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Restricted Substances Database

Presented by:
Andrew Miller & Kim Marshall
Granta Design



www.emitconsortium.com

Agenda

- **Progress**
- **Review of RSDB**
- **Case studies**
- **Review of update plan**

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Progress

- RSDB updated to use v3 functionality
- All Legislations checked
 - Internally & external consultant
- REACH Legislations updated
 - Recommendations for Authorisation List
 - Proposed Substances for Candidate List (SVHCs)
 - Annex XVII – Restrictions
- Case studies being developed



Restricted Substances Database

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home browse search select report options admin help quick search

EMIT CONSORTIUM EMIT CONSORTIUM RESTRICTED SUBSTANCES DATABASE

This is the EMIT Consortium Restricted Substances Database blah blah into text here

Legislations

BROWSE the list of legislations using the tree view (left) Browse

SEARCH for legislations Search

Restricted Substances

BROWSE the list of substances using the tree view (left) Browse

SEARCH for substances using CAS#, EC# or chemical name acid Search

Materials & Articles

BROWSE MaterialUniverse using the tree view (left) Browse

BROWSE bought-in articles using the tree view (left) Browse

SEARCH for materials or articles steel Search

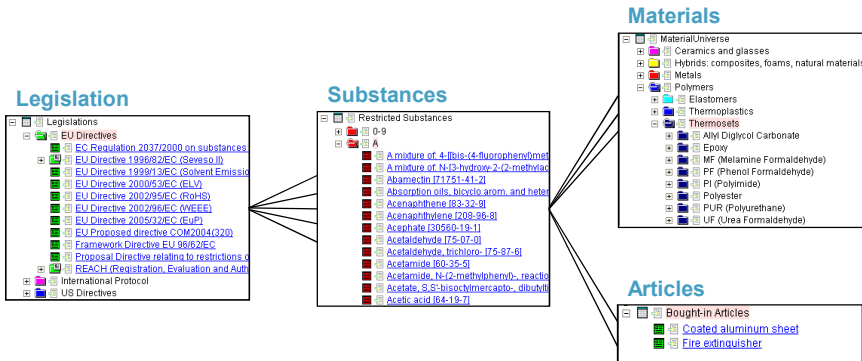
Powered by GRANTA MI from [Granta Design](#)



Restricted Substances Database

The restricted substances database stores information on

- Current legislation
- The substances that they affect
- Materials, processes & articles that contain those substances



Legislation Table

General information

- Summary
- Issue/Effective dates
- Application/Region
- Rating

List of substances affected

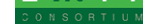
- Links to substance record
- Exclusions

Further information

- Hyperlinks to online resources

EU Directive 2000/53/EC (ELV)
Restricted Substances Database > Legislations (Legislations)

General Information	
Title	The End-Of-Life Vehicle Directive (ELV)
Rating	Banned
Issue date	18 September 2000
Effective date	21 October 2000
Application	Automotive
Geographical area	EU
Substances impacted (summary)	
This legislation affects at least 4 substances. To show a full list, click the blue icon to the right.	
Summary of legislation	
The aim of this Directive is to increase the rate of re-use and recovery to 85% in terms of average weight per vehicle/year by 2006, and to 95% by 2015, and to increase the rate of re-use and recycling over the same period to at least 80% and 85% respectively in terms of average weight per vehicle/year. Less stringent objectives may be set for vehicles produced before 1980.	
Exclusions	
See Annex II of the consolidated text. Attention: nearly all exemptions expired on 1 July 2008. The Annex II of the EC Directive 2000/53/EC is amended by the Decision 2002/525/EC, which specifies that the use of Cr(VI) is forbidden except for corrosion preventing of key components not exceeding a maximum of	
Detailed list of substances affected	
Substances affected	4 Linked Record(s)
Cadmium [7440-43-9]	
Hexavalent chromium [18540-29-9]	
Lead [7439-92-1]	
Mercury [7439-97-6]	
Further information	
Reference 1	http://ec.europa.eu/environment/waste/ely_index.htm
Reference 2	http://www.speciation.net/Public/Document2005(1)2(1)5(1)842.html



Legislation Table

Subsets are defined in this table to filter which legislations are visible

- Geographic region
- Other subsets can be created for your database
 - ▶ Application
 - ▶ Others?

