



ASD detailed response to the call for input on the task of ECHA to develop a database on articles containing Candidate List substances under the Waste Framework Directive

Executive Summary

The ECHA proposals for a database for substances in articles for Waste operators in support of the circular economy are disproportionate, overly complex and cannot work.

The proposals fail to account for how physical products are designed, configured, manufactured and assembled. **The requirements suggested by ECHA would require wholesale change to a wide range of IT systems in manufacturing companies in all industries worldwide**, including product lifecycle management (PLM) systems, enterprise resource planning (ERP) and stock management systems, together with inconceivable levels of cost for industry wide changes to data management, organisation, and integration, system process change and training throughout industry supply chains. The cost of these proposals is likely to be of the order of 100's of billions of Euros.

Despite the complexity of the system conceived by ECHA which is far beyond the rest of REACH, the provisions to report detailed information and a new system of unique article identifiers which drive the complexity are interpreted by ECHA and not based in law. This ignores the existing state of art in configuration standards and the real-world management of article supply chains, including issues relating to as-designed, as-built, as-maintained configurations, and the management of multiple sourced standard parts supplies. The result will be the practical confusion and impossibility to co-operate for article manufacturers, importers, distributors and assemblers world-wide.

This level of system change to satisfy the proposal is not therefore manageable, and as a result it would create perceived non-compliance by article manufacturers and assemblers, thereby frustrating enforcement rather than aiding it.

The detailed data demanded by ECHA could not economically be used by waste operators to help the circular economy without making recycled materials permanently uncompetitive.

In summary, the proposal repeats the previous failure to undertake impact assessments prior to the agreement of the Waste Framework Directive. It has little benefit to Waste Operators and will be impossible to effectively implement.

ECHA must withdraw these proposals based on this “article-centric approach”, and seek to introduce a more manageable and much simpler system based on aggregated information at a product assembly level. The required information for the notification to the new ECHA database shall be limited to what is specified under Article 33(1) and relevant for waste treatment operators, taking into account the complexity of the reported object.

Given that an impact assessment on the establishment of such a database was not done ahead of the adoption of the revised Waste Framework Directive (WFD), the Commission should take urgent action to conduct an independent assessment by suitable downstream article manufacturing industry experts to assess the cross-sector issues of managing the processes proposed by the WFD, before an implementation strategy is initiated.

Detailed consequences of ECHA proposals

Please be advised that the following related to the manufacturing of articles and complex objects in general and are not in any way specific to aviation, space or defence industries.

Part Numbering, Supply Chain Ordering Stock Management

ECHA propose to introduce the concept of a new “unique article identifier”, which is created in REACH IT systems by the article manufacturer or importer, and reported down the supply chain for all assemblies and kits containing the article.

Component articles already have part numbers, which serve the need of the product designs, supply chains and customer bases of the manufacturing industry. These part numbers allow for certain flexibilities which aid the cost-effective management of product design, use, and supply chain management of those products, such as:

- 1) Common part numbers used by multiply-sourced components.

Standard parts such as fasteners may be produced in compliance with an industry standard by many different suppliers and used interchangeably. Often these would be loaded into containers for use in production lines, with parts from different sources mixed together.

A part may be sourced from one supplier, and then transferred to another supplier as a result of quality or cost competitiveness concerns. A part may be sourced from multiple suppliers to provide redundancy and flexibility of supply. All such multiply-sourced parts are considered to be equivalent, despite different source of manufacture.

- 2) Industry standard or common parts used in multiple complex objects

Many standard or common parts such as bolts, washers, ‘O Rings’ and electronic components are sold via distributors into many different industries. The supplier of such parts (whether themselves complex objects or component articles) can have no understanding of the use or end of life context of the final complex objects they support.

- 3) Minor design change flexibility

Where a part number changes, there is a cascade of consequences on stock management (new vs old), assembly build instructions, maintenance instructions, repair manuals. It is therefore standard industry practice to keep the same part number for minor modifications to dimensions, inspection requirements, materials or coatings where it is determined that there is no detrimental impact on assembly, appearance, system function, reliability, service life. In such cases both pre- and post-modification can be used interchangeably.

- 4) Use of alternative materials

In order to manage obsolescence risk or dependence on upstream formulators, parts may specify different alternative/equivalent materials or coatings, under the same part number.

The ECHA propose a unique component article identifier raised by a component producer (manufacturer or importer), identifying the specific material used to be communicated for any complex object containing

that component. This ignores all of the above, creating a far more data intensive and inflexible system for managing component article and complex object manufacturing, assembly, supply and in-service support than is currently true today. There is an implied obligation to get a new unique ID for a complex assembly every time there is a minor change to the source of supply or the material used for a component article anywhere in the assembly, no matter how small – even if that assembly is as complex as a ship or aeroplane. The cost of such ongoing data maintenance and the cooperation needed across supply chains to achieve this is inconceivable. The consequences of introducing ECHA’s proposals would greatly damage the agility of industry to adapt to market needs, thereby impacting the EU competitiveness and long term economic output, aside from costs to implement in IT, data, processes and training.

Configuration Management in Manufactured Products

The design relationship between a complex object and the parts contained within it is managed through the Bill of Material (BoM). There are many variants of the Bill of Material which may include:

- 1) The Engineering BoM – a structured tree of the designed structure of the product.
- 2) The Assembly BoM – a structured tree of how the product is assembled.
- 3) The Logistic BoM – a structure covering how the product parts are ordered, and scheduled to factories and external suppliers – including how parts may be organised into kits.

