Introduction

The ZDHC Manufacturing Restricted Substances List (ZDHC MRSL) is a list of chemical substances banned from intentional use in suppliers that process textile materials and trim parts in textile, apparel, leather, and footwear. The ZDHC MRSL is a living document, and is updated as needed to expand the materials and processes covered and to add substances that should be phased out of the value chain. This Principles and Procedures (PnP) document contains and explains the process used to update the ZDHC MRSL.

The Principles and Procedures ensure that the update process remains transparent, inclusive, and efficient whilst keeping in mind that the updates should reduce hazard and impact based on the best available information.

Revision History

In the spirit of continuous improvement, the ZDHC MRSL Update Principles and Procedures (PnP) will be reviewed on a regular basis and revised as needed to incorporate learnings and opportunities identified during the practical application and implementation of these proceedings. This update does not change the update process. Instead, the changes in this version are limited to clarifications of procedures and Roles and Responsibilities. A historical record of the updates to these guidelines is noted below.

<table>
<thead>
<tr>
<th>Version Number</th>
<th>Changes</th>
<th>Time of Publication</th>
</tr>
</thead>
</table>
| Version 3.0    | • Information on ZDHC Principles Section  
• Updates in Figure 1, 2, and 3 | November 2022 |
| Version 2.0    | Clarification of process flow chart, responsibilities, review process | May 2021 |
| Version 1.0    | Release of Version 1.0 | January 2019 |

For the avoidance of doubt this Disclaimer applies to all related documents produced by ZDHC, specifically: ZDHC Wastewater Guidelines, ZDHC Sludge Reference Document, ZDHC Wastewater and Sludge Laboratory Sampling and Analysis Plan and ZDHC Wastewater Industry Implementation Approach, etc.
1.0 ZDHC MRSL Update Principles

ZDHC is committed to the following objectives for updates to the ZDHC MRSL.

- **TRANSPARENCY**: meaning using a publicly transparent process for receiving and evaluating proposals to add chemicals to the ZDHC MRSL.
- **INCLUSIVITY**: meaning engaging stakeholders from ZDHC Contributors i.e. Brands, Value Chain Affiliates (including the textile and footwear industry and the chemical industry) as well as Associates such as non-governmental organisations and industry association/multi-stakeholder organisations. Further, any organisations and companies, including ZDHC Approved Solution Providers and non-ZDHC Contributors, can be part of the update process through submitting proposals for additions to the ZDHC MRSL.
- **BEST AVAILABLE INFORMATION**: meaning applying a science-based decision making approach, that considers both the degree of hazard and extent of exposure potential in setting priorities using the best available information as well as allowing for the incorporation of significant new information to ensure prioritisation decisions remain as current as is possible.
- **REDUCE HAZARD**: meaning a regular update process that ensures hazardous chemicals are added to the ZDHC MRSL when viable alternative chemicals or processes become commercially available. The regular update process ensures a system of continuous improvement to add hazardous chemicals to the ZDHC MRSL ensuring that possible risk to human health and the environment is reduced where viable safer alternative chemicals or processes are commercially available, technically and economically feasible. For proposed MRSL additions that meet listing criteria but do not yet have safer alternatives at scale, innovation to find alternatives is encouraged by listing the substance on the ZDHC Candidate List with a sunset date. If a chemical substance is legally restricted in chemical formulations or as chemical substance then ZDHC may add this substance in the ZDHC MRSL in absence of safer alternatives.
1.0 ZDHC MRSL Update Principles

- **REDUCE IMPACT**: meaning keeping in mind that hazardous chemicals are one part of the overall sustainability of the industry and that reducing negative impact on people and the environment is the overarching goal. Therefore, the wider implications on water and energy use should also be taken into account when alternatives are evaluated.
- **EFFICIENCY**: meaning a timely and dependable cycle of review, based on the efficient use of the ZDHC organisational resources.

2.0 ZDHC MRSL Update Process at a Glance

2.1 Five Step Review Process

Figure 1 provides a brief summary of the entire ZDHC MRSL update process. This five step review process takes place on a biennial (or as needed) basis, and may include adding new substances, updating limits, changing test methods, and/or scope of the ZDHC MRSL. The submission of a proposal must take place on the ZDHC MRSL Submission Platform. All other review steps must take place on the ZDHC MRSL Submission Review Platform. In addition to the substances from the ZDHC MRSL Submission Platform, the MRSL Council is empowered to unilaterally add substances to the ZDHC MRSL without a formal proposal to make the ZDHC MRSL more robust or align with other certification schemes to enable stakeholders a much wider choice of approved formulations.
Figure 1: ZDHC MRSL Update Process

1. Ask additional information

Step 1: Proposing Entity submits proposal to ZDHC through ZDHC Submission Portal
- Submission is based on information requirements outlined in the MRSL Submission Platform and uploading of supporting documents by Proposing Entity

