



REACH SVHC and RoHS 2 Challenges and Solutions

Joint webinar from **SGS** and **ENVIRON**
26. JAN 2010

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ENVIRON

WHEN YOU NEED TO BE SURE

SGS

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New SVHCs on REACH Candidate List and REACH restricted substances that can be found in hardware products

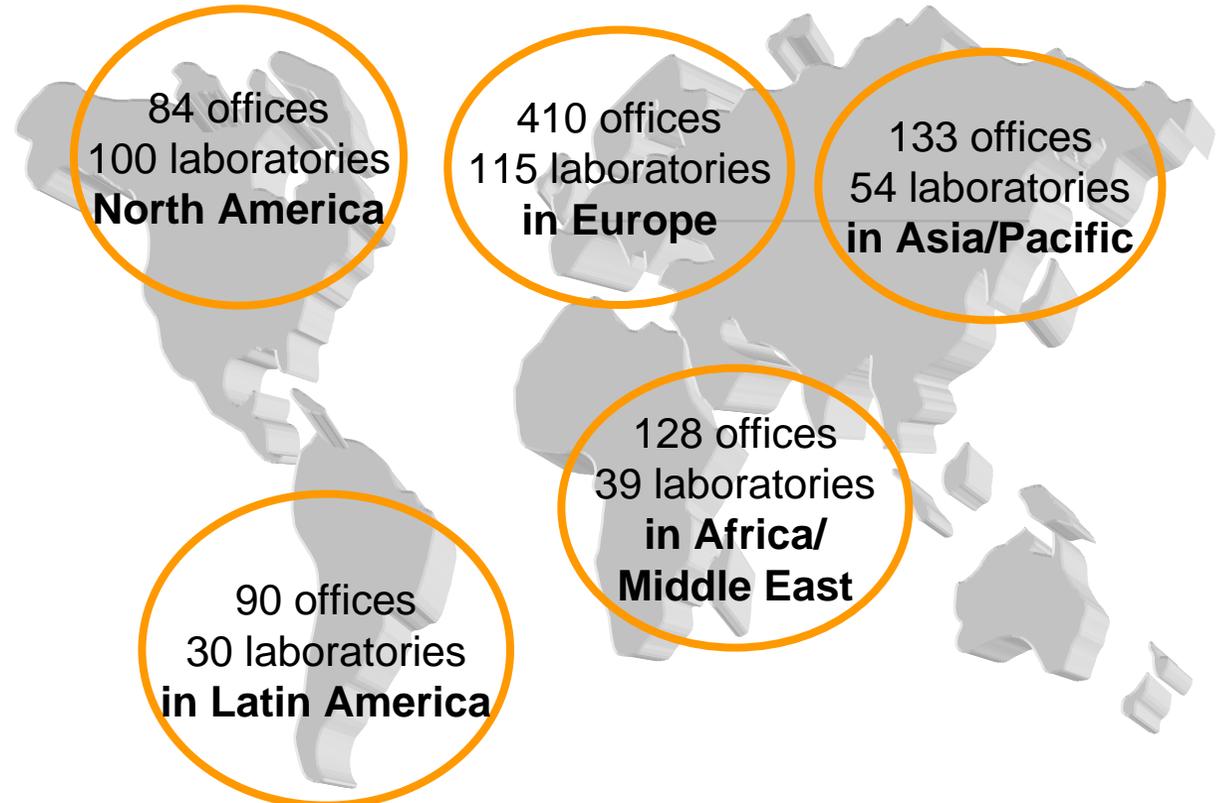
Industry-led substances declarations web database and shared list of restricted and declarable substances

Test Strategies for REACH SVHC, as well as REACH and RoHS restricted substances

Questions and answers

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 ENVIRON has announced the recent acquisition of successful Brazilian consultancy ARQUIPÉLAGO, establishing the firm's first offices in Latin America.

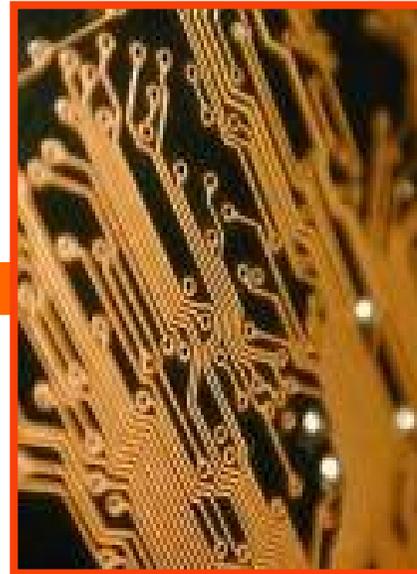
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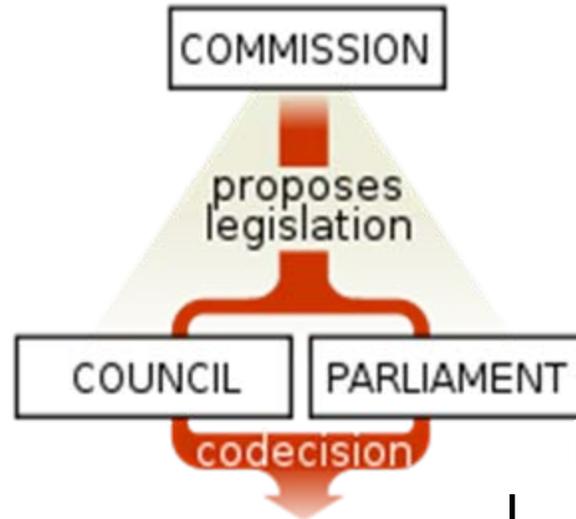
EXTENSIVE EXPERTISE

UK Govt. (DTI/DEFRA) RoHS & WEEE Guidelines		2003
UK Govt. EcoDesign Guidelines for Electronic Product Designers		2003
Web-based system to manage B2B WEEE compliance in multiple Member States	www.B2BWEEE.com	2005
First organisation to gain licence to operate a WEEE compliance scheme in the UK	www.B2BWEEE-Scheme.com	2007
Wrote several Joint Industry Statements on RoHS and WEEE for EU Medical Device Industry		2007 2008
Represented MD Industry at RoHS negotiations with the Commission		2008
Joint Industry Guide to REACH compliance for component suppliers & equipment manufacturers	available free from www.BOMcheck.net	2008
Integrated pan-European compliance service for WEEE, Batteries & Packaging compliance	www.B2BWEEE.com	2009

Timelines for RoHS2 implementation, current draft documents and proposed substance restrictions



CO-DECISION PROCESS



- First Reading in Council (Oct 2010)
- Adopts text on QMV (if amendments agreed) or adopts common position
- Second Reading in Council (Q1 2011) to consider final EP amendments
- Conciliation

- Parliament ENV Committee agree possible amendments (April 2010)
- Parliament votes on possible amendments (June 2010)
- Second Reading in Parliament (Q1 2011)
- Approval; no decision; rejection; propose further amendments
- Conciliation

