

IPC-1758

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Declaration Requirements for Shipping, Pack and Packing Materials

A standard developed by IPC

Association Connecting Electronics Industries



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- Contain simple (simplified) language
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- Focus on end product performance
- Include a feedback system on use and problems for future improvement

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Declaration Requirements for Shipping, Pack and Packing Materials

Developed by the Supplier Declaration Subcommittee
of the Declaration of Shipping, Pack and Packing Materials
Task Group of IPC

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Generic Requirements for Declaration of Shipping, Pack and Packing Materials

Foreword

This standard addresses the industry need for exchange of information regarding the materials used to protect products during shipment between supply chain partners. This standard is one of several in the 175x series of standards that permits segmentation of declaration details based on the subject and scope of the declaration. This standard describes essential information exchange content with respect to packing, supplemented by regulation references for materials, marking, recycling information and recycled content that may be desired to complete the data package.

1 SCOPE

This standard establishes the requirements for exchanging packing declarations between members of a supply chain. Section 3.1 Terms and Definitions defines “packing.” Although this standard contains only generic information regarding packing declaration, when combined with the latest version of the IPC-1751 sectional standard, the resulting document set defines the declaration information.

This standard pertains to both hard copy and electronic data descriptions. This standard provides for the creation of a record between trading partners, and therefore the data communicated may be used to help support and demonstrate due diligence in any subsequent representation based upon its contents. This standard is not intended for use by the public when making purchasing decisions.

1.1 Purpose

The purpose of this standard is to establish a data exchange standard for packing related information including a method for declaration of substance content and recycled content of packing materials between suppliers and their customers. The form, structure, and content of the declaration are intended to be conveyed electronically in a standard format, thereby providing consistency, efficiency, and integrity to the declaration process.

In order to facilitate the incorporation of this sectional standard into the XML schema, it is required that the appropriate element be identified. This is accomplished through the description of the “Include” element as defined in Figure 1.1.

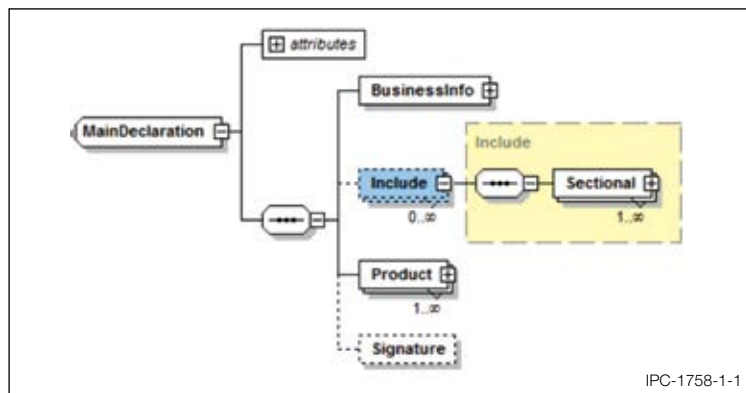


Figure 1-1 Representation of 1751 Schema to Include Packing Information

This sectional standard may be invoked several times depending on the nature of the Material Declaration Classification (see 1.2) and the appropriate “Use Case” describing Multiple Packing Configurations (see 5.) Each time this sectional is included in the “MainDeclaration” file, the name of the sectional **shall** be used.

The enumerated string “name” for the requirements of the IPC-1758 is identified as “PackingProductsDeclaration” as shown in Figure 1-2. The “names” of the subsections refer to the Declaration Classification and the Multiple Packing Configuration.