Legislations
All legislations Subset (change)
Asian Directives
Legislations
US legislations Subset (change)
US Directives
Legislations
EU legislations Subset (change)
EU Directives
EC Regulation 2037/2000 on substances that deplete the ozone layer
EU Directive 1996/82/EC (Seveso II)
EU Directive 1999/13/EC (Solvent Emissions Directive - VOC)
EU Directive 2000/53/EC (ELV)
EU Directive 2002/95/EC (RoHS)
EU Directive 2002/96/EC (WEEE)
EU Directive 2003/53/EC
EU Directive 2005/32/EC (EuP)
EU Directive 96/62/EC Ambient Air Framework
EU Proposed directive COM2004(320)
Proposal Directive relating to restrictions on the marketing of certain mea
REACH (Registration, Evaluation and Authorisation of Chemicals)
UK Directives

Substances Table

General information

- Reference numbers
- Synonyms
- REACH status

Legislation

- List of legislations
- Summary showing 'worst' rating

lead chromate [7758-97-6]
Restricted Substances Database > Restricted Substances (Restricted Substances) Change Layout

General Information

Chemical name	lead chromate
CAS number	7758976
CAS number (delimited)	7758-97-6
EC number	231-846-0

Synonyms

lead (II) chromate, lead chromate (IV), chrome yellow, chromic acid lead (II) salt, canary chrome yellow 40-2250, chrome green, chrome green UC61, chrome green UC74, chrome green UC76, chrome lemon, crociote, dianichi chrome yellow G, lemon yellow, king's yellow, Leipzig yellow, lemon yellow, Paris yellow, pigment green 15, plumbous chromate, pure lemon chrome L3GS, various further names

Last updated 24 March 2009

REACH Information

Pre-registered?	Yes
SVHC under Annex XV?	No
SVHC criterion	Classified CMR

Legislation affecting this substance

Legislations restricting its use

Legislation name	Legislation rating	Effective date	Geographical area	Data source
Proposed SVHC for the Candidate List	Caution		EU	Legislations
REACH Pre-registration	Regulated		EU	Legislations
REACH (Registration, Evaluation and Authorisation of Chemicals)	Regulated	1 June 2007	EU	Legislations
REACH SII List 1.0 (Substitute it now)	Caution		EU	Legislations
SAE AS9535 Declarable Substances	Caution		Worldwide	Legislations

[View all data for Legislations restricting its use](#)
Granta provides no warranty for the accuracy of this data

Materials

Declaration information

List of Substances

- CAS#
- Amount
 - ▶ weight
 - ▶ weight (%)
- 'Worst' rating
- List of legislations

Steel 11SMnPb30
Restricted Substances Database > Materials - in house (All materials)

Restricted substance information

Weight of item (as delivered, excludes packaging) 0.0551 lb

Requester name Company XYZ
Request date 10/5/2009
Requester item number R222
Declaration number 4321-3

Restricted substances associated with this material

Substance name	CAS#	Weight percent (%)	Substance rating	Exemptions	Category	Legislation name	Legislation rating
Manganese [7439-96-5]	7439-96-5	1.1	Regulated			The EPA's List of Lists (LoL) REACH (Registration, Evaluation and Authorisation of Chemicals) SAE AS9335 Declarable Substances ECRA Section 313, Toxic Chemicals REACH Pre-registration	- Regulated Caution - Regulated
Phosphorus [7723-14-0]	7723-14-0	0.055	Regulated			ECRA Section 302, Extremely Hazardous Substances (EPQ) The EPA's List of Lists (LoL) REACH (Registration, Evaluation and Authorisation of Chemicals) CHS - Chemicals of Concern (CoC) ECRA Section 313, Toxic Chemicals REACH Pre-registration	- - Regulated - Regulated -
Lead [7439-92-1]	7439-92-1	0.275	Banned	Yes	Incorporated	EU Directive 90/269 Ambient Air Framework SAE AS9335 Declarable Substances	- Caution

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Bought-in Articles

Declaration information

List of Substances

- CAS#
- Amount
 - ▶ weight
 - ▶ weight (%)
- 'Worst' rating
- List of legislations

Wire Harness Assy Current
Restricted Substances Database > Bought-in Articles (Bought-in Articles)

Article information

Requester item number R1234
Supplier name Supplier A
Supplier item name Wire Harness Assy Current
Requester name Company XYZ
Supplier item number S1234
Weight of item (as delivered, excludes packaging) 0.11 lb

