



Designation: F2061 – 17

# Standard Practice for Chemical Protective Clothing: Wearing, Care, and Maintenance Instructions<sup>1</sup>

This standard is issued under the fixed designation F2061; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

## 1. Scope

1.1 This practice describes the recommended minimum information to be conveyed by the manufacturers or sellers to buyers or end users for the wearing, care, and maintenance of chemical protective clothing.

1.1.1 This practice does not cover specific instructions for how to select and when to use protective clothing or design requirements.

1.1.2 This practice does not apply to protective clothing that is solely intended for protection against flame and thermal hazards.

1.2 Information provided by this practice aids organizations that select and use chemical protective clothing in their implementation of requirements established in Sections 10 and 11 of Practice F1461.

1.3 *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.*

1.4 *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.*

## 2. Referenced Documents

2.1 *ASTM Standards:*<sup>2</sup>

D5489 Guide for Care Symbols for Care Instructions on Textile Products

F1301 Practice for Labeling Chemical Protective Clothing

<sup>1</sup> This practice is under the jurisdiction of ASTM Committee F23 on Personal Protective Clothing and Equipment and is the direct responsibility of Subcommittee F23.30 on Chemicals.

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<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

F1461 Practice for Chemical Protective Clothing Program

F1494 Terminology Relating to Protective Clothing

2.2 *ANSI Standard:*<sup>3</sup>

Z535.4 Standard for Product Safety Signs and Labels, 1991

## 3. Terminology

3.1 For definitions of terms used in this practice related to protective clothing, refer to Terminology F1494.

3.2 *Definitions:*

3.2.1 *care, n*—procedures for cleaning, sterilization, decontamination, and storage of protective clothing.

3.2.2 *contamination, n*—the addition of an undesired chemical or substance to the protective clothing.

3.2.3 *decontamination, n*—the reduction, removal, or neutralization of a contaminant or contaminants from protective clothing to the extent necessary to safely permit the protective clothing to be doffed (taken off), reused, or discarded.

3.2.4 *degradation, n*—a deleterious change in one or more properties of a material.

3.2.5 *disinfection, n*—a process that uses a type of antimicrobial agent that destroys or irreversibly inactivates fungi and bacteria, but not necessarily their spore, on inanimate surfaces and objects.

3.2.5.1 *Discussion*—Disinfectants such as antimicrobial agents are considered pesticides and are subject to regulations established by the U.S. Environmental Protective Agency.

3.2.6 *end user, n*—the entity or organization whose employees ultimately wear the protective clothing.

3.2.7 *maintenance, n*—procedures for inspection, service, and repair of protective clothing, including the determination for removal from service.

3.2.8 *manufacturer, n*—the entity that directs and controls any of the following: protective clothing design, protective clothing manufacturing, or protective clothing quality assurance; or the entity that assumes the liability for the protective clothing or provides the warranty for the protective clothing.

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

3.2.9 *protective clothing, n*—an item of clothing that is specifically designed and constructed for the intended purpose of isolating all or part of the body from a potential hazard; or isolating the external environment from contamination by the wearer of the clothing.

3.2.9.1 *Discussion*—For the purpose of this guide, the applicable protective clothing is principally intended to provide protection from chemicals and other hazardous substances.

3.2.10 *sanitization, n*—a process that uses a type of antimicrobial agent that reduces, but not necessarily eliminates, microorganisms from the inanimate environment to levels considered safe as determined by public health codes or regulations.

3.2.10.1 *Discussion*—Sanitizers are considered pesticides and are subject to regulations established by the U.S. Environmental Protection Agency. In general, a sanitizer is judged effective when it reduces the number of microorganisms by 99.9 % under specified testing conditions.

3.2.11 *storage life, n*—the length of time that protective clothing can remain in storage, presuming that the protective clothing has undergone proper care and maintenance in accordance with the manufacturer’s instructions but has not been used either in training or at actual incidents.

