

H&M SCREENING METHODOLOGY OF MANUFACTURING RESTRICTED SUBSTANCE LIST (MRSL)

Introduction

H&M has with concern for the health of customers as well as for the environmental and working condition, established H&M Chemical Restrictions for all products. H&M Chemical Restrictions consists of several parts with regard to product types. All products must fulfill their corresponding parts in Chemical Restriction and also must fulfill H&M Manufacturing Restricted Substance List (MRSL).

In this document, the methodology in screening hazardous chemicals into H&M MRSL and its monitoring procedure are included.

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1. Our Approach

In order to ensure the credibility of our MRSL process, the chemical screening methodology should include the following approach

- I. The chemical database includes a wide range of publicly available technical information¹ such as SIN list, EU REACH regulation.
- II. The screening methodology must take the intrinsic hazard approach into account based on precautionary principle². Physical hazard of products is also taken into consideration.
- III. The hazard of auxiliary chemicals and/ or breakdown products which are generated in production is assessed.
- IV. Continuously review the effectiveness of screening tool to identify the hazard of chemicals and at the same time monitor the outcome of other screening tools available in the market.
- V. In line with the right-to-know principle, the chemical screening criteria, types of hazardous property, method applied and data behind results must be publicly available to enhance a full transparency.

¹ Refer to Appendix 1

² Precautionary approach : It means that when scientific evidence suggests a substance may harm the environment or human health, but the type or magnitude of harm is not yet known, a preventative approach towards potentially serious or irreversible damage should be taken, recognizing the fact that such proof of harm may not be possible.

2. Our Step

The list of restricted chemicals in MRSL is determined by following three steps (See Figure 1).

2.1. Define the chemical substances in inventory list

A chemical inventory database is developed as a starting point. This chemical database come from a wide range of representative and reliable sources within the industry, including national and international regulatory, hazardous chemical lists (e.g. Substitute It Now – SIN list, EU REACH regulation, SVHC list) and authoritative scientific bodies (e.g. SciFinder). The database will be regularly updated whenever there is new change/information published.

Based on the information from data source, the chemicals will be assessed of its applicability in H&M productions. Chemicals will go for our next step of screening methodology if they are applicable. those chemicals known to be non-relevant to H&M productions are filtered out from inventory list. In addition, some chemicals are found to be unclear on its applicability; they will be put in study list for further investigation.

For data source details, please refer to Appendix 1.

2.2. Define the hazardous level in chemical list

Greenscreen® screening methodology is the currently best publicly available process to assess the hazard of chemicals, we had used the Greenscreen® list translator (GSLT) as screening tool to produce the list of restricted chemicals in MRSL.