Declaration

Request date 5 October 2009
Declaration number 9876
Date of declaration 15 October 2009
Declaration prepared by A. Person

Restricted substance information

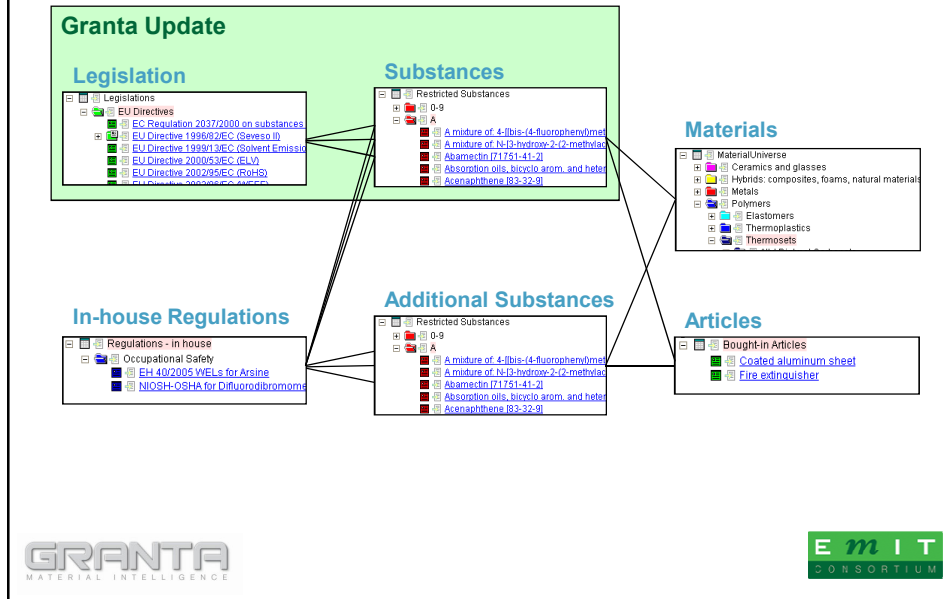
Restricted substances associated with this article

Substance name	CAS#	Weight percent (%)	Category	Data source	Substance rating	Exemptions	Legislation name	Legislation rating
Copper [7440-50-9]	7440-50-9	26	Legislations	Regulated			CERCLA hazardous substances ECRA Section 313, Toxic Chemicals The EPA's List of Lists (LoL) REACH Pre-registration REACH (Registration, Evaluation and Authorisation of Chemicals) SAE AS9335 Declarable Substances ECRA Section 304, Extremely Hazardous Substances (EHS)	- - Regulated Regulated Caution -
Manganese [7439-96-5]	7439-96-5	0.55	Legislations	Regulated			The EPA's List of Lists (LoL) REACH (Registration, Evaluation and Authorisation of Chemicals) SAE AS9335 Declarable Substances ECRA Section 313, Toxic Chemicals REACH Pre-registration	- Regulated Caution - Regulated
Antimony trioxide [1309-64-1]	1309-64-1	0.457	Incorporated	Legislations	Regulated		CERCLA hazardous substances The EPA's List of Lists (LoL) REACH Pre-registration	- Regulated

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GRANTA MI Restricted Substances Database



Legislation Ratings - Definitions

- **Banned**
 - ▶ Specifically bans use of material/chemical
- **Banned with Exemptions**
 - ▶ Specifically bans use of material/chemical, except in certain exempt applications
 - ▶ Includes legislations that state a substance is banned for particular applications
- **To be Phased Out**
 - ▶ Sets a deadline for the removal of substances from the market. Only legislation which specifies phase out dates falls into this category.
- **Regulated**
 - ▶ Places controls on the use and marketing of substances.
- **Caution**
 - ▶ Instruments of change other than law or regulation which affect substances in process or production materials. E.g. international treaties, and voluntary industry standards.
- **Unregulated/Unrated**
 - ▶ Listed in the RSDB for other reasons and may be outside the scope of legislation affecting substances in production and processing materials.
 - ▶ Includes legislation records that are provided for reference purposes

Legislations in Current Database

Banned/Banned with Exemptions

- EU Directive 2000/53/EC (ELV)
- EU Directive 2002/95/EC (RoHS)
- China RoHS
- REACH
 - ▶ Annex XIV - Authorisation List
 - ▶ Annex XVII – Restrictions
- UK Directive 2004/1816
- EC Regulation 2037/2000 (Ozone Depletion)
- US Phase-out of Class I Ozone-Depleting Substances