COMMISSION PROPOSAL DEC 2008

- **List of product Categories included in RoHS**
- **Category 8: Medical Devices in scope from 2014**
 - In Vitro Diagnostics in scope from 2016
 - Active Implantables in scope from 2020
- **Category 9: Monitoring and Control in scope from 2014**
 - Industrial Monitoring and Control in scope from 2017
- **Confirmation of fixed installation exclusion**
- **Exemptions only valid for 4 years – industry must apply for renewal**
- **No change to the list of restricted substances – 4 substances targeted for early review for possible inclusion (HBCDD, DEHP, BBP and DBP)**
- **RoHS will be a CE Marking Directive**

COUNCIL COMPROMISE SEP 2009

- **List of product Categories removed from RoHS – all EEE covered unless specifically excluded in text of Directive**
 - New exclusion for Large Scale Industrial Tools
- **Category 8: Medical Devices in scope from 2014**
 - In Vitro Diagnostics in scope from 2016
 - Active Implantable in scope from 2020
- **Category 9: Monitoring and Control in scope from 2014**
 - Industrial Monitoring and Control in scope from 2017
- **Confirmation of fixed installation exclusion**
- **Exemptions only valid for 4 years – industry must apply for renewal**
- **RoHS will be a CE Marking Directive**

PARLIAMENT COMMITTEE

1st DRAFT REPORT NOV 2009 (1)

- **Current list of 10 product categories included in RoHS**
 - New category 11: All other EEE not covered in 1 – 10
 - Category 11 would come into scope from 2014
- **Category 8: Medical Devices in scope from 2014**
 - In Vitro Diagnostics in scope from 2016
 - Active Implantable in scope from 2020
- **Category 9: Monitoring and Control in scope from 2014**
 - Industrial Monitoring and Control in scope from 2017
- **No exclusion for Large Scale Industrial Tools**
- **Fixed Installation exclusion replaced by Stationary Installation and Transport Equipment exclusion**
- **Exemptions only valid for 4 years – industry must apply for renewal**
- **RoHS will be a CE Marking Directive**

New substance restrictions for Cat. 1–7 & 10

- To take effect 3.5 years after RoHS2 published (i.e. from 2014)
- Prohibited in concentrations > 0.1% in any homogenous material:
 - Brominated flame retardants (BFRs)
 - Chlorinated flame retardants
 - PVC
 - Chlorinated plasticiser
 - DEHP
 - BBP
 - DBP

7 new substances targeted for early review for possible inclusion in RoHS

- Arsenic compounds
- Bisphenol A
- Beryllium and its compounds
- Organobromines other than BFRs
- Antimony trioxide
- Organochlorines other than chlorinated
- Dinickeltrioxide flame retardants and plasticisers

COUNCIL COMPROMISE DEC 2009

- **List of RoHS product categories re-instated. The categories will remain in the new WEEE Directive and will be expanded to cover all EEE unless specifically excluded in text of the RoHS Directive**
 - New exclusion for Large Scale Industrial Tools
- **Category 8: Medical Devices in scope from 2014**
 - In Vitro Diagnostics in scope from 2016
 - Active Implantables in scope from 2020
- **Category 9: Monitoring and Control in scope from 2014**
 - Industrial Monitoring and Control in scope from 2017
- **Confirmation of fixed installation exclusion**
- **Exemptions only valid for 4 years – industry must apply for renewal**
- **RoHS will be a CE Marking Directive**

RoHS2 CE MARKING REQUIREMENTS



MANUFACTURERS RoHS2 CE MARKING REQUIREMENTS

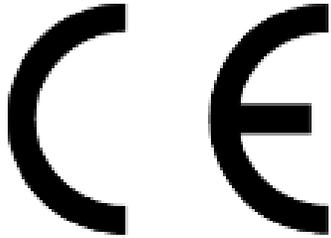
- Draw up technical documents and carry out internal production controls to ensure product meets RoHS restrictions
 - Provide declaration of conformity using the wording specified in RoHS2
 - Keep technical documents and declarations of conformity for 10 years after EEE put on the market
 - Carry out a **Risk Assessment** to assess level of sample testing required
 - Immediate action for non-compliant EEE including withdrawal or product recall if appropriate
 - If product represents a risk, manufacturer must inform RoHS authorities
 - **Ensure that compliant products* are marked with**
 - CE mark
 - Type, batch or serial number
 - Manufacturer name or trade mark, and contact address
- *if not possible to mark the product, then must mark the packaging or documentation accompanying the product

IMPORTERS RoHS2 CE MARKING REQUIREMENTS

- **Ensure that Manufacturer has**
 - Drawn up technical documents and carried out internal production controls
 - Marked product with CE mark, Manufacturer name and contact address, and type, batch or serial number
- **Importer must keep declarations of conformity for 10 years after EEE put on the market and ensure technical documents can be made available on request**
- **Importers must carry out a Risk Assessment to assess level of sample testing required**
 - Immediate action for non-compliant EEE including withdrawal or product recall if appropriate
 - If EEE represents a risk, Importer must inform RoHS authorities
- **Importer must mark product* with importer's name or trade mark, and contact address**
 - *if not possible to mark the product, then must mark the packaging or documentation accompanying the product

DISTRIBUTORS

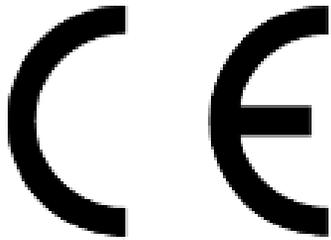
RoHS2 CE MARKING REQUIREMENTS



- Distributor must 'act with due care' to check that products are RoHS compliant
- Distributor must verify that product* marked with:
 - CE mark; Manufacturer name and contact address; Importer name and contact address; type, batch or serial number
- Distributor are not allowed to sell equipment if have 'reason to believe' it is not RoHS compliant
- If Distributor has 'reason to believe' it has sold non-compliant equipment
 - Must ensure that immediate action for non-compliant EEE including withdrawal or product recall, if appropriate, is taken
 - If EEE represents a risk, Distributor must inform RoHS authorities

*if not possible to mark the product, then must mark the packaging or documentation accompanying the product

RoHS2 CE TECHNICAL DOCUMENTATION



- **Technical documentation for internal production control must:**
 - Enable assessment of RoHS compliance for the product
 - Cover the design and manufacture of the product
 - Include a compliance **Risk Assessment**

- **Technical documentation must include:**
 - A general description of the product
 - Conceptual design and manufacturing drawings and schemes of components, sub-assemblies, circuits etc with sufficient explanations to enable their understanding
 - Results of examinations carried out
 - Test reports

CE DECLARATION OF CONFORMITY FOR RoHS2

No: _____ (*unique identification of the EEE*)

Name and address of Manufacturer or Authorised Representative: _____

**This declaration of conformity is issued under the sole responsibility of the
Manufacturer (or installer):** _____

Object of the declaration: _____ (*identification of the EEE allowing traceability.
It may include a photograph, where appropriate*)

**The object of the declaration described above is in conformity with the RoHS
Directive**

Signed for and on behalf of: _____

Place and date of issue: _____

Name, function, signature: _____

RoHS RISK ASSESSMENT PROCESS

Supplier qualification	Criteria	Risk Assessment
Type A	Supplier has very good understanding of RoHS, comprehensive & effective systems in place to ensure RoHS compliance & carries out selective analysis of high risk components /materials	Accept all supplier self-declarations without further testing
Type B	Supplier has good understanding of RoHS and has a system for ensuring RoHS compliance but may be lacking in some respect, e.g. does not analyse high risk components	Require recent sample test report for all high risk components
Type C	Supplier does not understand RoHS requirements or does not have system to ensure compliance and does not check incoming components/materials or declarations	Require recent sample test report for all high risk components + consider additional random testing

High risk components include the following examples: PVC; bright red, orange or yellow plastic, ABS, aluminium and galvanised steel with a yellow “tint”

BOMcheck system assists suppliers to become Type A suppliers.

