

## **How to use The Declarable Substances List and the Declarable Substances Standard**

**This guide is intended to provide an explanation of how to use the declarable substances list and standard to best advantage within your business, as an important tool for managing REACH.**

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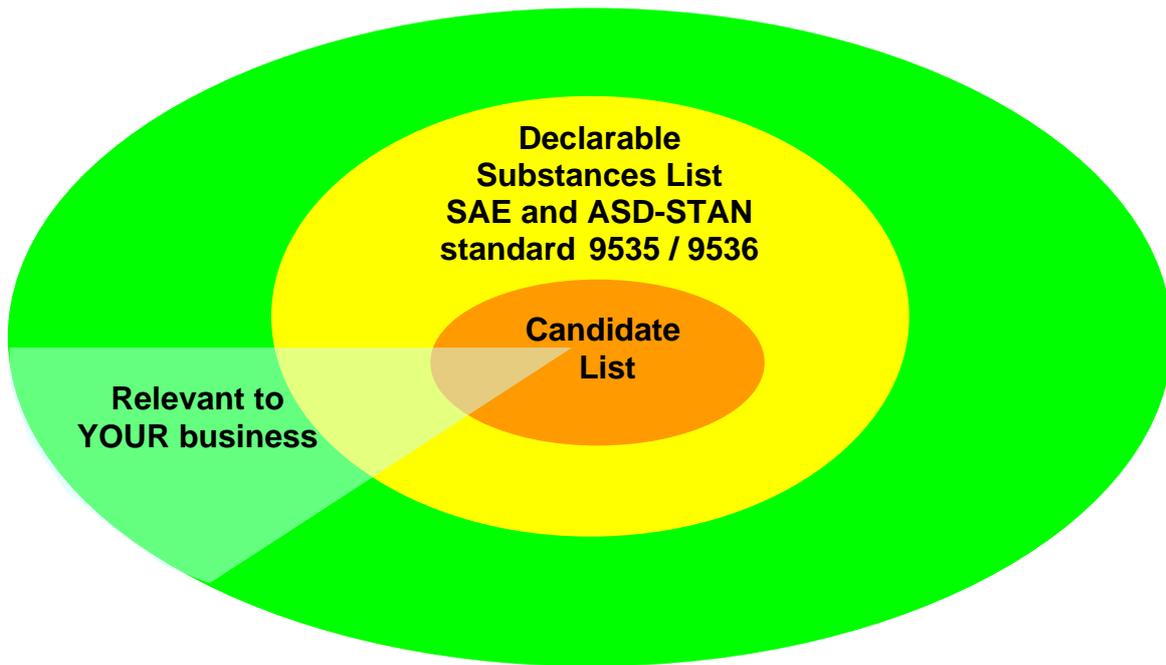
### **1. Why do we need the Declarable Substances List and Standard?**

The candidate list of substances, which is the legal list against which substances **MUST** be declared, should always be a subset of the latest issue of the declarable substances list. The candidate list will evolve and grow regularly. The declarable substances list will contain far more substances and will give far more warning of substances at risk, and will change less often.

It is hoped that the use of the declarable substance standard and form will result in businesses being able to manage their risks effectively.

The Declarable Substances List enables companies to identify the hazardous substances ('substances of very high concern') that could be strategically important to them, so that they can act upon the information to manage their business risks.

Comparing the Declarable Substances list to compositional information of substances on the own (including impurities), in preparations and within articles is very important for REACH.



**Figure 1: The declarable substances list helps you identify substances that could pose a business risk that are relevant to your business.**

Compositional information is needed for compliance with the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Regulations for three main reasons.

1. For companies importing preparations into the EU

The Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Regulations requires manufacturers and importers of substances to register the substances they produce or import in quantities of more than 1 tonne.

As an importer, it is necessary to know the compositional breakdown of preparations in order to know which substances need to be registered, within the preparation, if there is a chance of one of the constituent substances exceeding 1 tonne of imported substance per annum.

2. For companies using substances or preparations that may be SVHCs

During the 'Evaluation' step of REACH, there will be substances that are identified as being very hazardous to man or the environment. These will be designated 'substances of very high concern' (SVHCs). These substances will be added onto the 'Candidate List', which will be published on the European Chemicals Agency (ECHA) Website.