To be Phased Out

- [Recommendations for REACH Annex XIV \(Authorisation List\)](#)
- [US Persistent Organic Pollutants List \(POP\)](#)
- [US Phase-out of Class II Ozone-Depleting Substances](#)
- [Montreal Protocol \(international\)](#)

Regulated

- REACH
 - ▶ Annex XV - SVHCs Candidate List
 - Prioritisation of Annex XV
 - ▶ Pre-registration
- EU Directive 67/548/EEC The "Dangerous Substances Directive"

Caution

- [Proposed SVHCs for REACH Annex XV \(Candidate List\)](#)
- REACH Registry of intentions
- REACH SIN list (Substitute it now)
- ASD/SAE-STAN 9536 Declarable Substances
- US National Waste Minimization Program - Priority Chemicals
- US National Toxicology Programme (NTP) - Report on Carcinogens (RoC)



Blue text = new updated records



Superseded Legislations

Superseded Legislations:

- For example in Europe, the [EU Limitations Directive](#) has been superseded by the REACH legislation: [Annex XVII – Restrictions](#)

Links provided from and to the superseded legislation

Ratings removed, but still appear for reference

EU Directive 76/769/EEC The "Limitations Directive"
Restricted Substances Database > Legislations (Legislations)

General Information

Title	The "Limitations Directive" for Dangerous Substances and Preparations
Rating	-
Geographical area	EU

Amendments/Sections

Amendments/Sections of the legislation 2 Linked Record(s)

- EU Directive 2003/11/EC
- EU Directive 2005/69/EC

Amendment

ANNEX XVII of REACH replaced this Directive in June 2009. It has been amended by EU Directive 2003/11/EC.

Aim of the amendment

Prohibition on the placing on the market and use of pentabromodiphenyl ether (Penta) and octabromodiphenyl ether (Octa).

This has been superseded by 1 Linked Record(s)

- Annex XVII - Restrictions



Legislations provided for reference

- **Legislations provided for reference:**
 - Some substance lists or legislations may be useful for reference purposes, but fall outside scope of RSDB
 - Do not have a rating e.g. Kyoto protocol

- **EU**
 - EU Directive 2002/96/EC (WEEE)
 - EU Directive 2005/32/EC (EuP)
 - EU Directive 1996/82/EC (Seveso II)-
EU Directive 2003/105/EC
 - EU Directive 1999/13/EC (Solvent Emissions Directive - VOC)
 - And some UK directives...

- **US**
 - Severely restricted pesticides, Prior Informed Consent (PIC)
 - CERCLA/SARA/EPCRA
 - US Air Toxics Regulations (NESHAP)
 - US EPA 33/50 Program (EPA 17 materials)
 - US Department of Homeland Security (DHS) - Chemicals of Concern (CoC)
 - EPA list

Exemptions

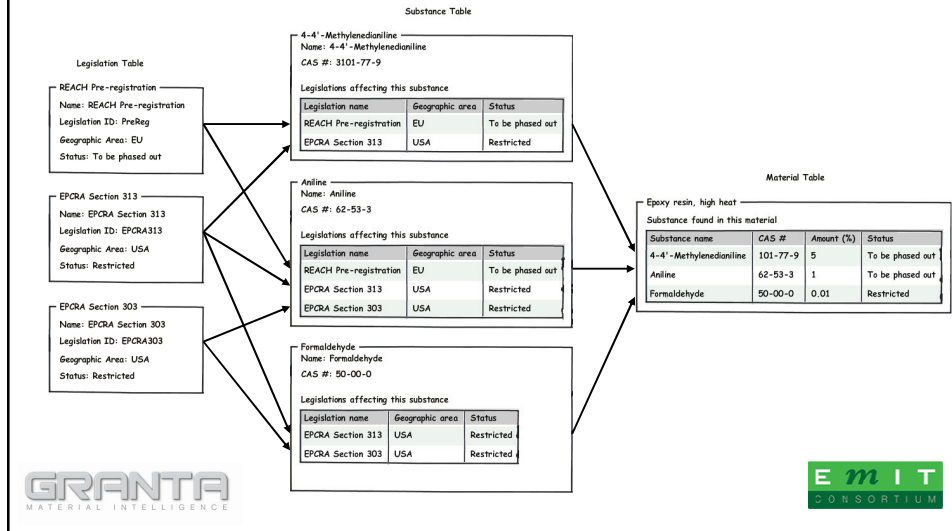
- **Many legislations have exemptions or specific conditions where a substance is banned**
 - e.g. REACH Annex XVII – Restrictions
 - ▶ E.g. monomer vinyl chloride – shall not be used as aerosol propellant for any use.
- **It is important to consult legislation text to identify these**
- **New column stating if exemptions to a legislation that bans a substance**

