



Standard Guide for Assessment of Materials and Products for Declarable Substances¹

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1. Scope

1.1 This guide uses case studies to illustrate the decision process to assess materials and products for declarable substances when evaluating conformance to relevant requirements. This may be accomplished by applying existing knowledge to determine the need for further action (for example, testing).

1.2 This guide is limited to the referenced European Union directives. Other regions, countries, states or local municipalities may adopt these or similar regulations.

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

2. Referenced Documents

2.1 ASTM Standards:²

F2576 Terminology Relating to Declarable Substances in Materials

2.2 Other Documents:

DTI ROHS Regulations Government Guidance Notes, November 2005, SI 2005 No. 2748³

European Commission Decision 2005/618/EC Commission Decision of 18 August 2005 amending Directive 2002/95/EC of the European Parliament and of the Council for the purpose of establishing the maximum concentration values for certain hazardous substances in electrical and

electronic equipment⁴

European Union Directive 2011/65/EU (recast of 2002/95/EC) on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment⁵

European Union Directive 2012/19/EU on Waste Electrical and Electronic Equipment⁶

3. Terminology

3.1 Terms and definitions related to declarable substances in materials may be found in Terminology **F2576**.

3.2 Terms and definitions in the guide not found in Terminology **F2576** may be found in a common dictionary or other reference documents such as the ASTM Dictionary of Engineering Science & Technology.⁷

4. Significance and Use

4.1 Due to requirements being placed on concentrations of substances within (or on) materials, assessing conformance of products has become a complex, time-consuming and expensive task. This guide is intended to assist the user in developing a protocol for product assessment.

4.2 *A priori* knowledge is based on logical deduction and scientific principles, so actual testing of a material may not be required in order to assess conformance to requirements. For example, it is possible to deduce that organic substances will not survive the temperatures required to produce wrought steel, so there is no need to test for organic substances in wrought steel nor is it possible to develop test methods and reference materials for determination of organic substances within wrought steel.

4.3 *A posteriori* knowledge is based on observation, experience and known facts. If *a priori* knowledge cannot rule out the possibility that a substance is present within (or on) a

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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.

³ DTI RoHS Regulations, Government Guidance Notes, November 2005, SI 2005 No. 2748," p. 23. Reproduced by permission from the United Kingdom Department of Transportation and Industry (DTI).

⁴ Official Journal of the European Union, L 214/65, 19.8.2005; notified under document number C(2005) 3143.

⁵ Official Journal of the European Union, L174/88 08.06.2011.

⁶ Official Journal of the European Union, L 197/1 04.07.2012.

⁷ Sponsored by ASTM Committee E02 on Terminology; available from ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959; ASTM Stock Number: DEF00.