Candidate List substances will progressively be phased out, by a combination of fiscal measures and regulatory controls and prohibitions. The substances on the candidate list, at some point, will no longer be economically viable to manufacture. Therefore if the SVHC substance is used by a company, either on its own, in a preparation or within an article it manufactures or incorporates, then the business has a risk it needs to identify and manage.

3. For producers of articles, anywhere in the world with EU markets

Producers of Articles are required to inform customers (and in some cases, the new European Chemicals Agency) of all 'substances of very high concern' within the 'articles' they sell in the EU. Whole aircraft, engines, gearboxes, component parts (new or repaired) and forgings are all articles.

Manufacturers of subsidiary assemblies need to be able to provide the information to the next tier in the supply chain, so that the information required by REACH is available to any company selling the finished article into the EU.

## **2. Using the Declarable Substances List to manage substances and preparations used as process consumables or incorporated into products.**

The Declarable Substances List is a list of around 3500 substances which are part of the excel spreadsheet in the declarable substances form. It can be found on the worksheet called "ARP 9536 Detailed List", as part of the Declarable Substances Form.

This list of substances is the best estimate, at the point of issue, of all the substances that are known to meet criteria that could lead them to being considered as 'substances of very high concern'. These are a compilation of all the substances that have been identified as being (as of March 2008, for issue 1 of the Standard)...

- CMRs category 1& 2 (annex 1 of directive 67-548 as amended)
- Substances defined as vPvB or PBT (OSPAR listed substances)
- Ozone Depleting Substances as defined by Montreal Protocol
- Persistent Organic Pollutants as defined by the Stockholm Convention, etc.
- Substances listed within Annex XVII (restricted substances)

Some substances are part of a 'Chemical Family' – such as the family of hexavalent chrome substances, or the family of nickel compounds. These families are shown in the document. This enables the user to group the substances for the purpose of searching and analysis if required.

The blue boxes are used if you wish to use the declarable substances form in contracts (described later).

**Table 1: The table below shows an extract of the declarable substances list on the declarable substances form.**

8. CAS No.	9. EU Index Number	10. Chemical Name	10a. Chemical Family	11. Weight Percent (For ranges, report typical (mode) value, NOT the range)	12. Will this substance be pre-registered by you between 1 June and 20 Nov 2008? If yes, check the box corresponding to those substances being declared.
14018-95-2	024-007-00-3	Chromic acid, zinc salt (1:1)			<input type="checkbox"/>
49663-84-5	024-007-00-3	Zinc chromate hydroxide (Zn5(CrO4)(OH)8)			<input type="checkbox"/>
13530-65-9	024-007-00-3	Chromic acid, zinc salt (1:1)			<input type="checkbox"/>
11103-86-9	024-007-00-3	Chromate(1-), hydroxyoctaoxidizincatedi-, potassium			<input type="checkbox"/>
NOCAS0071	024-007-00-3	zinc chromates including zinc potassium chromate			<input type="checkbox"/>
98072-80-1	611-030-00-4	Benzoic acid, 2-amino-, diazotized, coupled with 4-amino-5-hydroxy-2,7-naphthalenedisulfonic acid, diazotized 3,3'-dimethyl[1,1'-biphenyl]-4,4'-diamine and 5,5'-[oxybis[(5-hydroxy-3,1-phenylene)oxy]]bis[1,3-benzenediol], sodium salt			<input type="checkbox"/>
98072-79-8	611-030-00-4	Benzoic acid, 2-amino-, diazotized, coupled with 4-amino-5-hydroxy-2,7-naphthalenedisulfonic acid, diazotized 3,3'-dimethyl[1,1'-biphenyl]-4,4'-diamine and 5,5'-[(5-hydroxy-1,3-phenylene)bis(oxy)]bis[1,3-benzenediol], sodium salt			<input type="checkbox"/>
98072-78-7	611-030-00-4	Benzoic acid, 2-amino-, diazotized, coupled with 4-amino-5-hydroxy-2,7-naphthalenedisulfonic acid, diazotized 3,3'-dimethyl[1,1'-biphenyl]-4,4'-diamine and 5,5'-[(5-hydroxy-1,3-phenylene)bis(oxy)]bis[1,3-benzenediol], sodium salt			<input type="checkbox"/>
80365-36-2		Undecane, 1,1,5-trichloro			<input type="checkbox"/>
69537-72-0		Heptane, 2,2,4,6,6-pentachloro-4-(2,2-dichloropropyl)-			<input type="checkbox"/>
102880-00-2		Decane, 1,5,6,10-tetrachloro-			<input type="checkbox"/>
108140-19-8		Decane, 1,3,3,5-tetrachloro-			<input type="checkbox"/>
109749-69-1		Heptane, 1,1,1,6-tetrachloro-3,3,6-trimethyl-			<input type="checkbox"/>

