A year ago, we reported on how a group of major companies in the aerospace sector had come together to try and draw up common tools to help the industry and its suppliers meet regulatory requirements on chemicals and other environmental issues. Working through the International Aerospace Environment Group (IAEG), the companies embarked on a number of projects, including two relevant to the chemicals management agenda: the development of a “voluntary consensus” standard for the reporting of chemical content in materials and products; and the creation of a methodology to identify and manage priority chemicals, including the creation of a declarable substance list for the global aerospace sector (GBB March 2013).

Within the next month or so, the IAEG hopes to launch a pilot project with some 30 suppliers, covering tiers one, two and three and located mainly in Europe and the US, to try out the declarable substance list and the common electronic data format for reporting and make sure they are clear to the suppliers. “The worst thing you can do is create a standard that is not well understood by suppliers,” says Christer Hellstrand, IAEG chairman and EHS director at The Boeing Company. “We need to make sure we do things that make sense for the supply chain and are easy to implement as well.”

The declarable substance list is divided into three sections: tier one is a list of restricted substances; tier two contains substances that are not restricted, but are declarable; and tier three (by far the largest) lists substances anticipated to be banned or of concern in the future. In total, the list contains between 500 and 1,000 entries, says Mr Hellstrand, mainly drawn from chemical regulations issued in Europe and the US, but also from some in Canada, China and Brazil.

Interestingly, the IAEG chose not to build a data repository like the automotive industry’s IMDS. “Judging by our discussions with some of the participants in the automotive project, it took them a very long time to agree on an IT platform,” says Mr Hellstrand, “and there’s always the risk that the platform you set up will become obsolete. I don’t think there’s a huge appetite to create such a vast IT infrastructure on behalf of the industry. Instead, we decided we needed to agree on a standard format, and then a declarable substance list, and then allow each company to use their own vehicle to report. For example, if you’re a supplier of fasteners, and you have ten part numbers, you will complete this information according to the standard reporting format, and then see what substances you have, based on the list. Suppliers can use anything from an excel spreadsheet to a supplier’s existing system for data exchange.”

The working group “has done a fantastic job”, says Mr Hellstrand. “They are solving a problem that we know is very important for the industry to solve. You can imagine what it would be like if we didn’t have a common list or data exchange format and every company had a slightly different list and a slightly different format to gather the same type of information.”

The group is also finalising a list of chemicals that will be a priority for substitution. Once it’s finalised, the list will be available to IAEG members, but it has not yet been decided if it will be made more widely available.

Because there are many IP and anti-competitiveness issues surrounding the search for alternatives, the group has produced a methodology for defining the processes involving priority chemicals. For each process, the methodology will be used to produce a set of draft common technical performance requirements (TPRs), which can be used to find industry recommended solutions. The hope is that TPRs “will drive a lot of efficiency throughout the supply chain”, says Mr Hellstrand.

The working group has produced a draft TPR for the chromic acid anodising process. The requirements are “of enormous importance to the industry,” says Mr Hellstrand, because the process is used to protect aluminium – a metal widely used in the aerospace sector – from corrosion, and because a number of chromium-based chemicals, including chromic acid and chromium trioxide, are subject to the REACH authorisation process and could disappear from the market. Another reason why chromic acid anodising was chosen for the first TPR is that it is a mature process, with few remaining patents, and with a wealth of information in the public domain.

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