Legislation name	Legislation rating	Exemptions
REACH Annex XVII - Restrictions	Banned	Yes

Ratings

Ratings/Status are stored on the Legislation records

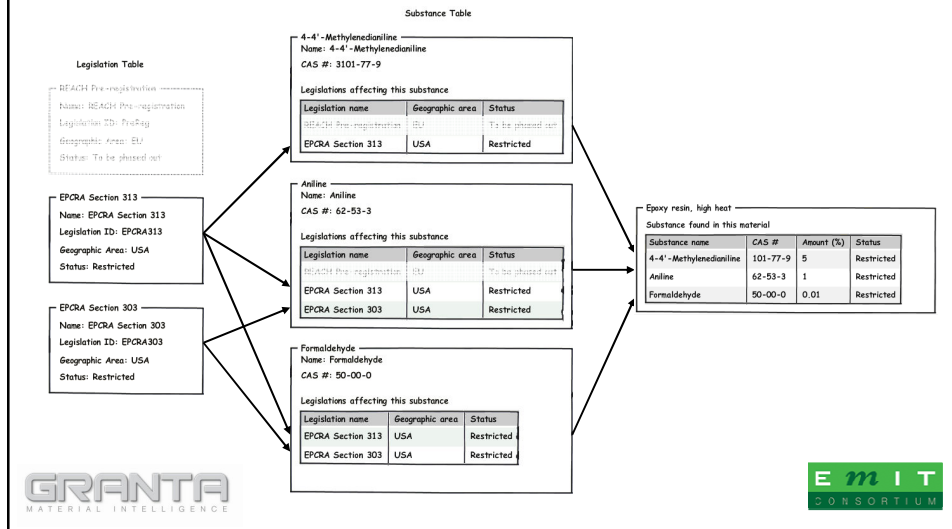
- Summarised in Substances and Materials/Bought-in Articles records



Ratings

Summaries are affected by subsets (i.e. in Legislation table)

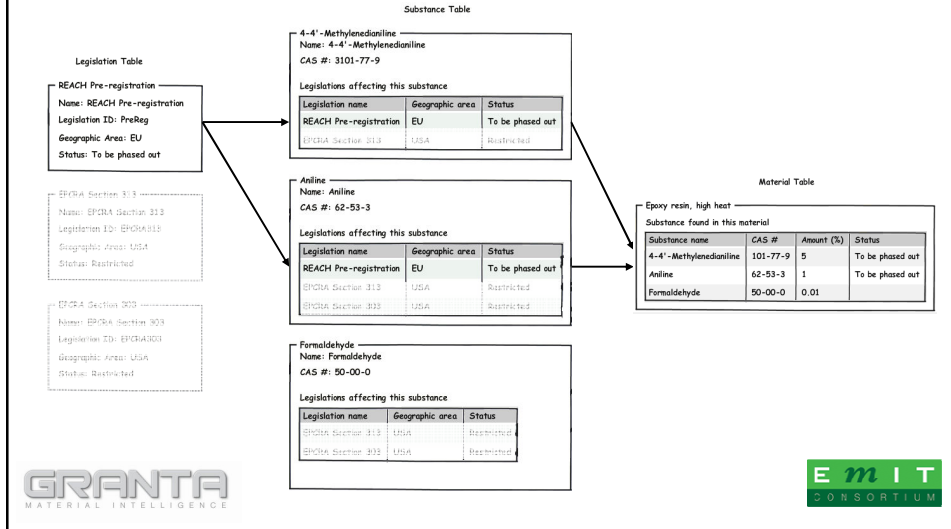
- US Legislations



Ratings

Summaries are affected by subsets (i.e. in Legislation table)

- EU Legislations



Ratings

All Legislations

PVC - Red (1)
Restricted Substances Database > Materials - in house (All materials)

