



Designation: E1542 – 18

Standard Terminology Relating to Occupational Health and Safety¹

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1. Scope

1.1 This terminology standard provides a compilation of consensus definitions of terms used in ASTM occupational safety and health standards.

1.2 This terminology standard does not purport to be an exhaustive lexicon. Rather it defines terms relevant to occupational health and safety.

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:*²

C162 Terminology of Glass and Glass Products

E1132 Practice for Health Requirements Relating to Occupational Exposure to Respirable Crystalline Silica

E1575 Practice for Pressure Water Cleaning and Cutting

E2238 Guide for Evacuation Route Diagrams

E2349 Practice for Safety Requirements in Metal Casting Operations: Sand Preparation, Molding, and Core Making; Melting and Pouring; and Cleaning and Finishing

E2350 Guide for Integration of Ergonomics/Human Factors into New Occupational Systems

E2523 Terminology for Metalworking Fluids and Operations

E2565 Guide for Consensus-based Process for an Occupational Safety and Health Standard that Includes an Occupational Exposure Guideline

E2625 Practice for Controlling Occupational Exposure to Respirable Crystalline Silica for Construction and Demolition Activities

E2875 Guide for Personal Protective Equipment for the Handling of Flat Glass

E2920 Guide for Recording Occupational Injuries and Illnesses

F1494 Terminology Relating to Protective Clothing

3. Terminology

3.1 Health and safety terms specific to metalworking fluids and the metalworking environment are found in Terminology E2523.

3.2 *Generic Terms and Their Definitions:*

3.2.1 *ceiling limit*—an exposure which shall not be exceeded during any part of the workday. If instantaneous monitoring is not feasible, then the ceiling limit shall be assessed as a 15-min time-weighted average exposure which shall not be exceeded at any time over a working day, except for substances which cause immediate irritation upon short exposure.

3.2.2 *occupational exposure limit XXXXX, “generic”*—the maximum time-weighted average (TWA) concentration to which nearly all workers may be repeatedly subjected for a normal 8- to 10-h workday, 40-h workweek, without known adverse health effects.

3.2.3 *short-term exposure limit (STEL)*—the 15-min time-weighted average exposure which shall not be exceeded at any time during a workday, even if the occupational exposure limit is not exceeded. Exposures above the occupational exposure limit up to the STEL should not be longer than 15 min and should not occur more than four times per day. The minimum interval between these exposures should be 60 min.

3.2.3.1 *Discussion*—The phrase “nearly all workers” only excludes those who are hypersensitive to substance exposure or who have known medical conditions which may be aggravated by substance exposure. Thus, most workers are included in the group in which no adverse health effects are expected. The phrase “a normal 8- to 10-h workday, 40-h workweek” refers to the type of work being done, that is, what is usually done from

¹ This terminology is under the jurisdiction of ASTM Committee E34 on Occupational Health and Safety and is the direct responsibility of Subcommittee E34.01 on Terminology.

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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.