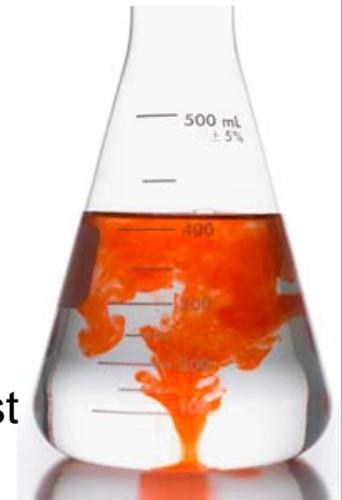
REACH – SVHC COMMUNICATION & NOTIFICATION



REACH – SVHC COMMUNICATION & NOTIFICATION

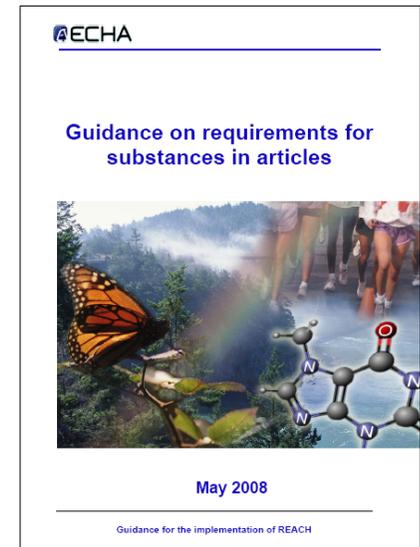
- Article 33 communication of **S**ubstances of **V**ery **H**igh **C**oncern (SVHC)
 - Who: In supply chain from manufacturer/importer to downstream user
 - Why: SVHC in non gaseous **substance, preparation, articles** >0.1 (w/w) or >0.2% (vol) in gaseous substances and preparations
 - What: Information on safe use (e.g. by Safety Data Sheet); at least name of substance (concentration to calculate tonnage)
 - When: Immediately from date of inclusion on candidate list (28th OCT 08)
At request of consumer within 45 days

- Article 7 notification of SVHC
 - Who: Manufacturer (based in EU member state) to ECHA (European Chemicals Agency)
 - Why: Same as Article 33
AND 1 tonne / year / legal entity over all products
 - What: Name of substance
Tonnage / Use
 - When: JUN 2011 & 6 months after inclusion in candidate list



REACH – SVHC COMMUNICATION & NOTIFICATION

- ECHA Guidance Documents on Requirements of Substances in Articles
 - Version 1 published MAY 2008
 - Version 2.01 Draft published OCT 2009
 - Chemical Analysis described in Chapter 5.2
 - Last Resort if information is unavailable or unreliable in supply chain
 - Guidance in a nutshell published JUN 2009
- Individual chemical testing of single SVHC candidates
- Full chemical screening
- Risk based chemical screening



REACH – SVHC COMMUNICATION & NOTIFICATION

ECHA candidate list on SVHC has substances **NOT** included in SIN or ETUC lists!
(e.g. Refractory Ceramic Fibers)

- Which scope of SVHC shall be communicated or tested?
- ChemSec: Substitute It Now (SIN List)
 - First Version published 16. AUG 2008 incl. 267 substances
 - Second Version published 13. OCT 2009 incl. 356 substances
 - Information on technical use only available for 140 substances



- European Trade Union Confederation: Priority List for Authorization
 - First version published 31. MAR 2009 incl. 306 substances
 - 89 substances included in SIN List



- ECHA candidate list of SVHC
 - 1st Candidate list published on 28. OCT 2008 incl. 15 SVHC
 - 2nd Candidate list published on 13. JAN 2010 incl. additional 14 SVHC
 - **Triggers REACH obligation and is legally binding**

SVHC candidate list published 28. OCT 2008	Used in hardware products?*
3 phthalate plasticisers: DEHP, DBP and BBP	Yes - PVC
HBCDD	Yes - High impact polystyrene
SCCP	Possible - rubber, sealants, etc
TBTO	Possible - polyurethane foam
Cobalt dichloride	Unlikely – blue silica gel
Diarsenic pentoxide	Unlikely – specialist glass
Diarsenic trioxide	Unlikely – specialist glass
MDA	Very unlikely
Anthracene	Very unlikely
Sodium dichromate (dehydrate form)	Very unlikely – Cr(VI) compounds already restricted under RoHS
Musk xylene	Very unlikely
Lead hydrogen arsenate	Very unlikely
Triethyl arsenate	Very unlikely

* Generalized statement. Product specific assessment recommended. Hardware = electric/electronic.

SVHC candidate list published 13. JAN 2010	Used in hardware products?*
Plasticiser: DIBP	Yes - cellulose resin ,vinyl resin, acrylonitrile-butadiene rubber, chlorinated rubber, PVC
Flame retardant: Tris(2-chloroethyl) phosphate	Yes - polyurethane foam, polyisocyanurate foam, PVC, acetyl cellulose, polystyrole
Lead chromate, lead chromate molybdate sulfate red, lead sulfochromate yellow	Unlikely - Lead compounds already restricted under RoHS
2,4 – Dinitrotoluene	Very unlikely
Five variants of anthracene oils and pastes	Very unlikely
Aluminosilicate and Zirconia Aluminosilicate refractory ceramic fibres	Very unlikely
Coal tar pitch	Very unlikely

- [SVHC list on European Chemicals Agency webpage](#)

ECHA registry of intentions for SVHC	Used in hardware products?*
Trichloroethylene	Possible – Volatile solvent used as degreaser
Arsenic Acid and it's salts	Likely – Represents ca. 30 individual substances of relevance
Residues (Coal Tar), pitch distillates	Very unlikely
Distillates (Coal Tar), heavy oils	Very unlikely
Distillates (Coal Tar), heavy oils, pyrene fraction	Very unlikely
Distillates (Coal Tar), pitch, pyrene fraction	Very unlikely
Disodium Tetraborate Decahydrate	Unlikely
Sodium chromate	Very unlikely – Cr(VI) compounds already restricted under RoHS
Ammonium dichromate	
Potassium dichromate	
Potassium chromate	

■ [Ref.European Chemicals Agency webpage](#)

REACH – RESTRICTED SUBSTANCES



REACH – RESTRICTED SUBSTANCES

- Article 67 and Annex XVII restrict the manufacturing, placing on the market and use of certain dangerous substances as such, in preparations or articles
- EC Regulation 552/2009 of 22. JUN 2009
- Replacing EC directive 76/769/EEC
- REACH allows EC member states to use more stringent limits
 - E.g. NL prohibits SCCP as flame retardants in rubber, plastic, and textile
- Annex XVII **most frequent reason for REACH related product withdrawal** by market surveillance
- Limits based on **single materials** and **not on whole article**