Many of the parts on a Bill of Material, will be complex assemblies in their own right, such as pumps, sensors, actuators. A supplier (manufacturer/assembler) of such parts will have their own configuration management system, bills of materials and associated component part and factory scheduling system.

The “As-built”¹ configuration may vary from the base design, or may need to record additional part level attribute data.

- Customer options may cause variations to an otherwise standardised product, such options are built into a “could-build” configuration bill of material.
- Some parts may be “serialised”, where the exact serial number has to be tracked in the production and use of the end product. Such serial number data is not built into the designed bill of material, but may be recorded by the product assembler (or sub-assembly supplier) at the point of build. Such exceptional tracking is limited to a small minority of parts.

Finally, for recycling and end of life management the most important viewpoint is the “as-maintained”² configuration. This may in very few sectors identify what parts are built into an assembly at any point in time. In practice this is exceedingly rare; few industries regulate repair and maintenance activities at that level, yet the presence of third party spare parts and environmental contaminants can have a large impact on recycled material contamination.

¹ base design plus customer options, or alternative parts because normal ones not available

² as new plus repairs and spares replacement

Impact on Design and Supply Chain IT Systems

The ECHA proposal requires unique identifiers which are unique to the part design and manufacturer to be managed so that they can be communicated with the product that contains them. This therefore:

- Adds additional component / part attribute data which have to be managed through bills of material, in addition to existing part number.
- Imposes constraints of sources of supply and which materials must be used so that the relevant unique component article ID and mixture identity is included the complex object data provided.
- Creates complexity in managing configuration and shelf stock, so that otherwise minor material design changes always result in a new unique component ID, and a new complex object.

This will result in the need to change existing IT systems – such as:

- Product Lifecycle Management, to relate the component article unique identifiers to the complex object containing the component article, and to further relate the component article and complex object identifiers received from a sub-assembly supplier to a yet higher-level assembly unique identifier and so on.
- Enterprise Resource Management systems to add additional attributes for unique identifiers, so that the unique source is managed and tracked in ordering, stock management, kitting, assembly and shipment.

All these systems will have to be updated in every company in the supply chain, of every industry, either because SVHCs are in current products, or because the Candidate list will grow and affect other commodities, product and industries in the future.

Existing data will need to be transferred into upgraded systems, with addition burdens to transition data from sources not in those systems today, curating, checking correcting and standardising information formats for billions of current component parts, sub-assemblies and products. Further, new processes will need to be introduced and supported with training and quality control systems to maintain additional data requirements and ensure such data requirements are in place for any new component definitions.

We note that the car industry estimate a cost of €10 bn to date for their industry sector for their IMDS, without the level of data management required by the ECHA proposal. The combination of data handling, data checking, IT upgrades, and training required by the ECHA proposal must therefore be estimated as at least €100 billion or more across all industry sectors, given that the changes would be required by all industry, and are far more impactful on industry IT and working practices than what has gone before. This economic impact does not include the ongoing costs of data management, quality control, and reduced flexibility of supply sources.

Impact on Enforcement

ECHA suppose that such a system will help clarify expectations on how Article 33 etc. must be complied with, despite going well beyond the legal requirements. It is apparent from the above that the proposal is not practical to implement. Enforcement Authorities would be in the difficult position of having high expectations, which companies cannot comply with, for which there is no explicit requirement for in the

law. Unless the requirement for data is based on a clear legal requirement, we expect major resistance from suppliers to providing such data.

This undermines enforcement and does not help it.

It would be better if ECHA restricted the scope of the database to the legal objective of reporting safe use information, as a minimum the name of the substance in supplied products (whether complex objects or component article) at an aggregated level, based on information available to the supplier that the substance is present >0.1% in a component article. Specific sub-component article identifications, mixture identification, location, substance concentration, are **not** required unless actions to ensure safe use requires such specific data.

Benefits on Waste Processing

ASD notes the [position](#) of the European Recycling Industries Confederation. In particular, we note the valid point that:

“Recycling can only be a viable activity if large quantities are treated in a short time: most end-of life articles are treated by categories (vehicles, refrigerators, TV screens, etc.) and some of them as a bulk (e.g. small household appliances). There is no specific treatment process for each brand or model of appliances, which are treated as a bulk.”

Since the intent of the database is to support the Circular Economy, it makes no sense to require data structures which the waste industry cannot practically use, since using detailed data can only make recycled materials less competitive. The vast majority of the proposed ECHA data system therefore adds significant costs but no value.

Aggregated data at complex product assembly level should be sufficient to support the needs to Waste processors, which could then be summarised by product category. This is sufficient to help waste processors identify substances that could be present, and which would allow targeted testing of recycled materials.

Confidentiality Concerns

In the same way that formulators are not required to disclose ingredients in their products, manufacturers of complex objects also have reasonable confidentiality concerns.

Public disclosure of elements of internal design and component part selection is a sensitive issue for many manufacturers of complex objects.

A specific issue for Aerospace and Defence equipment manufacturers:

Aerospace and Defence equipment manufacturers have to comply with technology Export Controls (both under EU legal requirements and the impact of other jurisdictions such as the USA with which we trade). Also, many sensitive military technologies are classified by governments as “secret” or similar, and providing any level of internal detail can give rise to issue with public disclosure of the material technologies in use. In both cases, reporting hazardous materials at an aggregated level is of much lower sensitivity than providing internal bill of material detail or other design details within a complex object.

[Signature on file], Jan Pie, ASD Secretary General, 9 October 2018