### **3. Using the declarable substances list to minimise business risk from substances of very high concern in materials used by your company.**

The best way of using this list right now, is as follows:

1. Ensure the system you use to store materials safety data sheets is up to date, and that you have a formal process for ensuring all MSDS for all new products are added into the system when they first arrive on site, and that they are kept up to date (this can be a paper based system with spreadsheet control, or a database, or there are many service providers who will help with the storing and update process).
2. Wherever the MSDS does not list the substances by constituent CAS no., to require the supplier to provide the CAS numbers of the substances listed.
3. Go through the compositional information for each MSDS to see whether any of the CAS nos. of the substances listed in the compositional information are on the declarable substances list.
4. Identify all the substances that are incorporated into the product, either as a preparation such as an adhesive, or as an article such as an o-ring, a rope seal, or specified within a structural component. For metallic materials this is straightforward. For non-metallic materials the information may be proprietary and difficult to obtain without testing the material to determine its composition.
5. Go through the compositional information for each material specification to see whether any of the CAS no.s of the substances listed in the compositional information are on the declarable substances list.
6. For each substance in an MSDS or in a material specification that DOES appear on the declarable substances list, assess the level of risk to the business if the substance or preparation is no longer available, and then produce an appropriate action plan to deal with this.

It is recognised that suppliers may not be willing to provide compositional information if they consider it to be proprietary. In this case, you can choose to use the rest of the Declarable Substances Form, and to apply the Standards (see below).

### **4. Using the declarable substances standard (SAE International AS9535 or ASD-STAN TR9535)**

The purpose of the Substance Declaration Standard (SAE International AS9535 or ASD-STAN TR9535) - provides for a consistent approach to collection of chemicals throughout the supply chain. Among other things this document provides instructions for filling out the related Substance Declaration Form as well as a representation of some parts of the Form.

In calling up the standard within contracts, the customer can require the supplier to declare

- 1) whether any of the substances within the product being supplied are on the declarable substances list
- 2) if there are any, which ones they are, and at what percentage (weight by weight) they are present

and

- 3) where it is easier for the supplier to do so, and when it is preferred by the customer, to enable the supplier to declare the complete materials breakdown within the product.

### **Finding SVHCs within articles**

The requirement to identify candidate list substances within articles down to 0.1% weight by weight (as required by REACH art. 33) can be a difficult task for manufacturers of articles, without an appropriate way of collecting the information from suppliers of subsidiary articles.

Calling up the standard for article manufacturers will result in detailed information about SVHCs for the articles being bought. However, for complex assemblies, there will need to be a robust management of the data as there will be many hundreds (potentially) of Declarable Substances Forms – one for each part number potentially. This is likely to need to have someone with a good knowledge of databases to manage the information.

The Aerospace Defence Trade Association of Europe (ASD) is working collaboratively on recommendations for the sourcing of IT to be able to deal with these issues. Information about this is available from the ASD-Europe website.

<http://www.asd-europe.org/Content/Default.asp?PageID=41>

### **Make to print suppliers**

With make-to-print supplied articles, it is usually relatively straightforward to find out the chemical composition down to 0.1% w/w, in order to establish whether there are any SVHCs contained within it.

After all, as the design authority, the company will have probably specified the fabrication material (s) for each subsidiary part, which means that a relatively simple calculation will give a good estimate of compositional breakdown. Therefore for make to print articles it is unrealistic to expect the supplier to be able to supply the 0.1% w/w requirement, when it should already be known to you the customer, and specified in the first place.