REACH – RESTRICTED SUBSTANCES

■ Phthalates as example for Annex XVII regulation

51. The following phthalates (or other CAS and EC numbers covering the substance):
- | | |
|---|--|
| <p>(a) Bis (2-ethylhexyl) phthalate (DEHP)</p> <p>CAS No 117-81-7
EC No 204-211-0</p> | <p>1. Shall not be used as substances or in mixtures, in concentrations greater than 0,1 % by weight of the plasticised material in toys and childcare articles.</p> |
| <p>(b) Dibutyl phthalate (DBP)</p> <p>CAS No 84-74-2
EC No 201-557-4</p> | <p>2. Toys and childcare articles containing these phthalates in a concentration greater than 0,1 % by weight of the plasticised material shall not be placed on the market.</p> |
| <p>(c) Benzyl butyl phthalate (BBP)</p> <p>CAS No 85-68-7
EC No 201-622-7</p> | <p>3. The Commission shall re-evaluate, by 16 January 2010, the measures provided for in relation to this entry in the light of new scientific information on such substances and their substitutes, and if justified, these measures shall be modified accordingly.</p> <p>4. For the purpose of this entry “childcare article” shall mean any product intended to facilitate sleep, relaxation, hygiene, the feeding of children or sucking on the part of children.</p> |