3.2.12 *wearing instructions, n*—procedures for donning, doffing, fitting, and adjusting protective clothing and preparing protective clothing for use.

#### 4. Significance and Use

4.1 This practice describes the minimum information to be provided by the manufacturer or seller to the buyer or end user related to the wearing, care, and maintenance of chemical protective clothing. Adherence to this practice allows written information to be provided with the protective clothing to purchasers by means of labels (such as labels complying with Practice **F1301**), pamphlets, or other documents.

4.2 Not every element of this practice may be applicable to all chemical protective clothing components or configurations. It is the manufacturer’s or seller’s responsibility to determine which portions of this practice, and the corresponding requirements, are applicable to their chemical protective clothing products. For informational requirements that are not applicable because of the nature of the product and intended use, the manufacturer or seller is to indicate and describe those portions or requirements that are not applicable.

4.3 All information related to wearing, decontamination, care, and maintenance are required to be written in a manner so that the end user can readily understand the details. To emphasize important limitations, bold lettering and explicit warning terminology (for example, signal words such as ‘danger,’ ‘warning,’ and ‘caution’ (described in ANSI Z535.4)) are to be used. Where possible, pictograms and illustrations are required to convey specific instructions. In addition, the use of symbols, such as those provided in the care of textile products in Guide **D5489**, are appropriate for indicating specific care procedures used in cleaning protective clothing where applicable.

#### 5. General Information and Information Related to Wearing Instructions

5.1 *Address and Point-of-Contact Information*—The manufacturer or seller shall provide an address, a contact telephone number, and means of electronic communication, as applicable, for questions concerning the proper use, limitations, decontamination, care, and maintenance of the protective clothing. Provision of a toll-free emergency number is encouraged but not required.

5.2 *Safety Considerations, Limitations of Use, and Warranty Information*—The manufacturer or seller shall provide a list of considerations for the safe use of the protective clothing and describe specific limitations for the use of the protective clothing. As appropriate for the intended use of the protective clothing, the manufacturer or seller shall provide appropriate warnings related to the use of the protective clothing product (for example, CONDUCT A HAZARD AND RISK ASSESSMENT TO DETERMINE THE SUITABILITY OF THIS PROTECTIVE CLOTHING FOR ITS INTENDED USE; DO NOT USE THIS PROTECTIVE CLOTHING NEAR OPEN FLAME OR HIGH HEAT; FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN SERIOUS INJURY OR DEATH). It is recommended that warnings be highlighted using bold text and explicit terminology, such as the signal words ‘danger,’ ‘warning,’ and ‘caution,’ as described in ANSI Z535.4.

5.3 *Warranty*—The manufacturer or seller shall provide the warranty statement and any associated information for the protective clothing.

5.4 *Pre-Use Information*—The manufacturer or seller shall provide information related for how to mark the protective clothing for purposes of identification by the end-user organization, how to use specific product aids such as closure lubricants or visor antifog agents, and recommended undergarments and associated equipment to be worn with the protective clothing, as applicable. A statement shall be provided to the buyer or end user that not all performance properties for the protective clothing can be evaluated in the field.

5.5 *Sizing Information*—The manufacturer or seller shall indicate the types and number of sizes available for the protective clothing and provide information for the selection of the correct size of the protective clothing by the end user and describe any adjustments that can be made for properly sizing the protective clothing.

NOTE 1—One way of presenting this information is by using a chart indicating the appropriate size for ranges in key end-user dimensions, such as height and waist circumference for full-body garments.

5.6 *Donning and Doffing Instructions*—The manufacturer or seller shall provide instructions to the buyer or end user on the proper donning (putting on and wearing) and doffing (removal) of the protective clothing. This doffing information shall include the specific warnings about preventing cross contamination of other personnel, equipment, and street clothing, or to the individual wearer, as required. The manufacturer or seller shall provide alternative instructions as needed for removal of the protective clothing when contaminated with chemicals or other hazardous substances.