### **Using the declarable substances standard for substances and preparations**

Although the declarable substances standard was drawn up with the intention of enabling the manufacturers of complex articles to identify the SVHCs within the subsidiary articles they incorporate into their product, it can also be applied to

- preparations, to ensure that the SVHCs within a proprietary trade name are known and able to be managed
- substances, to ensure impurities that are SVHCs can be identified and managed.

**5. Filling in the Declarable Substances Form  
(SAE International ARP 9536 and ASD-STAN TR9536)**

Without guidance, the declarable substances form (the spreadsheet) can be a little daunting. The Recommended Practice explains what each of the fields within the spreadsheet is for, and the format of the information that is needed to be input.

The Declarable Substances Recommended Practice ARP / TR 9536 - Provides a Declarable Substances Chemical List including, a glossary of chemical family identifier abbreviations, chemical family names, CAS number, and EU Index number for associated chemicals.

The Practice explains the use of the declarable substances form.

Within the excel spreadsheet, there are several worksheets which provide just information and explanation, and several that are for data input.

Worksheet name	Purpose	Format
General Info-Instructions	To explain the overall structure of the spreadsheet and the colours of the user input fields for the supplier and for the customer.	An explanatory table
General Information	To define the relationship between the customer who has called up the use of the standard in a contract, the supplier of the product defined in the contract, and the definition of the product covered by the contract, together with some admin that will help with any audit of the declarable substances declaration.	Two sets of data – one for the customer, and one for the supplier
Declarable Substances - Instruct	This explains what each of the columns mean and the format of each column in the Declarable Substances sheet and the ARP 9536 sheet.	An explanatory table
Declarable Substances	Administrative information for audit purposes and product definition purposes for the ARP 9536 worksheet	User input defining the roles of people completing the form.
ARP 9536 Detailed List	The declarable substances list	A table of data with columns for user input to state if you have the substance in the product, and the %w/w of the substance
Full Disclosure-Instructions	This explains what each of the columns mean and the format of each column in the Full Disclosure sheet.	An explanatory table
Full Disclosure	This sheet is for companies who would find it easier to declare the complete content of the product rather than declare that the product does not contain any of the particular substances.	User input defining the roles of people completing the form and a blank form

## 6. How to obtain the Declarable Substances Standard and List:

### Available from SAE International as AS 9535 and ARP 9536

<http://www.sae.org/technical/standards/AS9535>

For ordering information contact:

SAE Customer Sales at 1-888-875-3976 (U.S. and Canada) 724-772-4086 (outside U.S. and Canada)

Fax: 724-776-3087

Email: [CustomerSales@sae.org](mailto:CustomerSales@sae.org)

Pricing for Substance Declaration Form

Single user (without distribution to suppliers)	\$250
For customers with distribution to 2-100 suppliers	\$1,000
For customers with distribution to 101-1,000 suppliers	\$5,000
For customers with distribution to 1,001-10,000 suppliers	\$10,000
For customers with distribution to over 10,000 suppliers	\$15,000

### Available from ASD-Stan as TR9535 and TR9536

The declarable substances form is available to download free of charge from the ASD website at

<http://www.bnae.asso.fr/reach/TR9535SubstanceDeclarationForm.xls>

The written standards can be bought from

<http://www.asd-stan.org/sales/SaleEngineStandardTR.asp>

ASD Stan Technical Report number	Description	Cost in Euro
TR9535	Aerospace series - Substance declaration	40
TR9535-9536	Aerospace series - Substance declaration / Declarable Substances Recommended Practice - Single user	80
TR9535-9536	Aerospace series - Substance declaration / Declarable Substances Recommended Practice - Licenced for 10 000+ users	80
TR9535-9536	Aerospace series - Substance declaration / Declarable Substances Recommended Practice - Licenced for up to 100 users	600
TR9535-9536	Aerospace series - Substance declaration / Declarable Substances Recommended Practice - Licenced for up to 1000 users	3,000
TR9535-9536	Aerospace series - Substance declaration / Declarable Substances Recommended Practice - Licenced for up to 10000 users	6,000
TR9536	Aerospace series - Declarable Substances Recommended Practice	40