The ECJ – Ruling on Articles

Questions and Proposals from the Automotive Industry

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Regulation, Vehicle Safety & Environment Team
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How many parts a vehicle contains?

- Depending on the vehicle type, there are between 4,000 & 9,000 different main components contained in a vehicle platform (without multiple entries for one specific part).

  - e.g. The vehicle platform of one OEM contains 8,400 components (=28,000 incl. common parts) from 1,800 suppliers!

  - Up to 75% of a car are pre-manufactured by supply chain

  Total number of components assembled to one vehicle: up to 28,000
  (example: 1 tire = 1 part reference number; number of tires per vehicle = 4)

Products from other industries may be even more complex!
(e.g. aerospace, engineering industry)
How many parts a vehicle contains?

• A car radio is counted as one main component...

Considering all parts contained in all components and sub-components, we come to many tens/hundreds of thousands of articles per vehicle!
Other interesting figures...

- How many different part numbers a vehicle manufacturer has in its warehouse? **up to 500,000**
- How many parts supplier (Tier 1) does a vehicle manufacturer have? **1,500 to 4,500**
- and how many Tier 2 suppliers the Tier 1 has in average? **500 to 1,500**
- How many Tier 1 suppliers are coming from outside Europe? **20% to 30%** (from European Vehicle Manufacturers) **50% to 80%** (from non-EU Vehicle Manufacturers)
- How many levels the supply chain in the Automotive Industry has? **3-7 levels**
The long way through a typical supply chain

1. Raw Material Manufacturer (Tier 4)
   - Rubber

2. Material Formulator (Tier 3)
   - Specified Rubber

3. First article manufacturer (Tier 2)
   - Sealing

4. Final article manufacturer (Tier 1)
   - Fuel Pump

5. Vehicle Manufacturer
   - Complete Car

Levels

1. Tier 1
2. Tier 2
3. Tier 3
4. Tier 4
5. Tier 5
6. Tier 6
7. Tier 7

1 (OEM)

- 1,500
  - 1.500
  - X 500
- 750,000
  - 750,000
  - X 100
- 75 Mio
  - 75 Mio
  - X 50
- 3,75 Bn
  - 3,75 Bn
  - X 50
- 187 Bn

Art 33.1

SDS

Vehicle

Material

Complete Car

First article

Fuel Pump

Specified Rubber

Rubber

Vehicle Manufacturer

Material Formulator

Tier 1

Tier 2

Tier 3

Tier 4

Tier 5

Tier 6

Tier 7

Levels

E U

flags

1 (OEM)
It is almost impossible to fully comply with REACH Art 33, even with:

- an experience of >16 years in the collection of substance information throughout the very complex supply chain.
- well developed tools and processes (IMDS, GADSL, ...)

100% data completeness = Art 33 compliance is almost impossible?
**ECJ Ruling – Obligations depending on your role**

<table>
<thead>
<tr>
<th>EEA In House Production of articles (made of materials)</th>
<th>Purchased articles from EEA Supplier</th>
<th>Articles from non EEA Production (purchased or in-house)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information source</td>
<td>Information received from EEA Article suppliers</td>
<td>Information received from non EEA Article suppliers</td>
</tr>
<tr>
<td>Duty on information provision</td>
<td>Suppliers have • the legal duty to inform via SDS (Art 31, 32) and • contractual duty via IMDS</td>
<td>Suppliers have • no legal duty • only the contractual duty to inform via IMDS</td>
</tr>
<tr>
<td>Notification* (Art 7.2)</td>
<td>Basis for the 1tpa threshold calculation: • Each article that is self-produced</td>
<td>No Notification required</td>
</tr>
<tr>
<td>Communication (Art 33)</td>
<td>Duty to communicate further down the chain of • each article that is self-produce and place on the market</td>
<td>Duty to communicate further down the chain of • each article contained in the purchased assembly that is placed on the market and that fulfills the criteria</td>
</tr>
</tbody>
</table>

* **Notification is required if**
  - the substance is present in those articles in quantities totalling over 1 tpa (=tonne per producer or importer (each individual legal entity) per year);
  - the substance is present in those articles above a concentration of 0,1 % weight by weight (w/w).
  - Exposure to humans or the environment during normal or reasonably foreseeable conditions of use including disposal cannot be excluded
  - The Candidate List Substance has **NOT** been registered for your uses

⇒ **WORK DONE BY AUTOMOTIVE INDUSTRY**: Industry fact sheets to help the AI company to fulfill their notification obligations. Check the Notification Fact Sheets under [http://www.acea.be/publications/article/reach-automotive-industry-factsheets](http://www.acea.be/publications/article/reach-automotive-industry-factsheets) to evaluate your substance specific duties
How to be best prepared to avoid any negative surprise?
Art 7.2 – Questions on Notifications

- Important to consider: To avoid duplicated notifications, parts from EU suppliers need not to be notified again by End Product Manufacturers (e.g. Vehicle Manufacturers).
  - But what means in this context „duty of notification concerns only those articles which they make or assemble themselves“ (see Justification 55, 56, 61)?
  - Isn’t that implying a double notification because the assemblies already have been notified (if supplied by EU suppliers)?

