

Material Deklarationen



Good Declaration Practice

Good Declaration Practice, Contents

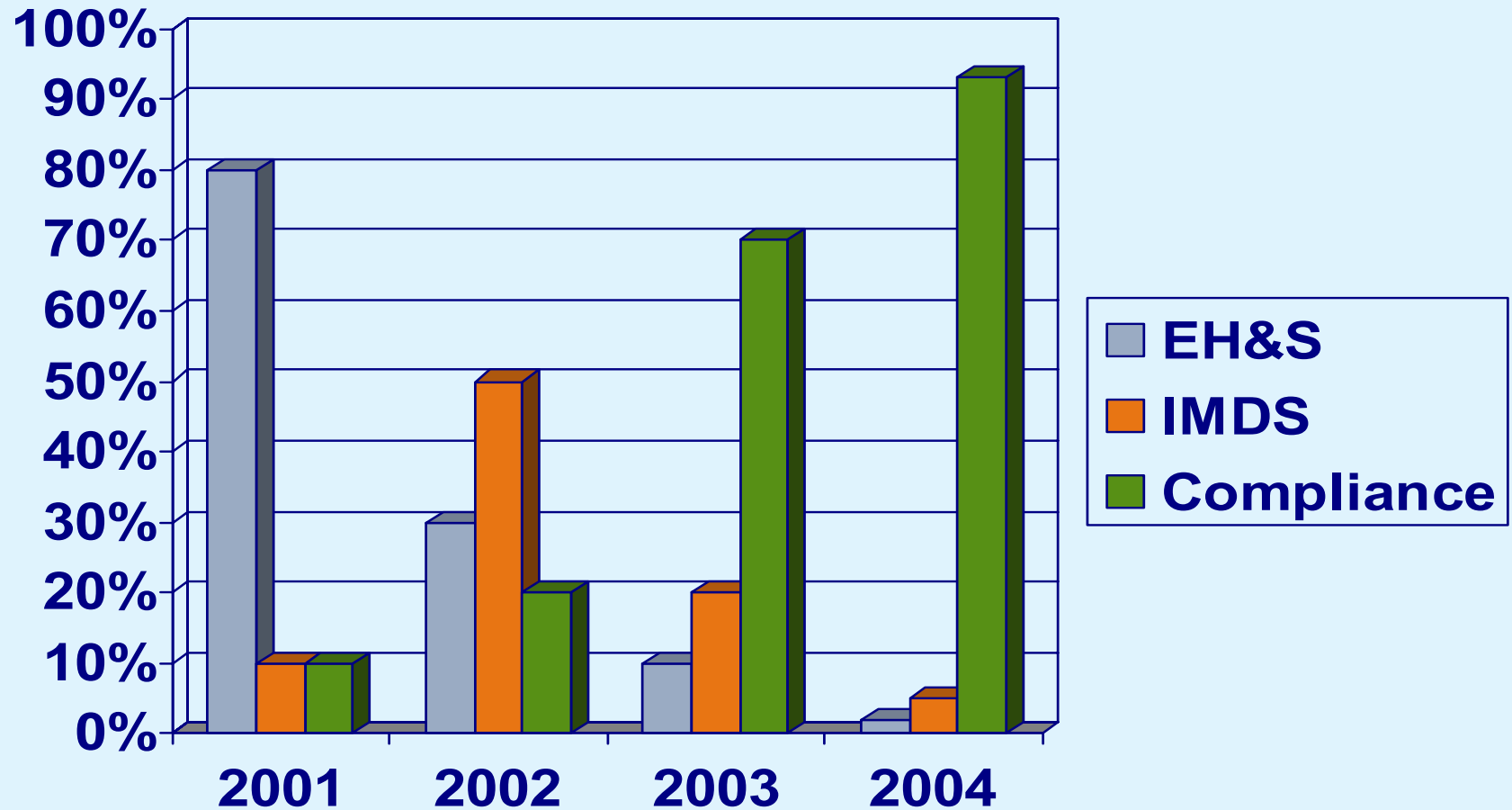
Materials Declaration Principles

Materials Declaration Today

Good Declaration Practice, Way to Go

- **Good Declaration Practice: Guidelines**
- **Materials Declaration: Standardization and Related Activities**
- **Materials Declaration: Combined Efforts and Benefits**
- **Materials Declaration: Examples for the Good Declaration Practice**