Step 2: ZDHC screens the submitted proposals for completeness of information
- Discard proposals that are irrelevant or out of scope
- Identify and merge duplicate submissions
- In case of incomplete submissions, ask Proposing Entity for additional or complete information

Step 3: Technical Review Task Team (TT) independently reviews the information and provides recommendations to the MRSL Council
- Provide technical comments and additional information to the submissions
- Provide recommendations to MRSL Council to which category the proposal will go (see Figure 2)

Step 4: MRSL Council reviews submissions and TT recommendations and provides final decision to ZDHC
- Review of existing ZDHC MRSL substances - limits and scope
- Review submission documents and TT recommendations
- Review Candidate List substances for potential inclusion in MRSL
- Provide ZDHC with the final decision as per options in Figure 2

MrSL Council is empowered to unilaterally add substances to the MRSL without a formal proposal to make the MRSL more robust or align with legislation (where applicable) or relevant certification schemes to enable stakeholders a much wider choice of approved formulations. This can be an additional substance in an MRSL Group or a standalone substance

2. Inform final MRSL Council’s decision

Step 5: ZDHC makes necessary updates to the MRSL document and informs Proposing Entity
- Discuss
- Ask additional information
### 2.2 Decision Matrix

The Technical Review Task Team must provide the MRSL Council with a recommendation for the substance(s) proposed through the Submission Platform and verified by ZDHC. During Step 4, the MRSL Council must make a final decision on these proposed substances, as well as for those substances which are unilaterally added by the MRSL Council, for inclusion in one of the below decision options in Figure 2.

The Decision Options for recommendations to the MRSL Council or decisions by the MRSL Council are outlined below in Figure 2.

*Figure 2: Decision Options for ZDHC MRSL Submissions*

<table>
<thead>
<tr>
<th>A) ZDHC MRSL</th>
<th>B) ZDHC Candidate List</th>
<th>C) Substances Under Review - pending further information</th>
<th>D) Archive List</th>
</tr>
</thead>
</table>
| - Add new substance  
  OR  
- Add new engineering control  
  OR  
- New manufacturing limit concentrations for previously listed substances  
  OR  
- Inclusion in MRSL list will take place in the next revision or update | - Chemical substances lacking viable, safer, or widely/readily available alternative chemicals or processes  
- Enough information on the proposed substances (missing tox data or amounts currently found in formulations etc.) is not available  
- For each chemical substance included in this list, a specific time-scale for inclusion to the ZDHC MRSL may be indicated. e.g. "Substance X will be added in 2025" | - A substance without required data and information cannot be reviewed for addition to the ZDHC MRSL.  
- ZDHC may ask the wider ZDHC Community for data on the missing points  
- Once the information is available the proposal may be re-entered in the review process for inclusion in the ZDHC MRSL or ZDHC Candidate List | - Substances that are no longer in use within the textile, apparel, leather and footwear industry and are therefore no longer necessary for listing within the ZDHC MRSL.  
- These substances are recognised to be hazardous; however, they no longer need to be routinely tested because they have been phased out of use in the industry |
### 2.3 Roles and Responsibilities

To better understand the clear roles and responsibilities of different key stakeholders during the ZDHC MRSL update review process, please see the following table: Roles & Responsibilities. See Appendix A for more information of different key stakeholders.

**Figure 3: Roles and Responsibilities of Key Stakeholders**

<table>
<thead>
<tr>
<th>Step</th>
<th>Roles and Responsibilities</th>
<th>ZDHC</th>
<th>Technical Review TT</th>
<th>MRSL Council</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-review</td>
<td>Define submission criteria</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Pre-review</td>
<td>Review of existing ZDHC MRSL substances - limits and scope</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Throughout</td>
<td>Provide advice on correct procedures and governance in accordance with ZDHC Guidelines and processes</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td>Remove duplicate and out-of-scope proposals obtained through MRSL Submission Platform. Identify incomplete submissions and seek complete information from Proposing Entity</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 3</td>
<td>Provide comments and additional information on proposed substances submitted by ZDHC</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 3</td>
<td>Recommend Decision Option as per Figure 2 to MRSL Council</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 3</td>
<td>Additional research and queries on proposed substances</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Step 4</td>
<td>Review of submissions, comments, additional information from Technical TT and finalise Decision Options</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 4</td>
<td>Add substances to the Decision Options without a formal proposal to make the MRSL more robust or align with other certification schemes</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Step 4</td>
<td>Review Candidate List substances for potential inclusion in MRSL</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Step 4</td>
<td>Determine or verify formulation limits that prevent intentional use</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Step 4</td>
<td>Add and or verify test methods in consultation with Laboratory Advisory Group</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Step 4</td>
<td>Sign-off on final decisions</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Step 5</td>
<td>Implement final decisions of MRSL Council and update the MRSL document</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>
3.0 Submission Process and Criteria

To further the information provided in Section 1 of this document, this “Submission Process and Criteria” section describes the criteria, required data, and information to be submitted by the proposing entities for updating the ZDHC MRSL. The Proposing Entity must submit their proposal via the ZDHC MRSL Submission Platform. Proposals must be submitted and accompanied by required data and information outlined in this chapter.