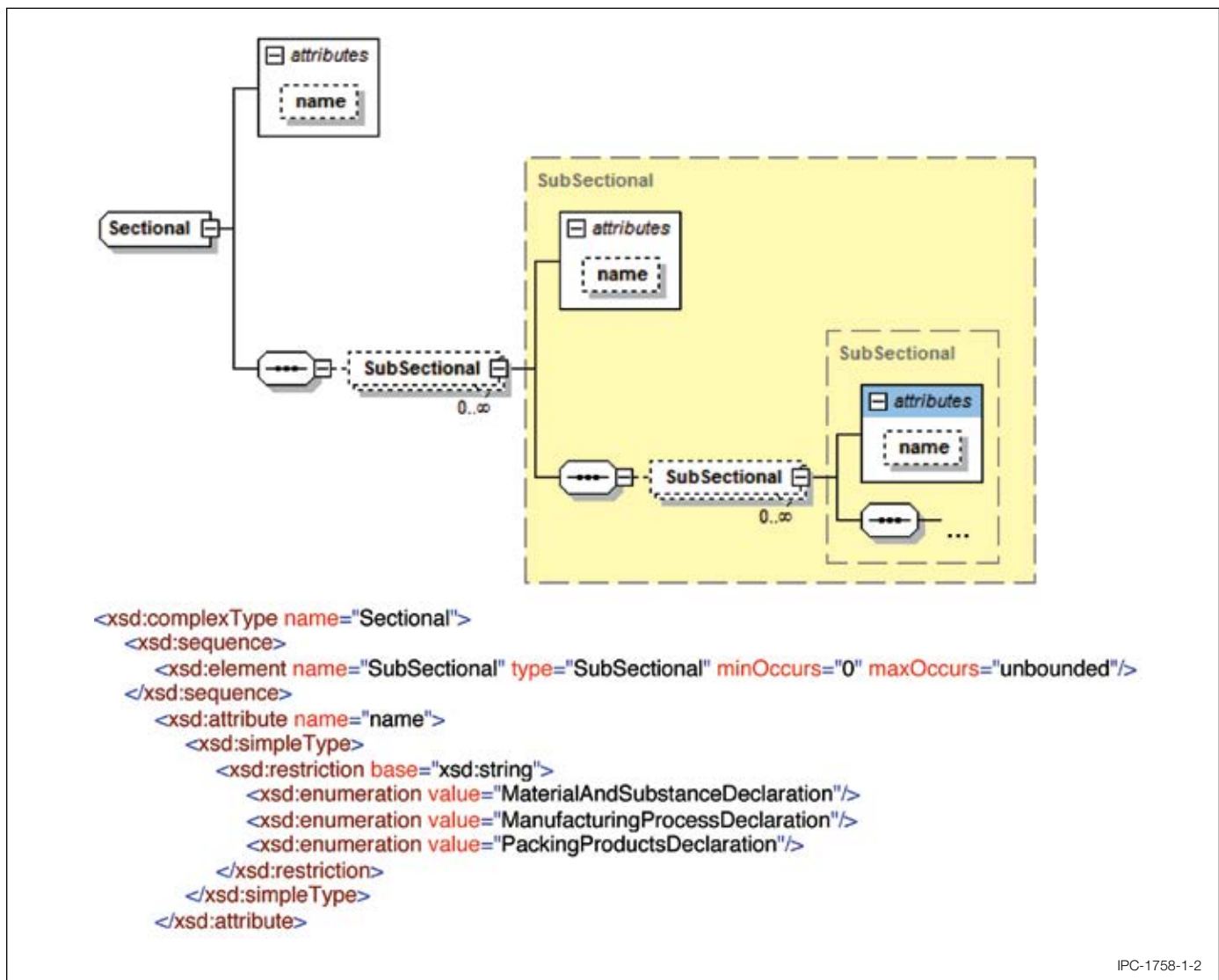


Figure 1-2 Name Configurations of Sectional and SubSectional

1.2 Classes

This sectional standard supports three of the four classifications (classes A, B, and C) established for declaration of materials identified in IPC-1752A. However, Class B is not recommended for use in this standard. Please see Section 6.6 for further information. The three classes for packing materials are identified in accordance with Table 1-1. The classification of the data is identified by the enumerated string for the “Name” of the first SubSectional element as shown in Figure 1-2. Figure 1-3 shows the four enumerations; however, only the first three (A, B, or C) are appropriate for packing materials.