- How do I know that the EU suppliers really have notified?
  - Do I have the obligation to check this and in case how to do that especially in complex supply chains?

- How about re-imports
  - How do I know whether a sub-component contained in an imported article has been produced in Europe and thus already has been notified? How to avoid the related double notification? Do I have obligations?

- In order to know whether the 1 tpa threshold is exceeded, an End-User (e.g. Vehicle Manufacturer) has to know and calculate the amount of SVHCs contained in their sub-assemblies or end products
  - Acc. to the Judgement, only the fact that the 0.1% threshold is exceeded has to be communicated but not the real amount of the SVHC.
  - How to guarantee compliance?
Impact on Communication
Calculation – Where to start and where to stop?

- The more complex a product is, the more difficult it is to find the right balance between data availability and data usability.
- It is therefore required to define a workable solution...
- **Question:** Where to stop defining an article

 Does anybody need to know that the capacitor welded on the PCB protected by its housing, screwed on the dashboard, behind the Instrument Panel contains 0.1% of a SVHC?
Impact on Automotive Industry

- Compared to other sectors, the Automotive Industry has the advantage that the necessary tools and processes to collect all relevant information is existing since many years (IMDS, GADSL, ...)
- In case the following conditions are met the ECJ Ruling can be implemented and fulfilled
  - General rule: Calculation on lowest reasonable level, communication on highest level
  - Only what has been communicated / what is available can be considered in the Art 7.2 calculations and Art. 33 communications
    - Note: Due diligence approach is always to be applied
  - Depending on the final interpretation, there is sufficient time granted to slightly modify the tools and processes, to train the supply chain and to collect new data (~1–2 years)

NOTE:

In addition to the above mentioned conditions, other industries / companies not already using working CIP systems will need to benefit from a workable interpretation of the “reasonable level” that simplifies the requirements on data collection and calculation.
Options on calculation simplifications

Several options to define the “reasonable breakdown” of a complex article and to “simplify” the calculation

Stop the calculation...

1. On the level on the smallest part (When chemistry becomes physics)
2. On the level of the assembly which is not further manually separable (BAuA approach)
3. On the basis of the weight of the assembly: If $m_{assembly} >$ limit value
4. On the basis of the weight of the SVHC in the assembly: If $m_{SVHC} >$ limit value
5. On the basis of parts for which exposure of a SVHC can be excluded
6. On the level of the xth-level component, e.g. Always at the 3rd? sub assembly
7. On the basis of the smallest part (see #1) as identified to us but for electronics it stops at the PCB-level. PCB to be considered as homogenous material (PCB: Printed Circuit Board)
8. On a basis of $m_{SVHC} >$ limit value + $m_{assembly} >$ limit value
9. ...?

Whatever Option is finally chosen, it only will work if:

- it is unanimously accepted by all Competent Authorities
- it is not compromising the already existing processes and thus data qualities of existing CIP systems
- the effort of data collection and communication is in proportion to the generated benefits and is not leading to disproportional burden for industry
1. Smallest part

- **Strictest interpretation:**
  On the level on the smallest part (when chemistry becomes physics)

<table>
<thead>
<tr>
<th>Positive</th>
<th>Negative</th>
</tr>
</thead>
</table>
| + Provides a complete overview  
+ Solid rule: Easy understandable: No uncertainty | – Rather theoretical approach  
– Large calculation efforts required or impossible at all  
– Overload of recipient with (non-relevant) information  
– Tiny details not available in any CIP system (legacy data is useless => Large re-collections required)  
– Difficult for companies / Industries with no CiP System |
2. Dismantling

• On the basis of the assembly which is not further manually separable (BAuA approach)

<table>
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<td>+ Can theoretically solve the challenge of tiny electronics assembly reporting’s (Resistors, Capacitors, …)</td>
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<td>- Information is not automatically retrievable from any CiP System (e.g. IMDS, Chemsherpa, CAMDS, BomCheck…)</td>
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<td>- Manual work is necessary which is impossible for large data of very complex articles (Vehicles, PCs, Planes…)</td>
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<tr>
<td>- Difficult for companies / Industries with no CiP System</td>
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<tr>
<td>- Soft Rule: May cause many unnecessary discussions / uncertainty within supply chain because of different interpretations on “separable”</td>
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=> Bad data quality
3. Assembly Weight

• On the basis of the weight of the assembly: Reporting until $m_{\text{assembly}}>\text{limit value}$

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<tr>
<td>+ Information usually automatically retrievable from CiP System</td>
<td>- How to define the best weight threshold?</td>
</tr>
<tr>
<td>+ Implementation not too difficult</td>
<td>(There are large and tiny PCBs)</td>
</tr>
<tr>
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4. SVHC Weight

- On the basis of the weight of the SVHC in the assembly: If $m_{SVHC} >$ limit value

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<td>- Definition of the weight threshold also difficult but easier than under 3.</td>
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</table>
5. Exposure

