This is a free page sample. Access the full version online.

NSAI Standards

Irish Standard
I.S. EN 62474:2012

Material declaration for products of and for the electrotechnical industry (IEC 62474:2012 (EQV))

© NSAI 2012 No copying without NSAI permission except as permitted by copyright law.

This is a free page sample. Access the full version online.

I.S. EN 62474:2012

Incorporating amendments/corrigenda issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces:	*This document is based on:* EN 62474:2012	*Published:* 8 June, 2012

This document was published under the authority of the NSAI and comes into effect on: 15 June, 2012	ICS number: 01.110 13.020 29.100 31.020

NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie

W **NSAI.ie**

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

This is a free page sample. Access the full version online.

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62474

June 2012

ICS 01.110; 13.020; 29.100; 31.020

English version

Material declaration for products of and for the electrotechnical industry
(IEC 62474:2012)

Déclaration de matière pour des produits de et pour l'industrie électrotechnique (CEI 62474:2012)

Materialdeklaration für Produkte der elektrotechnischen Industrie und für die elektrotechnische Industrie (IEC 62474:2012)

This European Standard was approved by CENELEC on 2012-04-26. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Management Centre: Avenue Marnix 17, B - 1000 Brussels

© 2012 CENELEC - All rights of exploitation in any form and by any means reserved worldwide for CENELEC members.

Ref. No. EN 62474:2012 E

This is a free page sample. Access the full version online.

Foreword

The text of document 111/243/FDIS, future edition 1 of IEC 62474, prepared by IEC/TC 111 "Environmental standardization for electrical and electronic products and systems" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62474:2012.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2013-01-26
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2015-04-26

This standard refers to a database that is associated with it and that will be maintained by IEC/TC 111. Hence all elements relating to this database are to be disregarded in the context of EN 62474. This applies in particular to Clause 7.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 62474:2012 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 62430	NOTE	Harmonized as EN 62430.
IEC 82045-1:2001	NOTE	Harmonized as EN 82045-1:2001 (not modified).
IEC 82045-2:2004	NOTE	Harmonized as EN 82045-2:2005 (not modified).
ISO 1043-1:2001	NOTE	Harmonized as EN ISO 1043-1:2001 (not modified).
ISO 1043-2:2000	NOTE	Harmonized as EN ISO 1043-2:2001 (not modified).
ISO 1043-3:1996	NOTE	Harmonized as EN ISO 1043-3:1999 (not modified).
ISO 1043-4:1998	NOTE	Harmonized as EN ISO 1043-4:1999 (not modified).
ISO 9000:2005	NOTE	Harmonized as EN ISO 9000:2005 (not modified).
ISO 14020:2000	NOTE	Harmonized as EN ISO 14020:2001 (not modified).
ISO 14024:1999	NOTE	Harmonized as EN ISO 14024:2000 (not modified).
ISO 14025:2006	NOTE	Harmonized as EN ISO 14025:2010 (not modified).
ISO 14040:2006	NOTE	Harmonized as EN ISO 14040:2006 (not modified).

This is a free page sample. Access the full version online.

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	Title	EN/HD	Year
IEC 61360-1	-	Standard data elements types with associated classification scheme for electric items - Part 1: Definitions - Principles and methods	EN 61360-1	-
IEC 61360-2	-	Standard data element types with associated classification scheme for electric components - Part 2: EXPRESS dictionary schema	EN 61360-2	-
IEC 61360-5	-	Standard data element types with associated classification scheme for electric components - Part 5: Extensions to the EXPRESS dictionary schema	EN 61360-5	-
ISO/IEC directives Supplement	2011	Procedures specific to IEC	-	-

This is a free page sample. Access the full version online.

This page is intentionally left BLANK.

This is a free page sample. Access the full version online.

CONTENTS

FOREWORD 4
INTRODUCTION 6
1 Scope 7
2 Normative references 7
3 Terms and definitions 8
4 Requirements for material declaration 9
4.1 General 9
4.2 Base data requirements 11
4.2.1 Products 11
4.2.2 Product parts 11
4.2.3 Substances or substance groups listed in the IEC 62474 database with a mandatory reporting requirement 11
4.2.4 Other requirements 12
4.3 Additional requirements 12
4.3.1 Product parts 12
4.3.2 Material classes (optional) 12
4.3.3 Materials (optional) 12
4.3.4 Substances or substance groups listed in the IEC 62474 database with a mandatory reporting requirement 13
4.3.5 Substances or substance groups listed in the IEC 62474 database with an optional reporting requirement, as reference substances or substances or substance groups not listed in the IEC 62474 database 13
4.3.6 Other requirements 14
5 Criteria and thresholds for substances and material classes in the IEC 62474 database 14
5.1 General 14
5.2 Declarable substances criteria 15
5.3 Material class criteria 16
5.4 Reporting threshold levels and reportable applications for declarable substance groups and declarable substances 16
5.5 Threshold levels for material classes 17
5.6 Reference substances in the IEC 62474 database 17
6 Data format and exchange 17
6.1 General 17
6.2 Data format 17
6.3 Data exchange 18
6.3.1 Two-way and one-way data exchange 18
6.3.2 Data exchange specification in the IEC 62474 database 18
6.3.3 Additional data exchange requirements 18
6.3.4 XML file 18
6.4 Criteria for the IEC 62474 database maintenance of data format and exchange information 18
7 IEC 62474 database maintenance 18
7.1 IEC 62474 database update process 18
7.2 Reclassification and removal of substance groups and substances from the IEC 62474 database 19
7.3 Maintenance of data format part of the IEC 62474 database 19

This is a free page sample. Access the full version online.