REACH – RESTRICTED SUBSTANCES

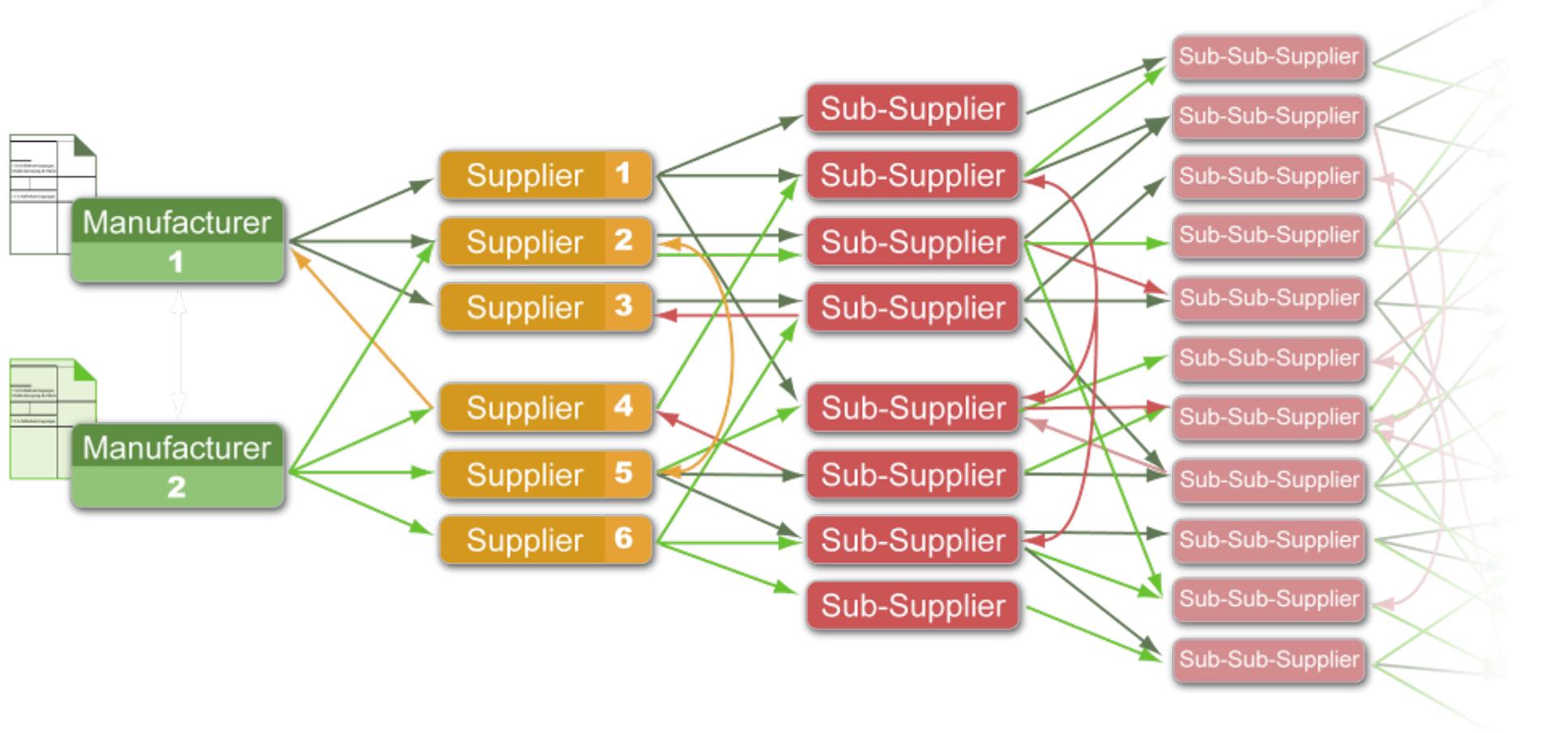


<p>2009 - 38</p>	<p>2 1266/09</p>	<p>Germany</p>	<p>Category: Toys Product: Soft toy - Rhinoceros</p> <p>Brand: Type/number of model: Season: 207, WGR: 912, 50514009121000000199</p> <p>Description: Grey soft toy rhinoceros, height approximately 7 cm, length approximately 13 cm.</p> <p>Country of origin: Hong Kong</p> 	<p>Chemical</p> <p>The product poses a chemical risk because it contains 1% of dibutyl phthalate (DBP) by weight. According to the REACH Regulation, certain phthalates in toys are prohibited.</p>	<p>Voluntary recall from consumers by the distributor.</p>	
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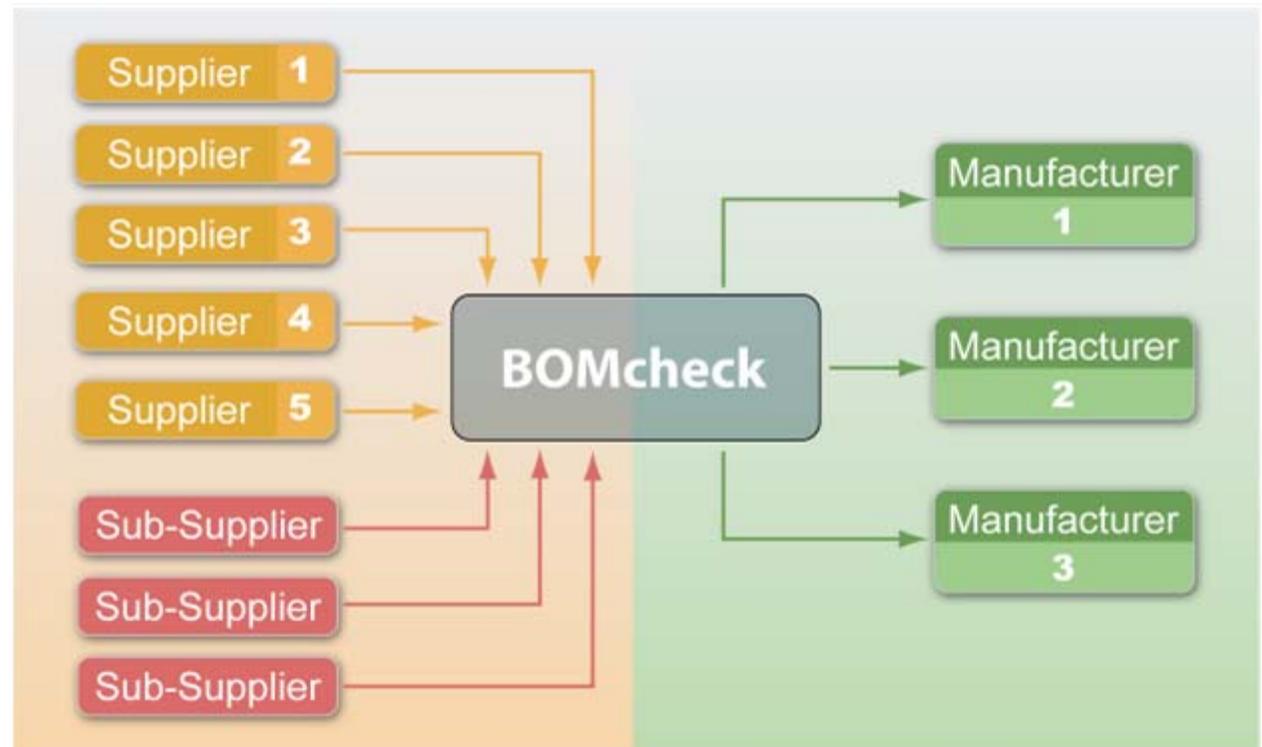
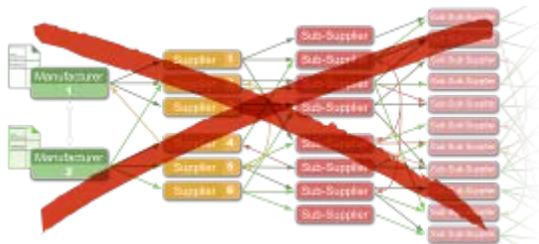
Industry-led substances declarations web database and shared list of restricted and declarable substances



If each manufacturer sends its own REACH survey to their suppliers every 6 months ...



One system for all manufacturers and suppliers at all levels in the supply chain



Great news for Suppliers!

These are some of the OEMs who are collaborating through www.BOMcheck.net to share

- one list of restricted and declarable substances for regulatory compliance (REACH, RoHS, etc)
- one web database system to reduce costs for suppliers and improve data quality

Suppliers save time and costs

Expert regulatory guidance

- all substances which are restricted or declarable for hardware products by regulations in main markets (US, EU, Asia Pacific etc)
- detailed information on where these substances can be found in materials or parts of hardware products and any exemptions that apply
- knowing where to look for the restricted and declarable substances reduces sample testing costs for REACH, RoHS etc
- BOMcheck notifies suppliers when new substances become regulated and explains how the requirements apply to hardware products

One web system with easy-to-use declaration tool

- suppliers use one web system to share compliance data directly with multiple OEMs
- easy-to-use declaration tool includes step-by-step expert guidance and confidentiality options

Improved data quality

- built-in electronic signatures which comply with US FDA regulations
- suppliers can attach chemical test certificates to validate their substance declarations

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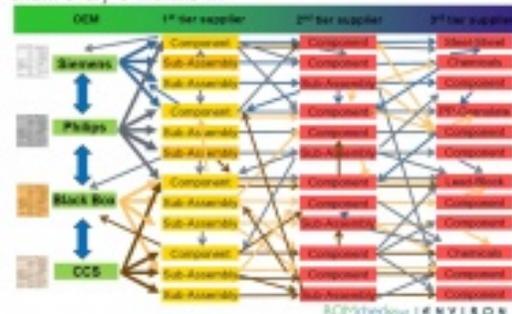
[Create a supplier account](#)[Request a manufacturer's agreement](#)

TESTED 15-JAN

Substances declarations web database for REACH, RoHS, Batteries and Packaging compliance

A wide range of OEMs, distributors and contract manufacturers are using [BOMcheck](#) to manage substance declarations from their supply chains for REACH, RoHS, Batteries and Packaging compliance. The centralised open-access database is the only realistic way to manage compliance with the new declarable substances of very high concern (SVHCs) which will be added to the REACH Candidate List every 6 months from August 2009. The European Chemicals Agency intends to add about 25 new substances per year to the list!

Each OEM sends their own REACH survey to their supply chain every 6 months ...



BOMcheck industry-wide web database



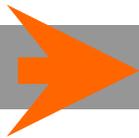
Play pre-recorded presentations and demonstrations

ENVIRON Sites

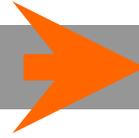
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ONE DECLARATION FOR LIST OF PARTS

Supplier upload



BOMcheck



Manufacturer download

Follow expert guidance in declaration tool

REACH candidate list substances which may be found in electrical and electronic equipment

Substance	Likely to be found in EEE?	What percentage w/w of the substance does the part contain?
Plasticisers		
BPP (Benzylbutyl phthalate)	Yes. Widely used as plasticisers in polymer products, particularly PVC. In flexible PVC, the typical phthalate content ranges from 30% to 45% w/w. The phthalates are also used in sealants, adhesives, nitrocellulose paints, inks, lacquers and in ceramic m	<input type="radio"/> <0.01% <input type="radio"/> 0.01 - 0.1% <input type="radio"/> >0.1%
DBP (Dibutyl phthalate)	Yes. Widely used as plasticisers in polymer products, particularly PVC. In flexible PVC, the typical phthalate content ranges from 30% to 45% w/w. The phthalates are also used in sealants, adhesives, nitrocellulose	<input type="radio"/> <0.01% <input type="radio"/> 0.01 - 0.1% <input type="radio"/> >0.1%

RoHS compliance data

RoHS compliance for product XYZ

Part numbers beginning with: Part name containing:

Part number	EU RoHS without exemptions	EU RoHS with exemptions	China RoHS - alloy marking with "E" code	Declaration
Components 'R' Us - DUNS number: 987654321				
803196	Yes	Yes	Yes	Approved: 2 Jul 2009
823235	No	Yes	No	Approved: 5 Jul 2009
825604	r2	<input checked="" type="checkbox"/> Cadmium <input checked="" type="checkbox"/> Hexavalent Chromium <input checked="" type="checkbox"/> Lead <input checked="" type="checkbox"/> Mercury <input checked="" type="checkbox"/> PBBs <input checked="" type="checkbox"/> PBDEs	<input checked="" type="checkbox"/> Cadmium <input checked="" type="checkbox"/> Hexavalent Chromium <input checked="" type="checkbox"/> Lead <input checked="" type="checkbox"/> Mercury <input checked="" type="checkbox"/> PBBs <input checked="" type="checkbox"/> PBDEs	Approved: 5 Jul 2009 Full details Evidence document Backlinks compliance statement
Weight: 5 gm				
826357	r1	Yes	No	Approved: 5 Jul 2009
Ace Supplier - DUNS number: 123456789				
1015090AAPC	r1	Yes	Yes	Approved: 20 Jul 2009
33145002LCFL	No	Yes	No	Approved: 13 Oct 2009
33411L	Yes	Yes	Yes	Approved: 20 Jul 2009
334226	No	Yes	No	Approved: 13 Oct 2009

