The Zero Discharge of Hazardous Chemicals Programme's Manufacturing Restricted Substances List (MRSL) Conformance Guidance

### Ø ZDHC

The Roadmap to Zero Programme

Guidance for Demonstrating
Chemical Formulation
Conformance to the ZDHC MRSL

### Contents

	8		8	•	4

Α	Int	roduction	4
	1	The ZDHC MSRL	4
	2	ZDHC MRSL Conformance	5
		2.a Demonstrating Conformance to the ZDHC MRSL	5
		2.b ZDHC MRSL Conformance Levels	6
	3	Using this Guidance	6
	4	Roles and Responsibilities	6
		4.a The ZDHC Management Team	6
		4.b Brands, Material Suppliers, and Product Finishers	7
		4.c Certification Bodies	7
		4.d Chemical Suppliers	7
	5	Using this Conformance and Looking for Information	7
		5.a Brands, Material Suppliers, and Product Finishers	7
		5.b Certification Bodies	8
		5.c Chemical Suppliers	8
	6	Primary Responsibility for Conformance	8
	7	Frequency of Updates to Conformance Information	8
В	MF	RSL Conformance Process	9
	1	What is MRSL Conformance?	9
	2	Conformance Process Levels	9
С	MF	RSL Conformance Levels Elements	12
	1	Registration	13
	2	Level 0 (Provisional)	14
	3	Level 1	15
	4	Level 2	16
	5	Level 3	16



Ac	ceptance of MRSL Conformance Certifying Bodies	17
1	General requirements for Certification Body	17
	1.a Responsibility	17
	1.b Impartiality, Objectivity and Non-discriminatory	17
	1.c Access to Information	18
	1.d Confidentiality	18
	1.e Resource	18
	1.f Quality Management System	19
	1.g Certification Decision	21
	1.h Documentation	21
2	Approval Process	21
	2.a Application Submission and Contract	21
	2.b Schedule	21
	2.c Self-Assessment and Review	21
	2.d Findings	22
	2.e Decision and Review	22
An	nex A - Quality Control Guidance for Analytical	
Tes	st Data Supporting ZDHC MRSL Conformance	23
	· ·	38
Glo	ossary	39
	2 An Tes	1.a Responsibility 1.b Impartiality, Objectivity and Non-discriminatory 1.c Access to Information 1.d Confidentiality 1.e Resource 1.f Quality Management System 1.g Certification Decision 1.h Documentation 2 Approval Process 2.a Application Submission and Contract 2.b Schedule 2.c Self-Assessment and Review 2.d Findings



### A. Introduction

Using chemicals of known quality that meet the requirement of the ZDHC Manufacturing Restricted Substances List (ZDHC MRSL) is an important part of chemical management that will lead to zero discharge of hazardous chemicals.

This document describes the way in which chemical suppliers can provide indicators of conformance to become ZDHC accepted for MRSL conformance. Chemical suppliers, brands, material suppliers, product finishers, and certification bodies intend it for use.

The ZDHC Programme will not provide legal accreditation to certification bodies or provide certification or testing services for chemical formulations to determine their conformance to the ZDHC MRSL.

The intention of the ZDHC MRSL
Conformance Guidance is to assist brands
and their value chains find recognised,
credible processes which provide an
indication that a chemical formulation is in
conformance with the ZDHC MRSL.

#### 1. The ZDHC MSRL

The ZDHC MRSL is a list of chemical substances banned from intentional use in facilities that process textile materials, synthetic leather, leather, and trim parts in textiles and footwear. This includes not only chemicals used specifically for production, but also cleaning supplies, machine cleaners, lubricants, etc. that are in use in the facility for maintenance and support.



This is different from a Restricted Substances List (RSL), which sets limits on chemical substance concentrations in the final product. The ZDHC MRSL sets restrictions on trace concentrations for banned chemical substances that are not intentionally used, but may be found as unintended contaminants within a commercial chemical formulation.

The ZDHC MRSL is a living document and will be updated as needed to expand the materials and processes covered, and to add substances that should be phased out of the value chain. The ZDHC MRSL can be downloaded at www.roadmaptozero.com

#### 2. ZDHC MRSL Conformance

The ZDHC MRSL provides brands and their value chains with a harmonised approach to managing chemical formulations used during the processing of raw materials and garment finishing within the textile, leather and footwear value chain.

This document will assist interested parties assess whether chemical formulations are likely to conform to the ZDHC MRSL. By using chemical formulations that are in conformance to ZDHC MRSL limits, material suppliers can assure themselves, and their customers, that banned chemical substances are not intentionally used during production.

2.a Demonstrating Conformance to the ZDHC MRSL

There are many possible ways to assess conformance to the ZDHC MRSL. The ZDHC Programme chooses to do this by relying on third-parties who provide certification systems, based on input stream management concept and product evaluation, that are recognised and accepted by the ZDHC Programme as credible.

The ZDHC Programme will review the methods and business practices of third-party certification bodies that apply to the ZDHC Programme for ZDHC MRSL conformance acceptance. Those that meet the requirements outlined in Section D of this document, will be accepted as providing an indication of ZDHC MRSL conformance.

Chemical formulations with certifications from these suppliers are termed ZDHC MRSL conforming and will be listed in the ZDHC Gateway - Chemical Module¹. While some of the certification systems may go beyond checking for ZDHC MRSL conformance, the ZDHC MRSL conformance process only refers to whether the chemical formulation meets the requirements of the ZDHC MRSL.

Not all chemical suppliers currently work with a third-party certification body. To account for this, the ZDHC MRSL conformance process includes a process to assist chemical suppliers on their journey to demonstrating conformance through third-party certification. They can register their company and the safety data sheet (SDS) for the product with the ZDHC Programme in the ZDHC Gateway - Chemical Module.