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 group reporting	Material Group	Supplier states the amount of different groupings of materials within a product.
C	JIG-201 substance category reporting for the product	Substance summary groups	Supplier provides mass and/or concentration of JIG-201 substance category at the product level if above thresholds. Additional substance categories reporting at the product level
D	Substances reporting at the homogeneous material level JIG-201 substances and additional substances are accommodated	Full substances	NOT APPLICABLE Supplier provides location, mass, substances at homogeneous material level.

```

<xsd:complexType name="SubSectional">
  <xsd:sequence>
    <xsd:element name="SubSectional" type="SubSectional" minOccurs="0" maxOccurs="unbounded"/>
  </xsd:sequence>
  <xsd:attribute name="name">
    <xsd:simpleType>
      <xsd:restriction base="xsd:string">
        <xsd:enumeration value="A"/>
        <xsd:enumeration value="B"/>
        <xsd:enumeration value="C"/>
        <xsd:enumeration value="D"/>
      </xsd:restriction>
    </xsd:simpleType>
  </xsd:attribute>
</xsd:complexType>

```

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Figure 1-3 XML Schema for Classification Descriptions (Only A, B, C Apply)

2 APPLICABLE DOCUMENTS

The following documents form a part of this standard to the extent specified herein. The revision of the document in effect at the time a declaration is produced **shall** take precedence. Appendix A provides additional references that may be useful in understanding this standard.

2.1 IPC Standards¹

IPC-T-50 *Terms and Definitions for Interconnecting and Packaging Electronic Circuits*

IPC-1751A *Generic Requirements for Declaration Process Management*

2.2 WC3

W3C XML: <http://www.w3.org/XML/>

W3C XML Schema: <http://www.w3.org/XML/Schema>

3 REQUIREMENTS

The following requirements are applicable to IPC-1758 declaration of pack and packing materials. In addition, the requirements of IPC-1751A or latest version are a **mandatory** part of this standard.

1. www.ipc.org

3.1 Terms and Definitions

The definition of all terms shall be in accordance with IPC-T-50 and the following:

3.1.2 intermediate pack

A level of packing used to contain, protect and/or facilitate identification of one or more product(s) (e.g. a product pack that is contained within an outer pack).

3.1.3 pack or unit pack

Configuration of packing materials used at any specified level (e.g., intermediate pack, tertiary pack).

3.1.4 packing

Material that is used to protect electronic items from mechanical, environmental and electrical damage during transportation or storage and that is discarded prior to the incorporation of the item into its end application.

3.1.5 packing component

This is a European Union Packaging Directive term. It is not defined within the EU Packaging Directive, but is explained through several examples. Examples of packing components from the EU Packaging Directive are:

- Labels hung directly on or attached to a product
- Sticky labels attached to another packaging item
- Staples

Other examples of packing components in the electronics industry include, but are not limited to:

- bags (moisture, ESD, and others)
- packing reels (including inserts and carrier tape)
- labels
- desiccants
- humidity indicating cards

Packing components would include all other items considered as packing, packing material, primary packing and product packing.

3.1.6 packing material

Material added inside a pack to provide protection of the product (e.g., “peanuts” in a box that surrounds a product).

3.1.7 primary pack

First level packing of a product or material (e.g., a box holding transparencies, a sealed bag containing toner cartridge).

3.1.8 product pack

The pack applied to a single product (e.g., a box containing a bagged toner cartridge).

3.1.9 recycled content

Portion of packing material that comes from a recycling process, which utilizes waste materials as an input. (Sometimes known as post-consumer recycled content).

3.1.10 secondary pack

Packing that contains the primary pack (e.g., a carton containing boxes of transparencies).

3.1.11 tertiary pack

Packing that contains or holds primary and secondary packs (e.g., shrink wrap, pallet).

3.1.12 transport pack

Packing intended for the transportation of one or more articles, smaller packs (product packs) or bulk material (e.g., a shipping container for a unit load).

4 DATA MODEL

A data model is a simplified representation of a system that ignores extraneous details in order to concentrate on some particular aspect of the system. Models are useful tools for understanding and explaining the operation of any system. An information model is an abstract view of a system that specifies and describes the information used by the system. The most useful information models describe constraints on information and relationships among information, in addition to the structure of the information. Machine readability is a required feature of an information model. Figure 4-1 shows the data model used in this standard. The design model is a representation of the detailed characteristics. The IPC-1758 section standard XML schema is included as a part of IPC-1751A (or latest version) XML schema. All packing data is identified through the “Product” with the detail descriptions defined in the “MaterialsInfo.”

