

A N S I / I S E A

103-2010

American National Standard for Classification and Performance Requirements for Chemical Protective Clothing

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Secretariat
International Safety Equipment Association

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American National Standard

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Foreword (This Foreword is not part of American National Standard ANSI/ISEA 103-2010)

The Occupational Safety and Health Administration (OSHA) revised its standard on personal protective equipment (29 CFR 1910.132) in 1994. Expanded and updated, the regulation now requires the employer to conduct documented hazard assessments within the workplace to identify the need for personal protective equipment (PPE). As part of this assessment process the employer must now document the selection of the PPE deemed "appropriate" for the recognized hazard. Although OSHA provides references to many applicable performance-based standards for certain types of PPE (e.g., eye and face protection), there is a void in its regulation with respect to the performance of chemical protective clothing used within general industry. While the National Fire Protection Association (NFPA) had previously addressed clothing worn for hazardous materials emergency response operations under its standards NFPA 1991, 1992, and 1994, no standard existed for the majority of chemical protective clothing worn by the US workforce.

To help bridge the gap in information and performance-based testing criteria, members of ISEA Protective Apparel Group developed this standard that presents a testing philosophy based on garment category and performance level. This approach was modeled after activities ongoing within the European (CEN) and International (ISO) standards communities, and represents one of the first attempts at harmonizing testing and labeling of chemical protective clothing worldwide. Garment categories (e.g., Category 1, gas-tight) are defined by matching expected chemical exposure scenario with various material swatch and finished garment item test requirements. This standard uses multiple performance levels (e.g., three levels of performance for permeation testing) for the majority of properties. The immediate benefit of this standard to the industry is that it provides the end-user with a tool that helps define "adequate protection" by matching their unique exposure scenario to a specific garment configuration (Category) and a minimum level of performance (Level).

The ANSI/ISEA 103 standard is applicable to the vast majority of chemical protective clothing used within industry including, but not limited to, the following applications: agricultural, chemical processing, hazardous materials remediation, pharmaceuticals operations, paint spraying, tank cleaning, laboratory operations, cleanroom operations, petrochemical operations, waste collection/recycling, general manufacturing, bulk chemical transfer/handling operations, general maintenance and clean-up operations.

Suggestions for the improvement of this standard are welcome. They should be sent to the ISEA, 1901 N. Moore Street, Suite 808, Arlington, VA 22209; e-mail <u>standards@safetyequipment.org</u>.

This standard was processed and approved using consensus procedures prescribed by the American National Standards Institute. The following organizations were contacted prior to the approval of this standard. Inclusion in this list does not necessarily imply that the organization concurred with the submittal of the proposed standard to ANSI.

Bayer Corporation Chemical Manufacturers Association The Chlorine Institute The Dow Chemical Company Halliburton Energy Services HEPACO International Association of Firefighters International Association of Hazardous Materials Trainers International Personnel Protection, Inc. International Safety Equipment Association Intertek Kraft Foods, Inc. Lakeland Industries, Inc. Medline Miami Township, Dept. of Fire and EMS National Institute for Occupational Safety and Health PPG Industries Precision Fabrics Group Safety Equipment Institute Shaw Environmental and Infrastructure Synthetic Organic Chemical Manufacturers Association Texas Engineering Extension Service Texas Instruments TIAX, LLC University of Texas Waste Equipment Technology Association

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