Attach list of part numbers, names, weights

	A	B	C
1	33145002LCFL	Name A	1
2	33145302LCFL	Name B	2
3	33145002LCSC	Name C	3
4	33145302LCSC	Name D	4
5	33145002LCJL	Name E	5
6	33145302LCJL	Name F	6
7	33145002NCSC	Name G	7

REACH compliance data

REACH candidate list substances for product XYZ

Part numbers beginning with: Part name containing:

Part number	Candidate list substance present < 0.1% w/w	Declaration
Components 'R' Us - DUNS number: 987654321		
803196	No	Approved: 2 Jul 2009
823235	No	Approved: 5 Jul 2009
825604	r2	Approved: 5 Jul 2009
826357	r1	Approved: 5 Jul 2009
Ace Supplier - DUNS number: 123456789		
1015090AAPC	r1	Approved: 20 Jul 2009
33145002LCFL	Yes	Approved: 13 Oct 2009
33411L	No	Approved: 20 Jul 2009
334226	No	Approved: 13 Oct 2009
33721002LCS	r2	Approved: 13 Oct 2009

Electronic signature, can attach PDF test report, can e-mail PDF, CSV or XML files

Can output PDF, CSV or XML file

INDUSTRY-LED SOLUTION

BOMcheck Steering Group

- Siemens, Philips, GE, Osram, Toshiba, Agfa, Texas Instruments, FUJIFILM
- Web meeting / conference call every 2 months:
 - Direct development of new functions and features on BOMcheck
 - Plan joint rollout to suppliers (letters + follow-up, invitations to training webinars etc)

BOMcheck Substance List Working Group

- Siemens, Philips, Osram, Agfa, Toshiba, Texas Instruments, Epcos
- Web meeting / conference call every 2 months to:
 - Maintain one list of restricted and declarable substances for all OEMs on BOMcheck
 - Update list as new substances added to REACH, etc
 - Coordinate with JIG, IEC and IPC substance lists
 - Interface with Japanese JAMP FMD system
- **All collaboration closely monitored to ensure compliance with Competition Laws**

FREE TRAINING FOR SUPPLIERS

- **OEMs send joint invitation to all suppliers to attend **introduction webinar****
 - REACH, RoHS, Batteries and Packaging regulations
 - BOMcheck.net demonstration
 - 1.5 hours
 - Free-of-charge
 - Suppliers encouraged to invite their sub-suppliers etc
- **After supplier joins BOMcheck, they receive invitation to **expert user webinar****
 - User Guide for Suppliers and Manufacturers
 - Detailed step-by-step demonstration of all tools on BOMcheck
 - 1.5 hours
 - Free-of-charge
- **Two **introduction webinars** and two **expert user webinars** each month**
 - US/EU suppliers
 - Asia Pacific/EU suppliers

PLM DATA MANAGEMENT TOOLS

■ Mapping tool

- Maps list of supplier part number against list of OEM or distributor part numbers
- When the supplier updates the declaration status of their part number this automatically updates the declaration status of all mapped part numbers.

■ Assembly tool

- Store BOM structure in BOMcheck to calculate compliance for an assembly
- BOMcheck updates assembly compliance if a supplier updates declaration status of their part number

■ Boxed product tool

■ Create REACH Article 33 reports to send to customers

■ Watchlist tool notifies if suppliers change status of their part numbers

■ Can upload IPC 1752-1 and IPC 175x XML files

■ Can download BOMcheck data into any IT system

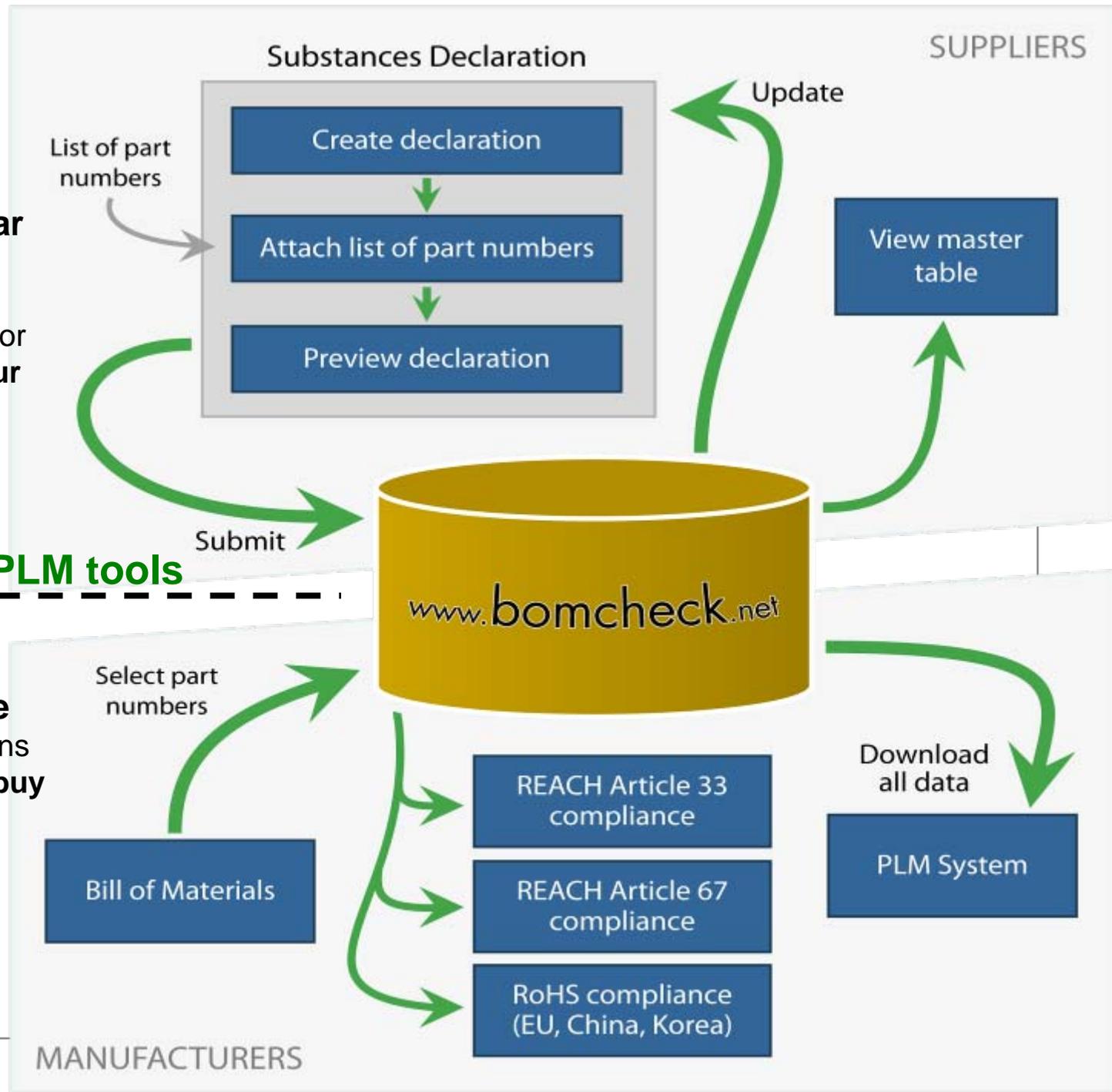
- Partner programme with TechniData, PTC