Annex A (informative) Examples corresponding to Clause 4 – Requirements for material declaration 20

Annex B (informative) Examples corresponding to Clause 6 – Data format and exchange 31

Annex C (informative) Examples corresponding to Clause 7 – IEC 62474 database management 38

Annex D (informative) Additional information 47

Annex E (informative) Declaration examples as XML files 49

Bibliography 52

Figure 1 – Conceptual diagram for base requirements 10

Figure 2 – Conceptual diagram for additional requirements 10

Figure A.1 – Schematic representation of products versus product parts along the supply chain 29

Figure C.1 – Guidance to validation team on C-1 substance/ substance group change request review 45

Table 1 – Declarable substances criteria 15

Table A.1 – Base data requirements – Business information 21

Table A.2 – Example 1 – base data requirements – Substance/substance *group* information 21

Table A.3 – Additional requirements – Business information 21

Table A.4 – Additional requirements – Product part/material/substance group/substance information 22

Table A.5 – Additional requirements – Material class information 23

Table A.6 – Base data requirements – Business information 24

Table A.7 – Example 2 – Base data requirements – Substance/substance group information 24

Table A.8 – Additional requirements – Business information 24

Table A.9 – Additional requirements – Product part/material/substance group/substance information 25

Table A.10 – Additional Requirements – Material class information 26

Table A.11 – Additional requirements – Business information 26

Table A.12 – Additional requirements – Product part/material/substance group/substance information 27

Table A.13 – Additional requirements – material class information 28

Table B.1 – Data element types of a material declaration 32

Table D.1 – Comparison of IEC 62474 material classes to automotive industry material classes 47

This is a free page sample. Access the full version online.

INTERNATIONAL ELECTROTECHNICAL COMMISSION

MATERIAL DECLARATION FOR PRODUCTS OF AND FOR THE ELECTROTECHNICAL INDUSTRY

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
6) All users should ensure that they have the latest edition of this publication.
7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

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

A database associated with this document is available at: http://std.iec.ch/iec62474. It contains the list of

- Declarable substance groups and declarable substances
- Reference Substances
- Material classes
- XML schema for data format and exchange and the accompanying developer table

This is a free page sample. Access the full version online.

The text of this standard is based on the following documents:

FDIS	Report on voting
111/243/FDIS	111/245/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

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

The committee has decided that the contents of this publication 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.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

This is a free page sample. Access the full version online.

INTRODUCTION

The electrotechnical industry tracks and declares specific information about the material composition of its products for compliance and environmentally conscious design requirements. The electrotechnical industry needs to gather information about the composition of products and product parts that are purchased from suppliers for incorporation into their products. Currently material declarations are driven by individual product manufacturer's specifications and there is no internationally accepted standardization. This results in economic inefficiencies. To simplify requirements across the supply chain and to improve economic efficiencies, it is necessary to standardize the exchange of material composition data and provide requirements for material declarations.

This International Standard benefits the electrotechnical industry by establishing requirements for reporting of substances and materials, standardizing protocols, and facilitating transfer and processing of data.

This is a free page sample. Access the full version online.

MATERIAL DECLARATION FOR PRODUCTS OF AND FOR THE ELECTROTECHNICAL INDUSTRY

1 Scope

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

The main intended use of this International Standard is to provide data to downstream manufacturers that:

- allows them to assess products against substance restriction compliance requirements
- they can use in their environmentally conscious design process and across all product life cycle phases

Clause 4 specifies requirements for a material declaration.

Clause 5 specifies the criteria for declarable substances and material classes in the IEC 62474 database associated with this standard.

Clause 6 specifies the data format and exchange requirements to be included in the IEC 62474 database.

Clause 7 specifies the process to regularly update and maintain the IEC 62474 database.

Although this International Standard specifies base requirements, it offers flexibility to product manufacturers and suppliers in the selection of additional requirements or information.

This International Standard does not provide any specific method to capture material composition data. Organizations have the flexibility to determine the most appropriate method to capture material composition data without compromising data utility and quality. This International Standard is intended to allow reporting based on engineering judgment, supplier material declarations, or on sampling and testing.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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 for electric items – 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*

IEC 61360-5, *Standard data element types with associated classification scheme for electric components – Part 5: Extensions to the EXPRESS dictionary schema*

ISO/IEC Directives Supplement: 2011, *Procedures Specific to IEC*

SAI GLOBAL

This is a free preview. Purchase the entire publication at the link below:

Product Page

Looking for additional Standards? Visit Intertek Inform Infostore

Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation