potentiometric Titration"

3. Safety Classification of Aerosol Can

Aerosol containers must be classified according to their flammability when in use. This is done using the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). In classifying aerosol cans, temperature and distance of ignition results must be determined.

- 3.1 If the temperature of ignition is less than 20 KJ/g, and the ignition distance is between 15 cm and 75 cm. The aerosol is classified as a flammable liquid.
- 3.2 If the temperature of ignition is less than 20 KJ/g, and the ignition distance is more than 75 cm. The aerosol is classified as a highly flammable liquid.
- 3.3 If the temperature of ignition is less than 20 KJ/g, and there is no ignition at a distance of more than 75 cm, then the ignition test is performed in a sealed space. If the ignition time is less than or equal to 300 s/m³, the aerosol is classified as a flammable liquid. If the ignition time is more than 300 s/m³, the aerosol is classified as non-flammable.
- 3.4 If the temperature of ignition is greater than 20 kJ/g at a distance of 75 cm or more, the aerosol is classified as a highly flammable liquid. Otherwise, the aerosol is classified as non-flammable.



4. General Requirements

- 4.1 The product should be homogeneous, colorless liquid.
- 4.2 It must not contain any unwanted odor.
- 4.3 It should not cause stains on fabrics when used.
- 4.4 No change in the properties of the fabrics (expansion/contraction, change in color or texture).
- 4.5 The aerosol must be in accordance with the standard specifications mentioned in clause 1/2.
- 4.6 It must not contain formaldehyde or any hazardous materials in accordance with clause 2/2.
- 4.7 Environmentally friendly propellants must be used, and chlorofluorocarbons should not be used, accordance with clause 2/2.
- 4.8 The product must be stable when stored and kept in its original packaging, under the storage conditions recommended by the supplier, such as temperature, humidity and exposure to direct sunlight, for at least one year from the date of manufacture.
- 4.9 The product components must not interact with the packaging.

5. Chemical Requirements

- 5.1 Active ingredient: The active ingredient must be at least 1%.
- 5.2 Viscosity: The viscosity of the product must be at least 1 cP at 25 °C.
- 5.3 Density: The density of the product must be at least 0.60 g/cm³ at 25°C.
- 5.4 Perfume can be added to the formula.

6. Sampling

- 6.1 Samples are kept in their original packaging.
- 6.2 The packaging must be marked with full details of the sample.
- 6.3 Each consignment is divided into similar groups that have the same size, batch number, and production date.
- 6.4 From each group, a number of units are drawn randomly according to Table (1) below:

Table (1) Number of units to be extracted from each group

Consignment size	Number of samples drawn
3 – 50	3
51 – 200	4
201 – 400	5
401 – 640	6
More than 640	7

7. Test Methods

The following tests shall be performed on the samples drawn in accordance with clauses 3, 4 and 5.

- 7.1 Aerosol containers are tested in accordance with the Saudi standard mentioned in Clause 2/1.
- 7.2 Testing for the absence of formaldehyde or any hazardous materials in accordance with clause 2/2.
- 7.3 Testing environmentally friendly propellant materials and not using chlorofluorocarbons in accordance with clause 2/2
- 7.4 Viscosity is determined according to the Saudi standard mentioned in clause 2/3.
- 7.5 Density is determined in accordance with the Saudi standard mentioned in Clause 2/4.
- 7.6 The percentage of the active ingredient is determined in accordance with the Saudi standard mentioned in clause 2/5.
 - 7.6.1 It can be one of the following materials: Or any other material that is developed and meets the requirements and specification of Anti-static spray for fabrics.
 - Quaternary Ammonium Salt
 - Ammonium Acetate
 - 7.6.2 The percentage of the active ingredient can be determined also by using Spectrophotometer.

8. Packaging

The product is packed in suitable clean, dry, tightly sealed containers that do not interact or affect the product. It is ensured that the aerosol cans are in accordance with the specifications mentioned in Clause 2/1.

9. Explanatory Data

The following information must be clearly stated on each package, in Arabic or in Arabic and English, in a manner that is difficult to remove:

- 9.1 Name of the product and its type
- 9.2 The name and address of the manufacturer and/or his trademark, or both.
- 9.3 Components "Components and numbers can be written in English"
- 9.4 Production date and batch number (numbers can be written in English)
- 9.5 Country of origin or whether the product is manufactured under a license from a registered trademark.
- 9.6 Net weight (g - kg) or volume (liter - milliliter) (numbers can be written in English)
- 9.7 Precautions, warnings and first aid (if any). Written or through illustrations.

Reference

- National Factory
- The Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

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