Good Declaration Practice: E-Mails regarding:



Materials Declaration Principles

Driving Forces Examples:

Legal Compliance to European Directives :

Directive 76/769/EEC

Directive 2000/53/EC (ELV)

Directive 2002/95/EC (RoHS)

Directive 2002/96/EC (WEEE)

Information for

End Users, Recyclers ...

Lifecycle Assessments ...

Internal documentation for R&D etc.

Materials Declaration Principles

Three Basic Forms of Declaration:

Simple Compliance Declaration



Based on RoHS, ELV, ...

Extended Compliance Declaration



Based on individual lists of regulated substances and substances of individual concerns,

Full Materials Declaration



100% declaration of all materials and substances used with a product.
Excel Sheets, Databases, individual forms

Materials Declaration Principles

Three Basic Forms of Declaration:

Simple Compliance Declaration



Short time for preparation, cost saving, regarding RoHS it is not expedient to the time being, as regulations will come into force at July 1st, 2006)

Extended Compliance Declaration



cost intensive, between 100 and up to 16.000 substances to be checked by supplier for individual products

Full Materials Declaration



highly cost intensive to prepare if there is a request for individual databases (e.g. AIAG Spread-sheet plus modified versions, IMDS etc.)
Problem: individual approach for declaration, different definitions for materials and substances etc.

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Materials Declaration Today: Babylonian Deversity !

What is the benefit ?

IPC Approach

Spreadsheets

AIAG

Different Synonyms

IMDS

Rosetta Net

Different Approaches

Word Files

EICTA Approach

Green Partner

Different Definitions

Different Identifiers

Individual Databases

ECO Partner

Green Procurement

IEC 61906

„Size Effect“

The smaller a company is, the extended is the declaration form

If a company consists of independendly acting units, then there are as many individual declarations forms

If this company develops a comprehensive model for declaration, it tend to go beyond any scope

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Good Declaration Practice, Way to Go

How do we come to a Good Declaration Practice ?

Voluntary programmes together with self-responsibility of each company and cooperation between the respective industries generate more efficient and effective solutions to protect human health and environment rather than strategies based on laws and regulations only.

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Good Declaration Practice: Basics

The Electrical and Electronic industry consider safety and the protection of human health and the environment as matter of fundamental importance.

The Electrical and Electronic industry take up the general publics, customers and suppliers questions and concerns regarding its products and business operations seriously and provides appropriate response under ecological and economic considerations.

The Electrical and Electronic industry is permanently working on product optimisation and further development for an improved technical, ecological and economical performance.

Good Declaration Praxis, Guidelines

**Development of an unified international standard and
Global harmonization of requirements**

Declaration must serve a target

**Dialogue and cooperation with partner in supply chain at an early stage
of decision making**

**Joint political activities to achieve clear and transparent targets on legal
requirements**

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Materials Declaration: Standardization and Related Activities

IEC 61906 "Procedure for declaration of materials in products of the Electrotechnical and Electronics industry"

A draft for an international standard has been submitted to IEC. Without addressing detailed named substances it defines a procedure for material reporting/declaration purposes which satisfies any legitimate requirement of customers in the supply chain of the Electrotechnical and Electronics industry.

Key aspects:

- In compliance with IEC - Guide 113
- Clarification of basic concept and terms
- No substance lists for reporting are given
- Simplification by declaration of product families
- Procedure includes the possibility of Flat Bills of materials
- Procedure is based on "Good Declaration Practice" (GDP)

Materials Declaration in Europe and Worldwide

EIA-EICTA-JGPSSI "Joint Industry Material Composition Declaration Guide"

This Guide has been developed by EIA (Electronic Industries Alliance), EICTA (European Industry Association - Information Systems Communication Technologies Consumer Electronics) and JGPSSI (Japan Green Procurement Survey Standardization Initiative) and is pending for voting. It is not intended to be put forward as a draft for standardization. Parallel efforts utilizing the data format of this Guide are undertaken by using RosettaNet interface.