Restricted substance information

Supplier name: Supplier A
Supplier item number: S5678

Restricted substances associated with this material

Material EH&S rating	Exemptions
Banned	Yes

Substance name	CAS#	Weight percent (%)	Substance rating	Exemptions	Legislation name	Legislation rating
Bis (2-ethylhexyl)phthalate (DEHP) [117-81-7]	117-81-7	5	Banned	Yes	REACH Annex XIV - Prioritisation REACH Annex XV - The Candidate List CERCLA hazardous substances EPCRA Section 313, Toxic Chemicals The EPA's List of Lists (LoL) US Air Toxics Regulations (NESHAP) NTP - Report on Carcinogens (RoC) REACH Pre-registration REACH (Registration, Evaluation and Authorisation of Chemicals) SAE ASS535 Declarable Substances REACH SIN List 1.0 (Substitute it now) EPCRA Section 304, Extremely Hazardous Substances RQ REACH Annex XVII - Restrictions REACH Annex XIV - Recommendation	Regulated Regulated - - - - Caution Regulated Regulated Caution Caution - Banned To be phased-out

Ratings

EU Legislations

PVC - Red (1)
Restricted Substances Database > Materials - in house (All materials)

Restricted substance information

Supplier name: Supplier A
Supplier item number: S5678

Restricted substances associated with this material

Material EH&S rating	Exemptions
Banned	Yes

Substance name	CAS#	Weight percent (%)	Substance rating	Exemptions	Legislation name	Legislation rating
Bis (2-ethylhexyl)phthalate (DEHP) [117-81-7]	117-81-7	5	Banned	Yes	REACH Annex XIV - Prioritisation REACH Annex XV - The Candidate List REACH Pre-registration REACH (Registration, Evaluation and Authorisation of Chemicals) REACH Annex XVII - Restrictions REACH Annex XIV - Recommendation	Regulated Regulated Regulated Regulated Banned To be phased-out



Ratings

US Legislations

PVC - Red (1)
Restricted Substances Database > Materials - in house (All materials)

Restricted substance information

Supplier name: Supplier A
Supplier item number: S5678

Restricted substances associated with this material

Material EH&S rating
Caution

Substance name	CAS#	Weight percent (%)	Substance rating	Legislation name	Legislation rating	Data source
Bis (2-ethylhexyl)phthalate (DEHP) [117-81-7]	117-81-7	5	Caution	CERCLA hazardous substances EPCRA Section 313, Toxic Chemicals US Air Toxics Regulations (NESHAP) NTP - Report on Carcinogens (ROC) EPCRA Section 304, Extremely Hazardous Substances RQ	- - Caution -	Legislations

Save To Excel (CSV) Copy To Clipboard



Case Study – Wire Harness

The following case study is designed to test three Use Cases of the RSDB:

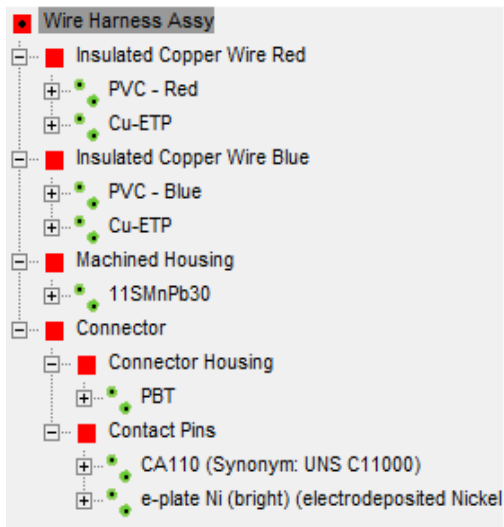
- As legal compliance tool for current production parts
- As a tool to help manage impacts of substances becoming reportable, restricted or banned
- As a design aid to help 'future proof' parts against forthcoming substance use restrictions

A wiring harness manufacturer wants to use the RSDB to:

- Test the legal compliance status of a part that is currently in production.
- Assess whether or not any design changes will be necessary during production lifecycle of the part, estimated to be a further five years.
- To test a 'next generation' part which will supersede the current production part at the end of its production lifecycle.



Wire Harness Bom Structure



Both the current production wiring harness, and the next generation wiring harnesses will be used in aerospace and automotive applications in US and EU markets.

Raw data on material and substance composition can be obtained from a variety of sources (e.g. spreadsheet). In this case, data has been gathered via IMDS, and then imported into the RSDB.



Legislations Update

3 monthly updates

- Add new legislations
- Update existing legislations

Review Legislation Priorities from last EMIT WebEx voting