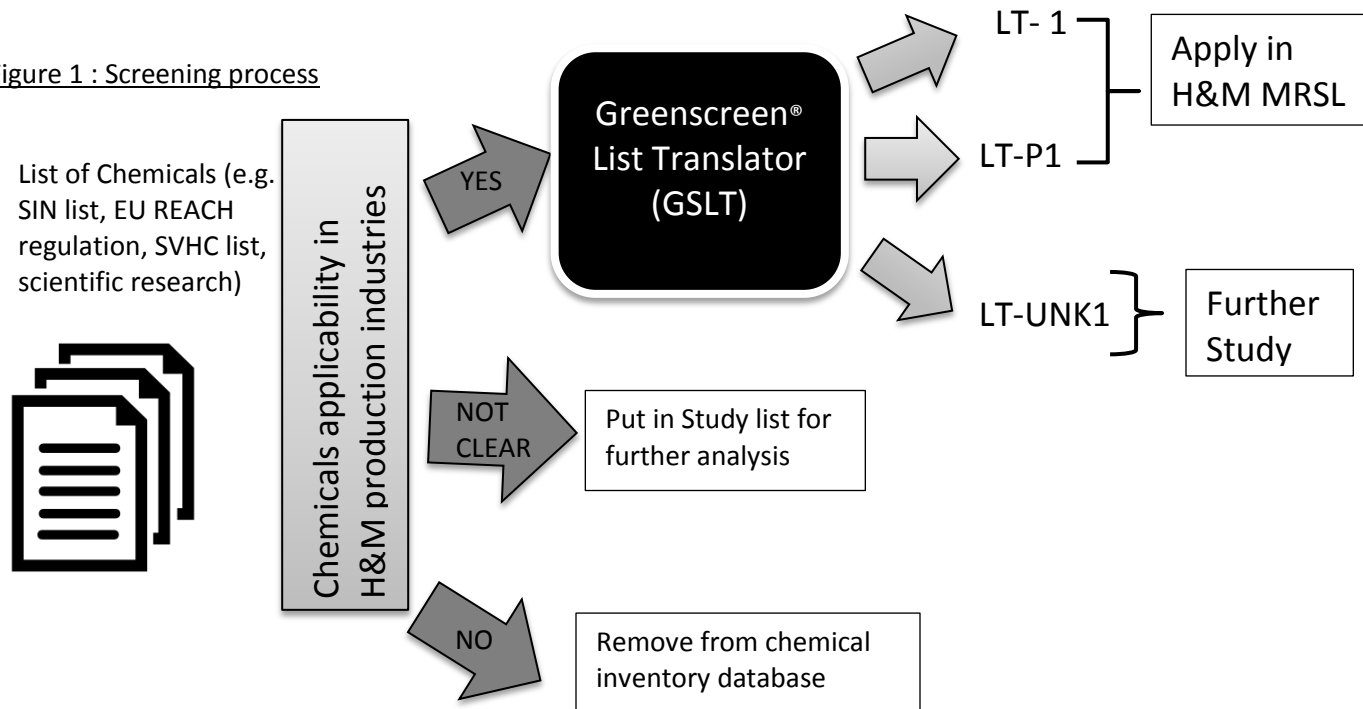
Below are the assessment and related H&M actions taken using GSLT.

| GSLT Score | Assessment using GSLT | H&M Action |
|--|---|--|
| LT-1 | Benchmark 1 chemical using the full GreenScreen® method. A LT-1 chemical score is based on screening lists that identify it is a Chemical of High Concern. | Due to its high ranking in hazardous level, these chemicals were selected in H&M MRSL. |
| LT-P1 | Possible Benchmark 1 chemical using the full GreenScreen® method. A LT-P1 chemical score reflects the presence of the chemicals on screening lists and some uncertainty about the classification for key endpoints. | Due to its potential high ranking in hazardous level, these chemicals were selected in H&M MRSL. |
| LT-UNK | Unspecified Benchmark chemical using the full GreenScreen® method. A LT-UNK chemical score indicates that there is insufficient information to apply a Benchmark scoring to the chemical. Typically, only hazardous chemicals are found on hazard lists. However, lack of presence on hazard lists can also mean that the chemical has not been well tested. Therefore the resulting conclusion using the GSLT is that the Benchmark U score is Unspecified pending full GreenScreen® review. | Further study |
| <i>Data source :</i> http://www.greenscreenchemicals.org/method/greenscreen-list-translator | | |

2.3. Continuously monitor the screening procedure

H&M will continuously monitor and study various public sources, including but not limited to national & international regulation, scientific studies. The screening procedure will be continuously updated at least annually. All relevant MRSL documents will be updated accordingly, so as to ensure the most up-to-date version is implemented.

Figure 1 : Screening process



2.1: Define the chemical substances in inventory list

2.2: Define the hazardous level In chemical list

2.3: Continuously monitor the screening procedure

Appendix 1 : Data Source

- <http://chemsec.org/what-we-do/sin-list>
- <http://echa.europa.eu/regulations/reach>
- <http://echa.europa.eu/candidate-list-table>
- <http://saferchemicals.org/chemicals/>
- <https://scifinder.cas.org>
- <http://www.chemspider.com/>
- <http://esc.syrres.com/fatepointer/search.asp>
- <http://webnet.oecd.org/ccrweb/search.aspx>
- https://cfpub.epa.gov/ecotox/browse_index.cfm?sub=chemical
- <http://ambit.sourceforge.net/euras/>