Key aspects:

- Guide establishes substances to be disclosed by suppliers in two lists: list A refers to substances which are legally restricted, list B to substances that are of significant environmental, health, or safety interest
- Provides basic guidance for reporting
- Contains overviews of regulatory requirements that establish threshold levels and substances with CAS No's
- Suggests a basic set of data fields for information exchange

ZVEI White Paper on Good Declaration Practice

The White Paper elucidates the current legislation in Europe, gives a status report on recent developments in the field of materials declarations, evaluates existing requirements put by specific segments and customers and provides recommendations and suggestions how to meet challenges of materials declaration.

This white paper is supported by the Automotive Industry, Chemical and Plastics Industry and the Electro- and Electronic Industry.

It will be released by end of September, early October

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Materials Declaration: Combined Efforts and Benefits

The journey is the reward,

A balance must be found between complexity (cost) and benefit (profit)

A full materials declaration should be only an isolated case

Existing systems should be used or integrated

The complexity of a declaration system should be minimized in any case

Confidence in product compliance to legal limits due to an existing ISO 14001 management system should be taken into account.

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Materials Declaration: Examples for the Good Declaration Practice

CERAMIC CAPACITORS

Package family	Ceramic Capacitor MLCC	Part Numbers: BCcomponents: SMD NP0, X7R, Y5V EPCOS: B37XXX.... Murata : GRM... Panasonic: ECJ***** Taiyo Yuden: *MK063, *MK105, *MK107, *MK212 *MK316, *MK325, *MK432, *MK550
Date	1.08.2003	
Version	02	

Composition part	Material group	Materials	CAS if applicable	min	typical mass [wt-%]	max	Sum [%]	Trace
Active Part	Metals	Ag-Pd or Ni electrode		1	4	8	76	
	Ceramics	- BaTiO3 - Lead Compounds		60 0	72,0 0	95 10		
Termination	Metals	- Cu(75-84)/Ni(8-19)/Sn(8-15) - Ag(75-84)/Ni(8-19)/Sn(8-15) - Ni(85)/Sn(15) electrode		2	24	28	24	
	Metals	(Pb solder)		0	0	3		
Sum in total:							100	

Case sizes and weight range:			
	0201	0,6 x 0,3 x 0,3mm	0,00017..0,00029
	0402	1,0 x 0,5 x 0,5mm	0,0014
	0603	1,6 x 0,8 x 0,8mm	0,006
	0805	2,0 x 1,25 x 1,3mm	0,012..0,019
	1206	3,2 x 1,6 x 1,6mm	0,027..0,060
	1210	3,2 x 3,2 x 1,6mm	0,05..0,12
	1812	4,5 x 3,2 x 2,5mm	0,09..0,22
	2220	5,7 x 5,0 x 2,5mm	0,21..0,45

Simplification by
declaration of product
families

www.zvei-be.org

A U-Spec is a product material declaration sheet provided in an easy to read format, so that more than one product is reported with one set of data. The U-Spec is well suited to declaring materials data for all semiconductor products and is already an industry accepted standard.

Flat Bill of Materials (IMDS) Recommendation #19

Stoffgruppe	<u>Variante 1</u>	<u>Variante 2</u>
	Gemittelte Stoffinformation	Aufgliederung in 7 Baugruppenfamilien
	Anteil in %	Anteil in %
Epoxy	28,96	30,36
Glasfaser	27,59	27,59
Kupfer	9,64	9,70
Aluminium	7,53	7,60
noch nicht spezifiziert	7,83	6,41
TBBA	3,51	3,49
Siliciumdioxid, glasartig	3,31	3,26
Zinn	2,22	2,22
Ethan-1,2-diol	1,84	1,86
Butyrolacton	1,84	1,86
organischer Stoff	1,71	1,71
Blei	1,32	1,32
Eisen	0,50	0,50
Bariumtitantrioxid	0,44	0,40
Tantal	0,31	0,31
Bariumoxid	0,29	0,28
Silber	0,21	0,22
...