- On the basis of parts for which exposure of a SVHC can't be excluded

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<tr>
<td>+ Provides most relevant information / Limits scope to only exposure relevant (=critical?) sub-components</td>
<td>- Information not automatically retrievable from any CIP System (e.g. IMDS, Chemsherpa, CAMDS, BomCheck...)</td>
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<td>+ Probably best solution for companies / sectors without a CIP System</td>
<td>- Always risk of incompleteness / incompliance</td>
</tr>
<tr>
<td></td>
<td>- Soft Rule: May cause many unnecessary discussions / uncertainty within supply chain because of different interpretations on exposure</td>
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6. Levels

On the basis of the xth–level component, e.g. always at the 3rd? sub assembly

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| + Solid rule: Easy understandable: No uncertainty | – How to define the best level?  
– Difficult for companies / Industries with no CiP System  
– Same as Option 1* |

* Art. 33 Communications usually start at the beginning of the supply chain (Tier X Supplier) who manufactures the “smallest” component. What level would apply to him?
7. Simplification for Electronics

- On the basis of the smallest part (see #1) as identified to us but for electronics it stops at the Printed Circuit Board (PCB) level.
- PCB to be considered a homogenous material

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<td>+ Helps to simplify the calculation</td>
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<td>+ Overload with irrelevant information is reduced</td>
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<td>+ Likely to be accepted also under other EU legislation</td>
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<tr>
<td>- Difficult for companies / Industries with no CiP System but better than under #1</td>
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8. Combination of several parameters

- On a basis of a combination of SVHC weight and the article weight:
  $m_{SVHC} > \text{limit value} + m_{\text{assembly}} > \text{limit value}$

**Positive**

+ Information usually automatically retrievable from CiP System
+ Implementation not too difficult
+ With combination of the two parameters e.g. large parts with irrelevant amount of SVHC (or very tiny parts containing SVHC) might be possible to skip
+ Solid rule: Easy understandable; No uncertainty

**Negative**

- How to define the best thresholds?
- Impossible for companies / Industries with no CiP System
# Summary of the options

<table>
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<tr>
<th>#</th>
<th>Options</th>
<th>+</th>
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<td>1</td>
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<td>On the basis of the assembly which is not further manually separable</td>
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<tr>
<td>3</td>
<td>On the basis of the weight of the assembly: If ( m_{\text{assembly}} &gt; \text{limit value} )</td>
<td>+ Information usually automatically retrievable from CIP System</td>
<td>– How to define the best weight threshold? (There are large and tiny PCBs)</td>
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<tr>
<td>8</td>
<td>On a basis of ( m_{\text{SVHC}} &gt; \text{limit value} + m_{\text{assembly}} &gt; \text{limit value} )</td>
<td>+ Information usually automatically retrievable from CIP System</td>
<td>– How to define thresholds?</td>
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Art. 33 – Related Questions

• What is the correct and best way of communicating the results of the calculations?
  – Can we do the calculations on the lowest article level (e.g. Resistor) and then the communication on the level of the end product, placed on the market (e.g. the Hifi-system or the car)?

• Are there other possible approaches that can help to
  – satisfy the ECJ Ruling?
  – fulfill the basic idea of REACH Art 33 & 7.2?
  – avoid unnecessary burden or information overflow?

• Is the interpretation of “smallest article” as promoted by some of the dissenting MS as an article that “cannot be further dismantled” (e.g. PCB) a reasonable approach?

• How much time is needed by the industry to get ready?

• What is a reasonable breakdown of a complex article into its sub-components?
General Questions

The ECJ Judgement is not only triggering discussions about the “How and What to calculate and communicate”

It is as much generating other questions going beyond that, e.g.:

• Is a car still an article or is it an assembly which is not anymore an article?

• Is this judgement also having an indirect impact on other REACH pieces such as the Annex XVII Restrictions?

• As the ruling now covers substance information which does not exist, especially not in complex supply chains, the „Peanut principle“ my be used. Is this approach which already is in use under other consumer communication requirements such as California Prop 65 allowed? „This part may contain…..(every relevant Candidate List Substance)“
Conclusion & Next steps

The most important question (for all of us) is WHEN and HOW to get prepared for the related enforcements of the ECJ Judgement?

- **Timeline**
  - 04/14: ECJ hearing started
  - 09/15: Publication of ECJ Judgement
  - 10/15: Start of SiA Guidance Revision
  - 12/15: Publication of SiA Guidance (1st Step: Correction)
  - 02/16: Establish PEG for complete revision
  - 04/16: PEG works out new SiA Guidance
  - ~01/17: Publication of new SiA Guidance

- In principle, the judgement is valid immediately (09/15)
- Neither Industry nor Authorities are able to fully understand / interprete it
- But it is well understood by the Authorities that an enforcement is useless unless there is a common understanding achieved
- The ECHA Forum (for enforcement) has announced that an enforcement is not likely to happen before the new guidance is finalized (~1st half of 2017)
  - No legal binding rule (Member States theoretically can enforce earlier)
- Decision to act is up to each individual company but
  - REACH TF is recommending:
    - Not to change our current approach unless there is a clear direction available
    - However, if a MS starts earlier with enforcements and if our current approach is questioned we may have to rethink the recommendation