

FINAL VERSION

VERSION FINALE

Material declaration for products of and for the electrotechnical industry

Déclaration de matières pour des produits de et pour l'industrie électrotechnique

CONTENTS

FOREWORD	4
INTRODUCTION	6
1 Scope	8
2 Normative references	8
3 Terms and definitions	8
4 Requirements for material declarations	12
4.1 General	12
4.1.1 Overview	12
4.1.2 Conformity to the IEC 62474 standard	15
4.1.3 General requirements	16
4.2 Business information	16
4.3 Product information	16
4.4 Declaration for compliance requirements	16
4.4.1 General information	16
4.4.2 DSs and DSGs with mandatory reporting requirements	17
4.4.3 DSs and DSGs with optional reporting requirements	18
4.5 Composition declaration requirements	18
4.5.1 General requirements	18
4.5.2 Product parts	19
4.5.3 Materials	19
4.5.4 DSs and DSG substance(s) with mandatory reporting requirements	20
4.5.5 DSs and DSG substance(s) with optional reporting requirements	21
4.5.6 Other substance(s)	21
4.6 Material class declaration	21
4.7 Other information	22
4.7.1 Query lists	22
4.7.2 Attachments	22
4.7.3 Requester/responder mode	22
4.7.4 Distribution mode	22
5 Criteria and thresholds for DSs, DSGs and material classes in the IEC 62474 database	22
5.1 General	22
5.2 DSs and DSGs criteria	23
5.3 Material class criteria	24
5.4 Reporting threshold levels and reportable applications for DSs and DSGs	24
5.5 Threshold levels for material classes	24
5.6 Reference substances in the IEC 62474 database	24
6 Criteria for exemption lists in the IEC 62474 database	25
7 IEC 62474 database data format and exchange	25
7.1 General	25
7.2 Data exchange format	25
7.3 Data exchange	26
7.3.1 Two-way and one-way data exchange	26
7.3.2 Data exchange specification in the IEC 62474 database	26
7.3.3 Additional data exchange requirements	26
7.3.4 XML file	26

7.4	Criteria for the IEC 62474 database maintenance of data exchange format.....	26
8	IEC 62474 database maintenance	27
8.1	General.....	27
8.2	IEC 62474 database update process.....	27
8.3	Reclassification and removal of DSs and DSGs from the IEC 62474 DSL.....	27
8.4	Maintenance of exemption lists in the IEC 62474 database	28
8.5	Maintenance of data exchange format.....	28
	Annex A (informative) Simplified representation of data exchange format	29
	Bibliography.....	35
	Figure 1 – IEC 62474 principles	7
	Figure 2 – Material declaration capabilities	13
	Figure 3 – Material declaration structure	14
	Figure 4 – Data model for a declaration for compliance.....	14
	Figure 5 – Data model for a composition declaration.....	15
	Table 1 – DSs and DSGs criteria	23
	Table A.1 – Data element types of a material declaration.....	30

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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AND FOR THE ELECTROTECHNICAL INDUSTRY****FOREWORD**

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This consolidated version of the official IEC Standard and its amendment has been prepared for user convenience.

IEC 62474 edition 2.1 contains the second edition (2018-11) [documents 111/498/FDIS and 111/503/RVD] and its amendment 1 (2020-12) [documents 111/511/CDV and 111/561/RVC].

This Final version does not show where the technical content is modified by amendment 1. A separate Redline version with all changes highlighted is available in this publication.

International Standard IEC 62474 has been prepared by IEC Technical Committee 111: Environmental standardization for electrical and electronic products and systems.

This second edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) The material classes and exemption lists capabilities have been improved.
- b) The introduction and scope have new diagrams and information to give a better overview of the standard and identify what information is mandatory, optional or conditionally mandatory.
- c) Definitions have been added. Minimum requirements to be in conformance with the IEC 62474 standard are defined, including XML format as the officially accepted format. By defining an authority, list identity and list version, the standard format could be used for lists other than the IEC 62474 database.
- d) Terms have been aligned for consistency throughout the document. For example, the “IEC 62474 database” was previously referred to as “IEC 62474 database”, “IEC 62474”, “IEC 62474 Database”, “IEC 62474 DB”.
- e) The annexes have been removed as they are now contained within documents managed by the validation team 62474 (VT 62474). Annex A (Annex B in the previous edition) is provided for non-XML users as a reference only.
- f) Two types of material declarations, declaration for compliance and composition declaration, and their requirements are defined.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 62474 series, published under the general title *Material declaration for products of and for the electrotechnical industry*, can be found on the IEC website.

The committee has decided that the contents of the base publication and its amendment will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

INTRODUCTION

This document benefits the electrotechnical industry by establishing requirements for reporting of material declaration data, standardizing protocols, and facilitating the transfer and processing of data. Material declarations are used by the electrotechnical industry to track and declare specific product information used for compliance and/or environmentally conscious design (ECD) considerations. To simplify requirements across the supply chain and to improve economic efficiencies, it is important to standardize the exchange of product, product part, material and substance data, and provide requirements within material declarations.

IEC 62474 is made of two parts: this document, which contains requirements for material declarations and a database containing information such as a declarable substance list (DSL), exemption list and data exchange format (see Clause 8).

This document defines the two most common types of material declarations and their requirements:

- 1) Declaration for compliance – is always at a product level in reference to the list of declarable substances and declarable substance groups within the declarable substance list (DSL).
- 2) Composition declaration – is the much more detailed reporting down to individual substances contained within the DSL.

