



CHARTER 2010 – WAVE 1 PRODUCTS: ENVIRONMENTAL SAFETY CHECK SUMMARY

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To qualify their products as achieving Advanced Sustainability profile (ASP) status for the relevant product category under Charter 2010, member companies must, in addition to meeting all the other ASP criteria, be able to confirm environmental safety of their individual products in terms of each ingredient using the formal agreed Environmental Safety Check (ESC).

Basic principle

A Charter 2010 Wave 1 product (a laundry detergent or fabric conditioner) will pass the ESC if -

all the ingredients in the product formulation are shown to give projected environmental concentrations below the predicted no-effect level for aquatic toxicity.

The ESC: a risk-based approach

From the outset, in thinking about the Product Dimension of Charter 2010 it was accepted that working on the most relevant sustainability parameters per product category would be the priority. With laundry detergents/fabric conditioners as wave 1 products, an environmental safety element was seen as an essential component for the ASP for these products.

Within A.I.S.E. it was felt that a risk-based system should be used, rather than an existing hazard-based system. Under REACH, all substances will eventually be fully risk-assessed and environmentally safe use demonstrated according to predicted no-effect concentrations for each environmental compartment (water, air, and sediment etc). Ultimately, these REACH risk-assessments will be the cornerstone for demonstrating safety of an ingredient in terms of total quantities used in all registered uses. The full REACH environmental safety information will not be available before several years. A.I.S.E. had had the foresight and commitment to create the HERA (Human and Environmental Risk Assessment*) programme in preparation for REACH, and it was felt this work should be the foundation of the ESC.

How will the ESC operate?

The ESC consists of two stages:

Stage 1 requires only the use of the ESC Tool: the ESC Tool is essentially an Excel spreadsheet workbook that combines HERA as clearance for HERA-assessed ingredients with a conservative screening system for other, 'non-HERA' ingredients. This screening system is designed to reasonably project what a full HERA risk assessment for aquatic toxicity would be likely to indicate if it were carried out. It uses the same risk-

* See www.heraproject.com, a joint A.I.S.E. / Cefic project

based approach as HERA but in place of detailed analysis it uses more simplified assumptions.

The outcome is that the level and dosage at which a non-HERA ingredient is used in a specific formulation can be checked to ensure environmental concentrations would not exceed the predicted no-effect concentration based on conservative product tonnage benchmarks.

In practice, in a Stage 1 Check a company enters its formulation details into the spreadsheet. Using a series of parameters and environmentally relevant data for each ingredient, the spreadsheet calculates a Projected Environmental Safety Ratio (PESR). To pass the check, the PESR value calculated by the tool for the non-HERA ingredient must be <1 (i.e. not coloured "Red").

Stage 1 also includes exemptions for specific ingredients, e.g. common inorganics, REACH Annex IV/V organics and perfume ingredients covered by IFRA standards.

A Stage 2 Check, if needed, should be done when an ingredient is not yet included in the ESC Tool, or when a company decides to conduct its own, higher tier risk assessment for a specific ingredient that is already in the tool. In the latter case, a Stage 2 Check is essentially a refinement of the Stage 1 parameters.

The ESC scheme sets clear guidelines and rules for how a new ingredient should be added and what is required for a higher tier risk assessment so that companies can manage this process themselves. One important aspect of the Stage 2 Check is that it requires notification of key data used to A.I.S.E., and ratification by A.I.S.E. that they are valid and can be used in the ESC Tool. There is also a commitment to share the underlying information used for the Stage 2 Check (except for proprietary ingredients) with A.I.S.E. to allow the continuous improvement of the ESC Tool based on information provided by the companies.

Verification

It is accepted that independent verification of correct use of the ESC Tool and procedures by companies will be essential in order to retain credibility. The verification of the ESC Check of formulations will therefore be an integral part of the existing KPI verification carried out on behalf of A.I.S.E. by SGS International, an independent audit firm. The verification will be random and extensive enough to be statistically valid. On the other hand it is not expected to result in significant additional burden for companies.

How will the ESC be managed?

It is intended to provide on-going technical advice for companies regarding use of the ESC via a new ESC Task Force (ESC TF).

A.I.S.E., through ESC TF, will undertake action to regularly update the ESC tool based on notifications and information provided by companies of Stage 2 Checks, in order to further develop the ESC tool and to create a level playing field for all companies. Whenever companies have concerns or issues with the system, they will be able to raise them with A.I.S.E. Confidentiality will be preserved by following the same procedure as used with HERA, when necessary.

Further information

Additional to this summary on the ESC following information is provided:

-Flowchart/decision tree: this presents the outline of the procedures governing the ESC, which includes notification, ratification and continuous improvement of the ESC.

-Manual for the ESC, for both Stage 1 and Stage 2 Checks.

-The ESC V1.0 Tool.