



Designation: D8441/D8441M – 22

Standard Specification for International Symbol for Identifying Consumer Products Containing Intoxicating Cannabinoids¹

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1. Scope

1.1 This specification establishes an international symbol applicable to all products containing intoxicating cannabinoids at a quantity or concentration sufficient to have a warning deemed necessary by the authority having jurisdiction (AHJ).

1.2 This specification shall apply to all finished products that are intended for consumer use, which includes topical use, ingestion, inhalation, and any/all other methods of adsorption on or in the body of a human or animal.

1.3 This specification provides uniformity in identifying potential health and safety hazards associated with exposure to a substance that may cause intoxicating (that is, mind or consciousness altering, or both) effects.

1.4 This specification seeks to ensure visual clarity and consistency, which results in improvement of recognition and comprehension for the end user.

1.5 *Units*—The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system are not necessarily exact equivalents; therefore, to ensure conformance with the standard, each system shall be used independently of the other, and values from the two systems shall not be combined.

1.6 *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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.7 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

¹ This specification is under the jurisdiction of ASTM Committee D37 on Cannabis and is the direct responsibility of Subcommittee D37.04 on Processing and Handling.

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2. Referenced Documents

2.1 *ASTM Standards*:²

D8270 [Terminology Relating to Cannabis](#)

2.2 *ANSI Standard*:³

[ANSI Z535.1-2017 Safety Colors](#)

2.3 *ICD Standard*:⁴

[ICD-10 Classification of Mental and Behavioural Disorders; clinical descriptions and diagnostic guidelines](#)

2.4 *ISO Standard*:⁵

[ISO 3864-1:2011 Graphical symbols—Safety colours and safety signs—Part 1: Design principles for safety signs and safety markings](#)

[ISO 3864-2:2016 Graphical symbols—Safety colors and safety signs—Part 2: Design principles for product safety labels](#)

[ISO 3864-3:2012 Graphical symbols—Safety colors and safety signs—Part 3: Design principles for graphical symbols for use in safety signs](#)

3. Terminology

3.1 *Definitions*:

3.1.1 *acute intoxication, n*—transient condition following the administration of alcohol or other psychoactive substance resulting in disturbances in level of consciousness, cognition, perception, affect or behavior, or other psychophysiological functions and responses. **ICD-10**

3.1.2 *intoxicating cannabinoid(s), n*—cannabinoids that typically elicit acute intoxication.

3.1.2.1 *Discussion*—See [Annex A1](#) for examples of intoxicating cannabinoids.

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.

³ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.

⁴ World Health Organization (WHO), International Statistical Classification of Diseases and Related Health Problems (ICD).

⁵ Available from International Organization for Standardization (ISO), ISO Central Secretariat, Chemin de Blandonnet 8, CP 401, 1214 Vernier, Geneva, Switzerland, <http://www.iso.org>.

3.1.3 *non-intoxicating cannabinoid(s), n*—cannabinoids that do not typically elicit acute intoxication.

4. Significance and Use

4.1 This specification shall provide symbol specifications that can be used as acceptance criteria for verifying an intoxicating consumer cannabis product’s packaging including the appropriate symbol for the product contents.

4.2 The user of this specification shall be responsible for evaluating an intoxicating consumer cannabis containing product’s symbol requirements and conformance with these specifications.

5. Specifications

5.1 *General*—The international intoxicating cannabinoid product symbol (IICPS) shall consist of a black silhouette of a stemmed cannabis leaf contained within a black-bordered, equilateral yellow triangle with radiused outer corners. When used on a dark background, the IICPS shall be outlined in yellow. See also Fig. 1.

5.2 *Symbol*—The symbol shall consist of a combination of a black triangular border, yellow triangular element field, and a black standardized cannabis leaf icon.

5.3 Identifying Elements:

- 5.3.1 Yellow border (only necessary on dark background),
- 5.3.2 Black border,
- 5.3.3 Yellow element field,
- 5.3.4 Black standard cannabis leaf icon,
- 5.3.5 Seven leaflets with serrated edges, and
- 5.3.6 Curved stem.

5.4 Dimensions:

5.4.1 *Complete Symbol*—For all but the smallest containers, the recommended minimum width of the black triangle is 12.7 mm [0.5 in.]. For cartridges and other small items, the IICPS shall be no less than 80 % of the smallest dimension of each principal display panel but under no circumstances shall the minimum width of the black triangle be less than 10 mm [0.39 in.].

5.4.2 *Warning Sign Element*—The leaf element shall be contained within an ISO-3864-compliant “Warning sign” con-

sisting of a black-bordered, equilateral yellow triangle with radiused outer corners. The width of the black border shall be 6 % of the width of the triangle ($w \times 0.06$, ISO 3864-1, §6.4). The outer corners of the triangle shall be radiused such that a triangle with a width of 70 mm [2.76 in.] shall have a corner radius of 2 mm [0.08 in.] (ISO 3864-1, §6.4). The width of an imaginary unradiused version of the black triangle shall have a width that is 4 % larger than the width of the IICPS ($w \times 1.04$, ISO 3864-1, §6.4). See also Fig. 2.

5.4.3 Cannabis Leaf Element:

5.4.3.1 The graphical symbol contained within the IICPS shall be a black silhouette of a stemmed leaf of *Cannabis sativa* L. with seven serrated marquis-shaped leaflets arranged in order of size with the largest on top and the smallest on the bottom. Excluding the stem, the leaf shall have vertical line symmetry.

5.4.3.2 Leaflets shall have a shape and size that is typical of the mature leaves of the cannabis plant. Specifically, the width of the central leaflet shall be 17 % of its length, and the width of the side leaflets shall be within 20–22 % of their respective lengths. The side leaflets shall be paired so there shall be four different sizes of leaflets. Specifically, the lengths of the leaflets relative to the symbol width shall be (from largest to smallest leaflet) 43, 31, 26, and 15 % ($w \times 0.43$, $w \times 0.31$, $w \times 0.26$, and $w \times 0.15$). The lateral serrations on each side of each leaflet shall number (from largest to smallest leaflet) 13, 11, 9, and 5.

5.4.3.3 The stem shall have a superior semicircular terminus with a radius that is 0.05 % of the symbol width and a center in which the leaflets converge. The stem shall point downward and curve toward the right, flaring slightly, with an inferior terminus that has the appearance of a slightly diagonal cut through the stem. The vertical height of the stem shall be 8 % of the symbol width.

5.4.3.4 The leaf element shall not cover more than 50 % of the yellow area within the triangle (ISO 3864-1, §6.4), nor shall it have a maximum width less than 50 % of the width of the IICPS ($w \times 0.5$). See also Fig. 2.

5.4.4 *Exclusion Zone*—The cannabis leaf shall be contained completely within an exclusion zone, set within the black triangle, which has a width equal to 3.3 % of the symbol height ($h \times 0.033$, ISO 3864-3, §7.4.4). See also Fig. 2.



FIG. 1 International Intoxicating Cannabinoid Product Symbol (IICPS) against Light and Dark Backgrounds