The ZDHC MRSL Update process is a science-based evaluation. To ensure this, all submitted proposals should include feasibility and timing of restrictions as well as critical information to efficiently support the decision-making process. This may include a sunset date for inclusion or review. For example, “substance X should be added in the ZDHC MRSL in 2025”.

3.1 Identification of Proposing Entity

Proposing Entities should provide basic information including their name and email address when submitting a proposal. This is necessary to complete Step 5, where ZDHC informs the Proposing Entity of the final decision of their proposal. ZDHC may also use this information during Step 2 when they communicate with the Proposing Entity to gain additional information or clarification on the submission on behalf of the Technical Review Task Team or MRSL Council.

3.2 Identification of Proposed Substance

The Proposing Entity must submit at least one of the below data points in order to identify the substance:
- IUPAC name(s) of the proposed chemical substance
- Chemical Abstract Service number (CAS)
- European Inventory of Existing Chemical Substances (EINECS) number
- Colour Index (CI) Number

3.3 Hazard

Proposing Entities should indicate the Globally Harmonized System (GHS) or equivalent classification of the substance. This classification may be supported by hazard ranking according to its Benchmark in the GreenScreen® List Translator, GreenScreen®, or similar type toxicology evaluation (e.g. SciVera Lens, ToxServices ToxFMD Screened Chemistry), and / or legal restrictions.

3.4 Volume

The volume in use in the textile, apparel, leather and footwear industry (the Industry) is an indicator of its pervasiveness and the potential for exposure. These are critical to determine the relevancy in the Industry and prioritisation. Proposing Entities should obtain data on the estimated annual tonnage of the proposed substance in the Industry, and provide supporting documentation. Proposing Entities should select which of the following ranges the proposed substance falls under:

- < 1 TON
- 1 – 10 TONS
- >10 – 100 TONS
- > 100 TONS

Volume data for hazardous chemicals in commercial use are generally available in the marketplace. Various kinds of volume data for chemical substances, including specific industry use, can be purchased from market research and investment firms. Note that the EU REACH Regulation makes volume a standard information requirement for the Registration part of REACH. This may include or relate to The Industry but is not necessarily limited to the
3.5 Use Pattern

Use Pattern – like volume – is recognised as an indicator of a chemical’s exposure potential. If a substance is used at multiple stages of the value chain, it may be more pervasive and possibly a higher priority than substances confined to a single stage.

A checklist of Use Pattern cases is provided on the submission page. The Proposing Entity should provide as much information as they can when completing this section. This includes the raw materials and/or processes where this product is used, and how widespread the chemical substance is in that material or process, and supports these claims with as much supporting documentation as possible. This can include declarations by chemical formulators and test data (e.g. chemical substance ZDHC MRSL testing/screening, product, wastewater).

3.6 Formulation Limit Value of Proposed Substance (Optional)

The Proposing Entity may submit a proposed formulation limit value for the proposed substances. Substances will be evaluated for inclusion on the ZDHC MRSL even if no limit is proposed.

3.7 Testing Methodology (Optional)

When possible, the Proposing Entity is encouraged to cite internationally recognised test method(s) for analysis of the substances, and provide the literature reference for any non-standard method, or state if such a method does not exist.

Substances will be evaluated for addition to the ZDHC MRSL even if no testing method is proposed.

3.8 Safer Alternative(s) to Proposed Substance (Optional)

In order to restrict a substance currently in use in the Industry, ZDHC encourages safer alternative(s) to be identified. These may be a different kind of chemical substance or process, not just a single chemical substitution; however, they must be functional for the relevant use cases and commercially available. Safer alternatives should also have a lower hazard rating to prevent so-called “regrettable substitutions”.

If a substance is not classified as high priority, it may end up on the ZDHC Candidate List until a safer alternative is identified, or may not be listed at all.
4.0 Evaluation of Submitted Proposals and Decision-Making Process

If a proposal is incomplete or questionable, the MRSL Council may use their own expertise and connections to complete or verify the proposal. They may also request that ZDHC ask the Proposing Entity or other qualified parties for clarification or additional information.

4.1 Evaluating Submitted Proposal based on the Submission Criteria

For Hazard, Volume, and Use Pattern, the MRSL Council verifies and amends the information included in the submission including: GHS Classification, estimated tonnage, and applicability.

For the remainder of the submission criteria, the MRSL Council evaluates the proposed formulation limit based on credibility, impact to the Industry, test methods, and viability of scalable safer alternatives.