Supplier account = €300/year
Access to BOMcheck guidance & declarations tool to generate & maintain substance declarations for **part numbers you supply to your customers**

‘Super User’ Account: PLM tools

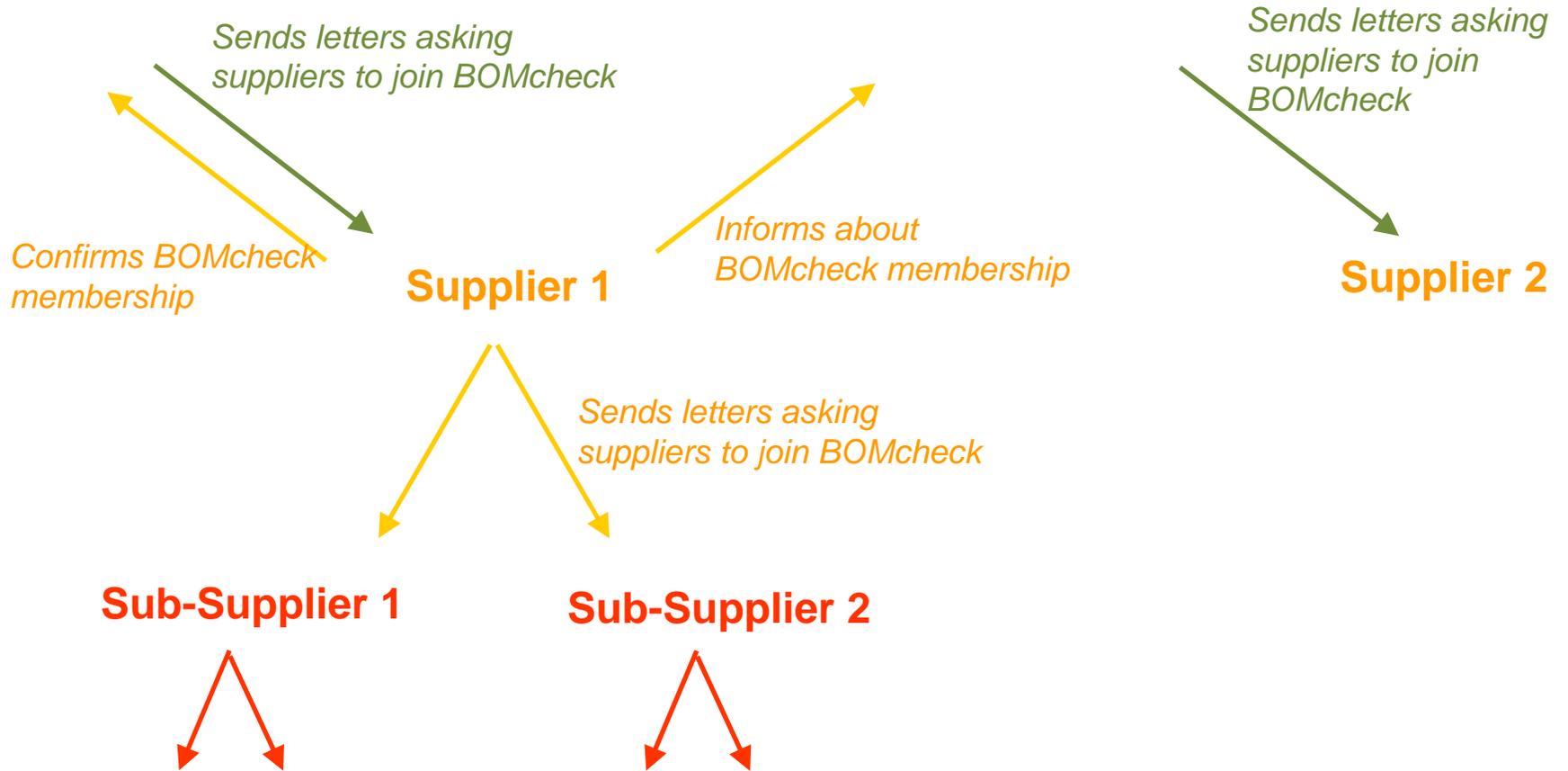
Manufacturer account = free
Access to download all declarations data, e.g. for **part numbers you buy from your suppliers**



HOW BOMcheck CASCADES THROUGH SUPPLY CHAIN

Manufacturer 1

Manufacturer 2



RoHS AND SVHC – TEST STRATEGIES



RoHS AND SVHC – MATERIAL BASED RISK ASSESSMENT

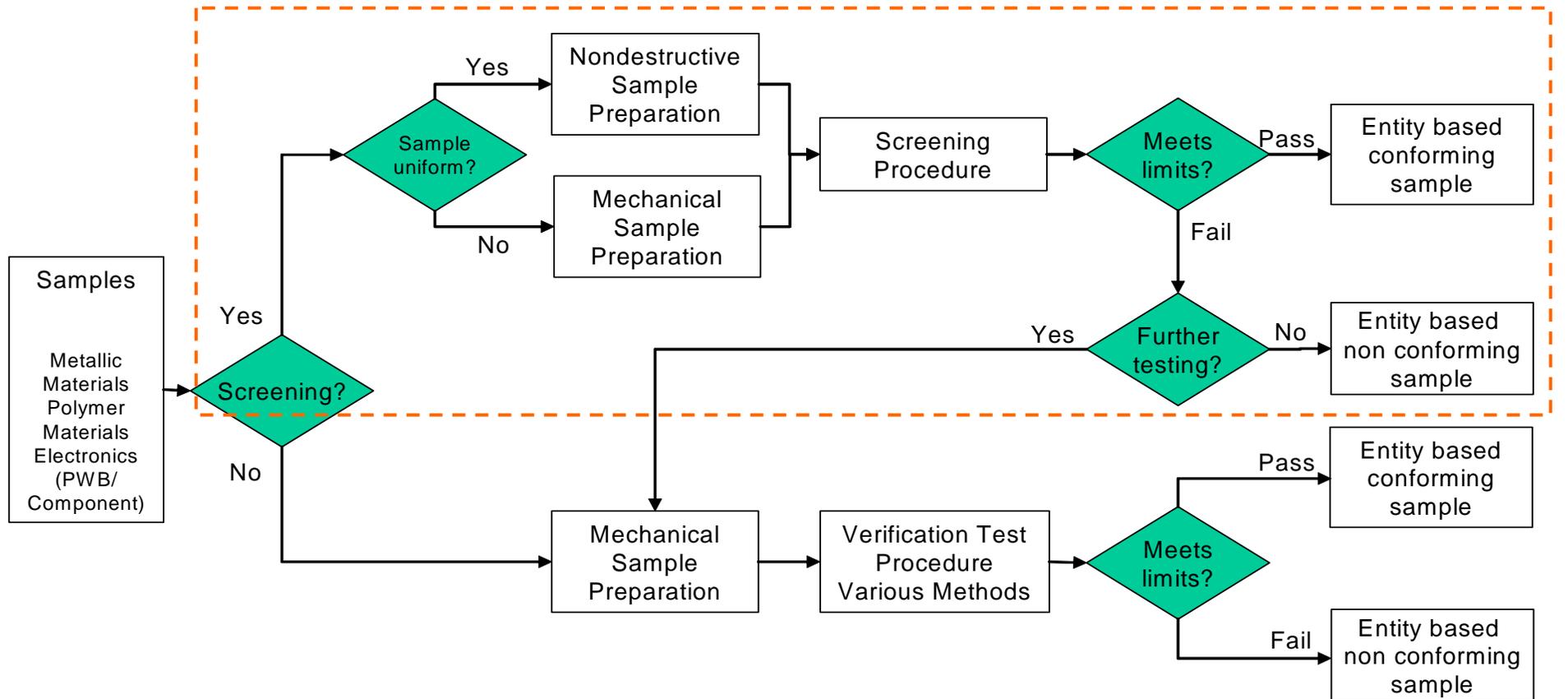
- What is a risk assessment?
 - Guidance documents available:
 - Joint Industry Guide: JIG-101 Ed. 2.0
 - British Toy and Hobby Association: Guideline on SVHCs in REACH
 - RAPEX Risk Assessment Guidelines for non-food Consumer Products
- Material based risk assessment build on SGS database
 - Use of reliable information from constantly updated analytical database
- Possible to establish product specific risk assessment on detailed BOM



