IPC-1752A
with Amendments 1 and 2
2014 - February

Materials Declaration Management

Supersedes IPC-1752A with Amendment 1
November 2012

A standard developed by IPC

Association Connecting Electronics Industries

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In May 1995 the IPC's Technical Activities Executive Committee (TAEC) adopted Principles of Standardization as a guiding principle of IPC's standardization efforts.

Standards Should:

- Show relationship to Design for Manufacturability (DFM) and Design for the Environment (DFE)
- Minimize time to market
- Contain simple (simplified) language
- Just include spec information
- Focus on end product performance
- Include a feedback system on use and problems for future improvement

Standards Should Not:

- Inhibit innovation
- Increase time-to-market
- Keep people out
- Increase cycle time
- Tell you how to make something
- Contain anything that cannot be defended with data

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IPC-1752A with Amendments 1 and 2

Materials Declaration Management

Developed by the Materials Declaration Task Group (2-18b) of the Supplier Declaration Subcommittee (2-18) of IPC

Supersedes:

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Users of this publication are encouraged to participate in the development of future revisions.

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Foreword

While IPC-1751 defines the generic requirements for declaration process management, IPC-1752 establishes a standard reporting format for material declaration data exchange between supply chain participants and supports reporting of bulk materials, components, printed circuit boards (PCBs), sub-assemblies, and products. This standard defines the content and requirements for four distinct classes of declarations that can be used between members of a supply chain relationship.

1752 - Class A: Declaration Query/Reply
1752 - Class B: Material Group Declaration
1752 - Class C: Material Composition Summary Declaration - Product Level
1752 - Class D: Material Composition Declaration - Homogeneous Material Level, with JIG-101 (latest revision) list

The initial focus of material reporting is the Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003, on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS). In April, 2005 the Electronic Industries Alliance, Japan Green Procurement Survey Standardization Initiative and the Joint Electronic Device Engineering Council (JEDEC) published the Joint Industry Guide Material Composition Declaration for Electronic Products (JIG-101), which established the materials and substances to be disclosed by suppliers when those materials and substances are present in products and subproducts that are incorporated into electrical and electronic equipment. The IPC-1752 standard supports the substance disclosure requirements outlined by the latest version of JIG-101 and accommodates disclosure of additional substance information.

There are several appendices to the 1752 which represent various lists taken from legal directives and other standard bodies. These lists are subject to change; therefore, corresponding appendices in this standard will be amended to reflect those changes at regular intervals. In addition, some substances/materials may exist on more than one list, and since a requester may require meeting more than one material reporting convention described in the appendices, users should be aware that duplicate reporting of a single substance in a material could result from adhering to the reporting conventions of more than one appendix. Tool designers for 1752 implementation are cautioned to consider screening to remove duplication prior to summing the mass or calculating mass percentages.

This standard will be updated to reflect changes affecting the global market. The methodology for update is described in the section on standard maintenance.

Version 1.1 of this standard was supported by two Portable Document Format (PDF) forms (1752-1 and 1752-2) and the Users Guide (1752-3). However, starting with version 2.0, this standard will not be supported directly with a PDF form. Third party software developers are invited to supply the implementation tool, and one organization has already made a free download implementation tool available. In version 2.0 the data exchange format is specified as Extensible Markup Language (XML).

Using a software tool of the user's choice, relevant data can be saved locally and submitted electronically back to the requester. The data structure is based on an underlying Unified Modeling Language (UML) model, which in turn is represented by an XML schema which is used to validate the XML data files. The schema and model are included in Figure 4-1 and Appendix E.

End product producers and customers throughout the supply chain are requesting that suppliers provide material declarations so that the recipient is aware of the presence and amount of certain chemicals in the products it procures. This standard defines the creation of a document or electronic record that will serve as a standard way for reporting and collecting this type of data.

Acknowledgment

Any document involving a complex technology draws material from a vast number of sources. While the principal members of the Materials Declaration Task Group (2-18b) of the Supplier Declaration Subcommittee (2-18) are shown below, it is not possible to include all of those who assisted in the evolution of this standard. To each of them, the members of the IPC extend their gratitude.

Supplier Declaration Subcommittee	**Materials Declaration Task Group**	**Technical Liaisons of the IPC Board of Directors**
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Krista Crotty Alberi EcoTech	Mark Frimann Texas Instruments	Dongkai Shangguan Flextronics International
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Materials Declaration Management

1 SCOPE

This standard establishes the requirements for exchanging material and substance data between suppliers and their customers for electrical and electronic product. This standard applies to products, components, subproducts and materials that are supplied to producers of electrical and electronic products for incorporation into their products. It covers materials and substances that may be present in the supplied product or subproduct. It does not apply to process chemicals, unless those process chemicals constitute part of the finished product or subproduct.

This standard applies to business-to-business transactions. It is not intended to be used by the general public when making purchasing decisions. The standard is not a compliance guide. As revisions to the European Union's Restriction of Hazardous Substances (RoHS) Directive and the European Union's REACH Regulation are released, this standard will be updated. Exemptions are for specific applications as defined, and management of usage and expirations are between the requester and the supplier.

1.1 Purpose This standard is intended to benefit suppliers and their customers by providing consistency and efficiency to the material declaration process. It establishes standard electronic data exchange formats that will facilitate and improve data transfer along the entire global supply chain.

1.2 Classes This standard establishes four classes for declaration of materials. Classes may be combined as desired.

Table 1-1 Material Declaration Classification

Class	Description	Declaration Type	Detailed Requirements
A	– Reporting in Query/Reply format	Query/Reply	– Supplier provides responses to standard queries and/or optional custom queries as shown in Figure 6-1.
B	– Material class reporting	Material Class	– Supplier states the amount of different classes of materials within a product.
C	– JIG-101 substance category reporting for the product – Additional substance categories reporting at the product level	Substance summary groups	– Supplier provides mass and/or concentration of JIG-101 substance category at the product level if above thresholds. – Additional substance categories can be added and reported at the product level.
D	– Substances reporting at the homogeneous material level – JIG-101 substances and additional substances are accommodated	Full substances	– Supplier provides location, mass, substances at homogeneous material level.