The standard contains the IEC 62474 data exchange format and IEC 62474 lists, including the declarable substance list (DSL), material class list (MCL) and exemption list. IEC 62474 allows other lists to be used with the IEC 62474 data exchange format.

The IEC 62474 database is maintained by the validation team (VT 62474) which updates information in the IEC 62474 database based on requirements specified in the IEC 62474 standard (see Clause 8).

By fulfilling the requirements of the IEC 62474 standard and based on the information from the IEC 62474 database, two types of declaration can be created as shown in Figure 1 below.

- a declaration for compliance which is the information required to determine product compliance with substance regulations and market needs (see 4.4);
- a composition declaration that is the information required to assess where declarable substances above threshold are contained in the product (see 4.5).

The transmission of information in the supply chain can be done in two modes:

- Distribution mode: The supplier provides material declaration data about their product(s) to a recipient.
- Requester/responder mode: The requester determines the type of material declaration(s) the responder will provide.

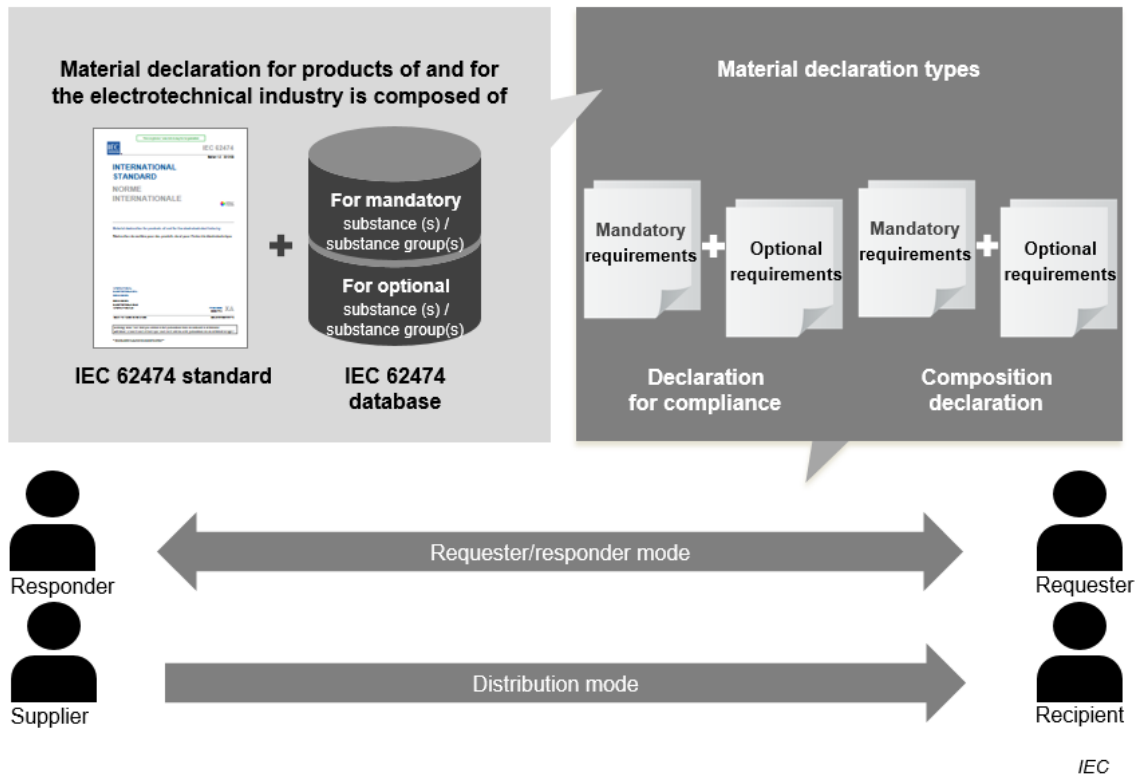


Figure 1 – IEC 62474 principles

The IEC 62474 principles are determined in the following clauses:

- Clause 4 specifies requirements for material declarations.
- Clause 5 specifies the criteria and thresholds for declarable substances (DSs), declarable substance groups (DSGs) and material classes in the IEC 62474 database.
- Clause 6 specifies the criteria for exemption lists in the IEC 62474 database.
- Clause 7 specifies the IEC 62474 database data format and exchange requirements with further information in Annex A (informative).
- Clause 8 specifies the IEC 62474 database maintenance process.

MATERIAL DECLARATION FOR PRODUCTS OF AND FOR THE ELECTROTECHNICAL INDUSTRY

1 Scope

This document specifies the procedure, content, and form relating to material declarations for products and accessories of organizations operating in and supplying to the electrotechnical industry. Process chemicals, emissions during product use and product packaging material are not in the scope of this document.

The main intended use of this document is to provide data up and down the supply chain that:

- allows organizations to assess products against substance compliance requirements,
- allows organizations to use this information in their environmentally conscious design process and across all product life cycle phases.

This document specifies mandatory declaration requirements and also provides optional declaration requirements.

This document does not suggest any specific method or process to capture material declaration data in the supply chain. However, it provides a data format used to transfer information within the supply chain. Organizations can determine the most appropriate method to capture material declaration data without compromising data utility and quality. This document is intended to allow reporting based on engineering judgement, supplier material declarations, and/or sampling and testing.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61360-1, *Standard data element types with associated classification scheme – Part 1: Definitions – Principles and methods*

IEC 61360-2, *Standard data element types with associated classification scheme for electric components – Part 2: EXPRESS dictionary schema*

ISO/IEC Directives, IEC Supplement, *Procedures specific to IEC*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>