- Confirmation test example: Phthalates in toys
 - Based on EN 14372
 - Drying of the sample material for 30min @ 105°C
 - Mechanical sample preparation by cutting
 - 6h Soxhlet extraction with diethyl ether
 - Evaporation of diethyl ether; resume residue in n-hexane
 - Determination by gas chromatography - mass selective detector (GC-MS)
- Testing in accordance to REACH Annex XVII
 - Relies on long existing and reliable test procedures
 - Helps to avoid forced market withdrawal



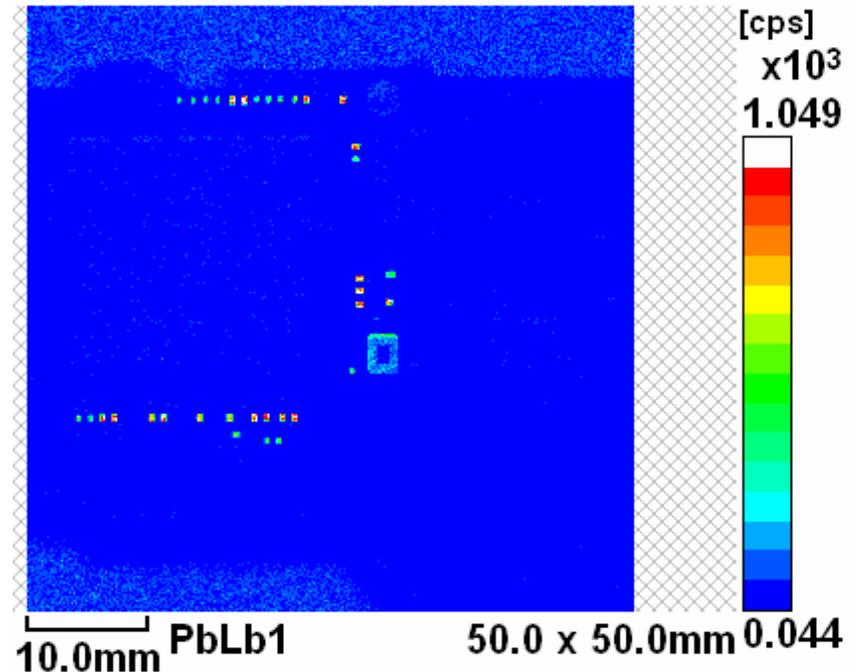
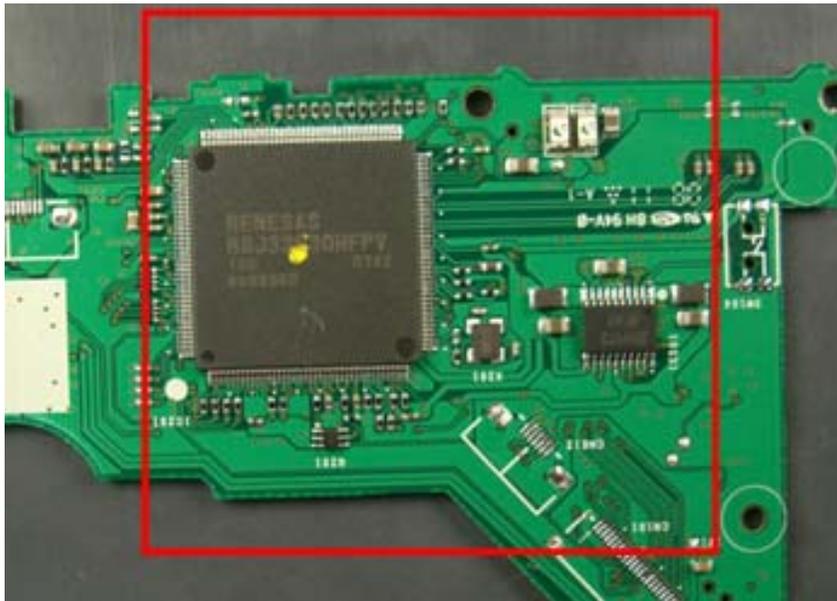
RoHS – TEST STRATEGIES



Source: IEC 62321

RoHS – TEST STRATEGIES

- XRF-Screening based on IEC 62321 – Mapping or spot test
 - Fast and inexpensive
 - Analysis of Br and Cr, total as tracer for Cr(VI) and PBB/PBDE
 - Analysis of Pb, Cd, and Hg
 - Analysis by trained personal (X-Ray protection)



- Wet chemical analysis for confirmation test based on international standard IEC 62321
- Determination of restricted flame retardants
 - Extraction with organic solvent
 - Analysis with GC-MS
- Determination of heavy metals
 - Total digestion based on material matrix
 - Analysis by spectrometric techniques
- Determination of hexavalent chromium
 - Extraction and photometric analysis
 - Deficits for Cr(VI) coating assessment



- IECEE Hazardous Substance Testing Service (HSTS)
 - IECEE = IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components

- HSTS provides:
 - A Test Report, in the format defined by IECEE WG20 issued by an IECEE Certification Body/HS laboratory
 - An STR (Statement of Test Results) granted by an NCB (National Certification Body)

- HSTS provided by e.g. [SGS Fimko under the roof of IECEE](#)

- IECEE HSTS determines and reports the level of HS in **materials and components** used in EEE

- RoHS2 CE marking requirements based on directive 768/2008/EC, Annex II, Module A
- SGS is a notified body and able to support you in fulfilling the requirements with CE marking
 - One stop service
 - e.g. Establish Test Reports
 - e.g. Administration of technical Construction File
 - e.g. Administration of the Declaration of Conformity
- For details of CE mark related services by SGS please visit [this page](#)



Contact Details

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WHEN YOU NEED TO BE SURE

SGS