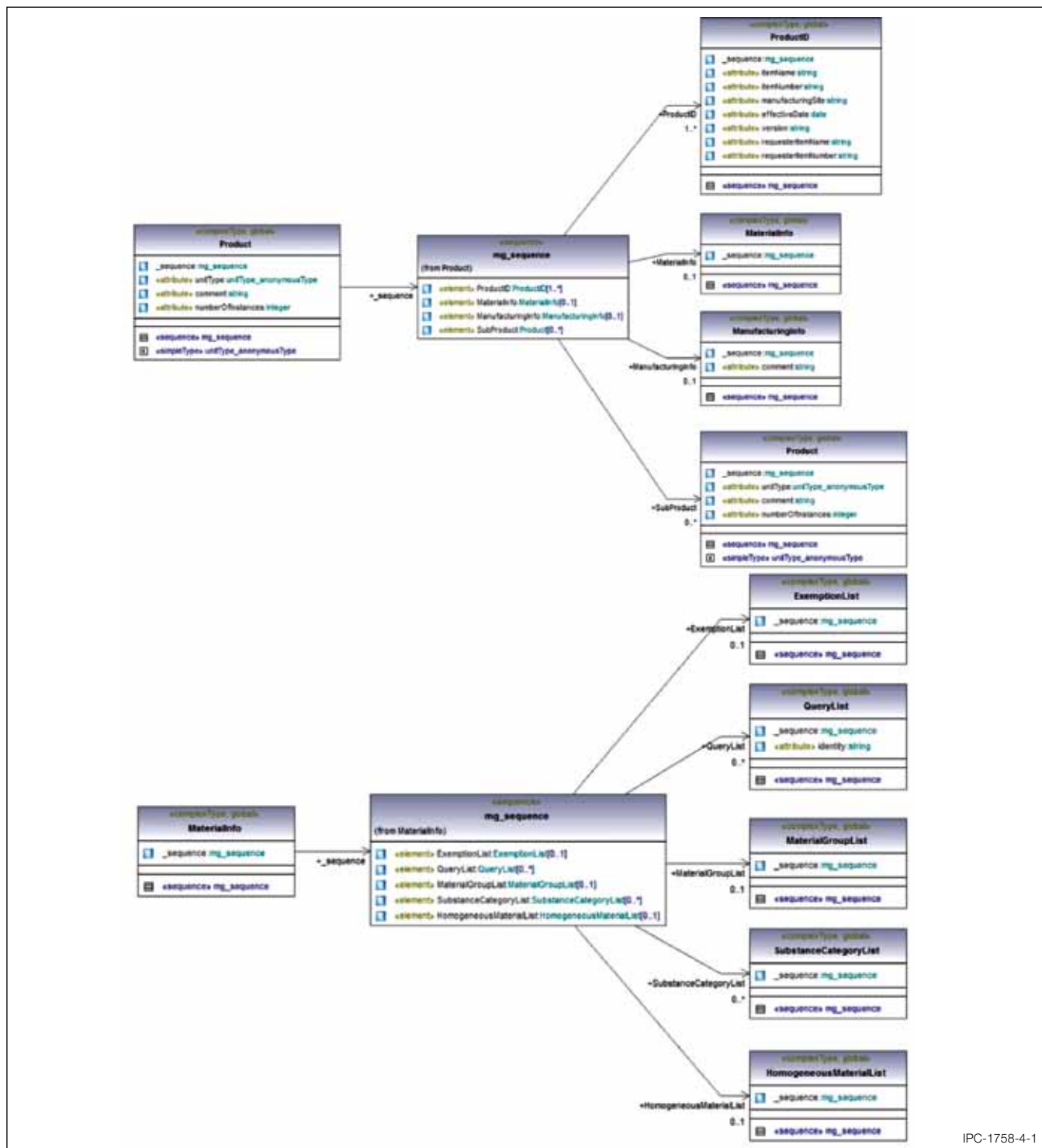


Figure 4-1 Design Data Model for IPC-1758 Pack and Packing Material Declaration Requirements