A „Flat Bill of Materials“
Is today part of IMDS

and it is a splendid example for the balance between complexity (cost) and benefit (profit) of a declaration, it avoids a detailing of declaration beyond any limit but provides all informations necessary for the proof of legal compliance or informations based on Article 8 ELV

And it is an example of an intensive cooperation along the supply chain

Materials Declaration: Examples for the Good Declaration Practice

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...

A third example of Good Declaration Practice will be presented right after,

Definition of Standard Components to Streamline Materials Declarations

Experiences from Siemens Medical Solutions and Agfa Gevaert

Materials Declaration

This could not be our way to go !!

40 Level 1 Prohibited Substances

Level	No.	Division's Part No.	Manufacturer Part No.	Part/ Material Name	Part/ Material code	Substance Name	CAS No. or M-No.	Section that lists the Chemical Substance				Chemical Substance Content (ppm)	Data/Property 0: Mfg Spec 1: Analysis	Section of Level 1 Prohibited Substances 0: No, 1: Yes	Non-use of Level 1 Prohibited Substances 0: Certain 1: Do not contain
		Single-byte	Single-byte				Single-byte	Single-byte	Single-byte	Single-byte	Single-byte	Single-byte	Single-byte	Single-byte	Single-byte
1	1	PAN0001	ABC0001	Power supply cord	4	17	Cadmium stearate	2223-93-0	Coating resin	0905	Stabilizer	15	0.15	0	1
1	1	PAN0001	ABC0001	Power supply cord	4	19	Cadmium sulfide	1306-25-8		9004	Ink	0.0001	0.001	1	0
1	1	PAN0001	ABC0001	Power supply cord	4	5	Decabromo diphenyl ether	1163-19-5	Copper resin	0990		5	5	0	1
1	1	PAN0001	ABC0001	Power supply cord	4	17	Cadmium stearate	2223-93-0	Cable tie	0905	Stabilizer	1	5	1	1
1	2	PAM0001	ABC0002	Rubber	1	3	Tributyl tin	669-34-8				10	0.001	1	0
1	3	PAL0001	ABC0003	Fixed resistor	24		Not applicable						0	0	0

50 Level 2 Prohibited Substances

Level	No.	Division's Part No.	Manufacturer Part No.	Part/ Material Name	Part/ Material code	Substance Name	CAS No. or M-No.	Section that lists the Chemical Substance				Chemical Substance Content (ppm)	Data/Property 0: Mfg Spec 1: Analysis	Section of Level 2 Prohibited Substances 0: No, 1: Yes	Non-use of Level 2 Prohibited Substances 0: No, 1: Yes
		Single-byte	Single-byte				Single-byte	Single-byte	Single-byte	Single-byte	Single-byte	Single-byte	Single-byte	Single-byte	Single-byte
2	1	PAN0001	ABC0001	Power supply cord	4	18	Lead	7440-32-1	Plug metal	0201	Solder	10		0	1
2	3	PAM0001	ABC0002	Rubber	1		Not applicable					0		0	0
2	4	PAL0001	ABC0003	Fixed resistor	24	18	Other lead compounds	M-122	Electrode	1301		0.00005	2	0	0

<General instructions>

- Fill out all applicable cells (excluding cases where no prohibited substance is included).
- Use one-byte characters for numerical characters and codes.
- Do not combine cells.
- Do not add columns.
- If you need more rows for data entry add the required number of rows. (Enter the applicable level, either 1 or 2, in the Level column of the added rows.)

If one component includes several applicable substances, use one column for each substance. Do not enter "Ditto" in the second row or below. Copy and paste the name entered in the first row.

If no applicable substance is found in one component, follow the procedures below.
 1) Enter "Not applicable" in the Substance Name column.
 2) Enter "0" in the Chemical Substance Content column.
 3) Enter "0" in the Non-use column. (Follow 1) and 2) for the Managed Substances.)

Assess the conformance to the non-use warranty requirements in consideration of the legal limits and exemptions.

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