In case any information is absent, the MRSL Council may provide supporting information to support decision making. See Appendix C for more information on the decision making guidelines for MRSL Council.

4.2 MRSL Council Final Decision to ZDHC

The MRSL Council uses this combined information to support their final decision. In the case of ambiguous data, the MRSL Council reserves the right to form a decision based on their experience and knowledge. They may choose any of the 4 decision options listed in Figure 2.

When the decision is made to add a substance to the ZDHC MRSL, a precautionary approach is followed and applied to both the substance and any substitutions. This avoids potential "regrettable substitutions" that may be worse than the substance targeted for replacement.

4.3 Conclusions and Report

The MRSL Council should develop and submit a formal written decision for each proposal submitted via the ZDHC MRSL Review Platform that was not filtered out by ZDHC Management Team during Step 2.

The written decision should include a summary of reasons for their decision. If the MRSL Council is not able to agree on a decision, the reasons should be summarised with both the majority and minority’s opinions. The majority decision will become the official position of the MRSL Council unless the disagreement is significant enough to keep the substance listed under “Substances Under Review Pending Additional Information” or the “ZDHC Candidate List”.

4.4 Reviewing and Acting on MRSL Council Decision

Substances proposed on the ZDHC MRSL Submission Platform will be reviewed annually on a rolling basis. All revisions to the ZDHC MRSL, Candidate List, Substances Under Review, and Archive List will follow the steps highlighted in this document. ZDHC is responsible for setting the cadence for review and updates while taking into consideration the status of current events, the Industry, and stakeholder groups.

After the MRSL Council reports its final conclusions and decisions in writing, the ZDHC reviews the final decision, notifies the Proposing Entity, and makes any necessary changes to the ZDHC MRSL, Candidate List, Archive List, or Substances Under Review list. ZDHC may request the MRSL Council to respond to any questions or concerns relating to their conclusions and decisions. As appropriate, the MRSL Council may update their report in response to ZDHC’s enquiries.
APPENDIX A
Key Stakeholders in the Update Process

MRSL Council

The MRSL Council is an independent group who uses an objective, science-based approach to review proposed substances.

The MRSL Council is composed of technical experts (Council members) from diverse segments of the textile, apparel, leather, and footwear industry, and other significant stakeholders with relevant industry knowledge and experience. The group has a chairperson to manage and organise the group activities. This chairperson ensures the group reports its final decision for submissions on the ZDHC MRSL Submission Review Platform.

The MRSL Council is bound by the operating principles laid down in the ZDHC Council Playbook, which is only made available to ZDHC Council members.

ZDHC Technical Review Task Team (TT)

ZDHC Contributors may decide to join the ZDHC MRSL Technical Review Task Team. Once the review process starts, new members will not be accepted until the start of the next round.

The Technical Review Task Team does not have a formal vote in decision-making by the MRSL Council.

ZDHC Roadmap to Zero Programme

The ZDHC Roadmap to Zero Programme manages the day to day activities along the process of the ZDHC MRSL update process including communications between the Proposing Entity and the Technical Review Task Team or MRSL Council.

The ZDHC does not have a formal vote in decision-making by the MRSL Council.

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APPENDIX B
ZDHC MRSL Scope: Materials and Process

More information on the ZDHC MRSL Scope: Materials and Processes [here](#).

APPENDIX C
Decision Making Guidelines for MRSL Council

Decision Making

- In common with decision making in the ZDHC and in the spirit of collaboration, MRSL Council will strive for alignment on all decisions they are requested and/or need to make. This principle requires MRSL Council to ‘discuss then decide’ rather than waiting for agreement on every detail.
- If alignment cannot be reached, decisions can be adopted following voting as the group itself determines is appropriate – see section on ‘Voting’ below.
- It is recommended for MRSL Council to consider the recommended meeting quorum and voting processes described below for guidance on best practices with regard to quorum and voting.

Quorum

- A majority of MRSL Council Members present in person (over two-thirds), by teleconference or other communication equipment by which all members participating can hear each other will constitute a quorum.
- The affirmative vote of a two-thirds (66.6%) majority of the MRSL Council Members present (assuming quorum) shall be necessary for the adoption of any MRSL Council decision.
Voting

In the event that a voting process is needed to make a decision the following applies:

- Each MRSL Council Stakeholder Group is entitled to one (1) vote. Identified Stakeholder Groups are: Governmental Organisations, Non-Governmental Organisations, Service Providers, Chemical Industry and Manufacturers. ZDHC may identify additional groups during the process.
- Voting by the MRSL Council shall occur in a properly notified meeting of the group and communication by which all persons participating in the meeting are able to hear one another, and such participation shall constitute presence in person at the meeting.
- Votes during an official meeting may be registered by voice, hand or ballot delivered in person or electronically.