1Currently in development

### 2.b ZDHC MRSL Conformance Levels

Certification systems differ in their approach and depth of their reviews of chemical formulations. In general, the less that is known about the chemical formulation and the chemical supplier, the less confidence there is that the chemical formulation will consistently meet the ZDHC MRSL criteria.

Material suppliers and brands may have their own preference as to which ZDHC MRSL conformance level best fits their business practice and the risk of ZDHC MRSL failure they are willing to tolerate.

The ZDHC MRSL conformance process offers brands, material suppliers, and product finishers a choice of recognised and accepted options to provide ZDHC certificates. In recognition of the different approaches and risks related to depth of review, there are four levels of ZDHC MRSL conformance indicators.

The higher the conformance level, the more confidence there is that the chemical formulation will consistently meet and conform to the ZDHC MRSL. The ZDHC MRSL conformance indicator levels are:

 Registered (Chemical company, formulation name, and safety data sheet)

- Self-declaration (Level 0)
- Conforming (Level 1-3)

Note: There is no conformance to the ZDHC MRSL assured by a formulation that is only registered with ZDHC Gateway - Chemical Module.

#### 3. Using this Guidance

This guidance document specifies the required elements of each conformance indicator level and the requirements for ZDHC accepted third-party certification bodies. In this document, brands and their suppliers can find the requirements for demonstrating ZDHC MRSL conformance, and third-party certifiers can find the requirements for ZDHC acceptance.

#### 4. Roles and Responsibilities

#### **4.a The ZDHC Management Team**

The role of the ZDHC Management Team, or its designee, is to select and accept independent third-party certification bodies that review chemical formulations and, as part of that certification, provide assurance that the formulation is likely to conform to the ZDHC MRSL. The ZDHC Programme is providing a system to help brands and their value chain find recognised, credible third-parties that provide indicators (in the form of certifications) that

a chemical formulation will be in conformance to the ZDHC MRSL requirements.

The ZDHC Programme will not review or certify chemical formulations to determine their conformance to the ZDHC MRSL. That is the role of the third-party certification bodies.

The ZDHC Programme is not granting legal accreditation upon third-party certification bodies or telling them what and how they should examine chemical formulations.

The decisions regarding how certifications are awarded is the responsibility of the certifiers.

### 4.b Brands, Material Suppliers, and Product Finishers

The role of brands, material suppliers, and product finishers is to ask chemical suppliers for chemical formulations that conform to the ZDHC MRSL and have a self-declaration, test report or accepted third-party certification verifying conformance. They are also expected to use the Chemical Module of the ZDHC Gateway as a sourcing tool for ZDHC MRSL conforming formulations.

#### **4.c Certification Bodies**

The role of certification bodies is to independently maintain the certification system for review of chemical formulations and.

if desired, supply the needed information about the certification system to the ZDHC Programme to determine their acceptability to assess ZDHC MRSL conformance in accordance with the conformance indication levels specified above.

The certifier is expected to have a system in place to investigate feedback from stakeholders about certified formulations reported to have not met the criteria for which they are certified. Certification bodies should meet the requirements as specified in Section D of this document and make their methods and validation data available to chemical suppliers, brands, material suppliers and product finishers upon request. Conformance level determinations should be fully transparent in their methodology.

#### 4.d Chemical Suppliers

Chemical suppliers will independently decide whether to register their formulations with the ZDHC Gateway - Chemical Module and which third-party certifications (if any) they will maintain for their products.

## 5. Using this Conformance and Looking for Information

### 5.a Brands, Material Suppliers, and Product Finishers

Dyeing and finishing mills, synthetic leather

producers, laundries, printers, tanneries, footwear assembly facilities or anywhere that chemical formulations are used for the production of textile, leather and footwear, can use this guidance to decide what type of certification they might ask for as indicators of conformance the ZDHC MRSL.

This guidance can also be used by brands that want to help their value chain find ZDHC accepted certifiers of ZDHC MRSL conformance. See Section C in this document for the differences between conformance indicator Levels 1-3 and Annex A for testing guidance for Level 1.

#### **5.b Certification Bodies**

Certification bodies will use this guidance to understand what information is required to be reviewed by the ZDHC Programme to be listed as an accepted certification body. See Sections C and D of this document to review the requirements for a certification system to become accepted.

#### **5.c Chemical Suppliers**

Chemical suppliers can use this guidance to understand what the requirements are, and the differences between the ZDHC MRSL conformance indicator levels. See Section C of this document to review the differences between the information expected to be

exchanged with the certification body for Levels 1-3 and Annex A for testing guidance for Level 0.

## 6. Primary Responsibility for Conformance

The primary responsibility for assuring conformance with any legal requirements lies with the organisation that places the chemical formulation on the market. Regardless of the independent certifications of conformance or listing as ZDHC MRSL conforming, the chemical supplier has a contractual and legal duty to ensure that the product will perform its declared function, and not endanger the health or safety of the end user if used according to the risk management measures mentioned in the safety data sheet and according to the chemical suppliers application recommendations.

## 7. Frequency of Updates to Conformance Information

In the case that a chemical formulation changes, chemical suppliers must update their certifications. The length of validity for the certification depends on the certification system used. The ZDHC Programme encourages certifying bodies to indicate which ZDHC MRSL version the certificate is valid for. It is expected that no chemical formulation will be more than one version behind the latest version in certification.

### **B. ZDHC MRSL Conformance Process**

#### 1. What is MRSL Conformance?

ZDHC MRSL conformance means that the chemical formulation does not contain any of the chemical substances on the ZDHC MRSL above the ZDHC MRSL threshold commercial formulation limit values.

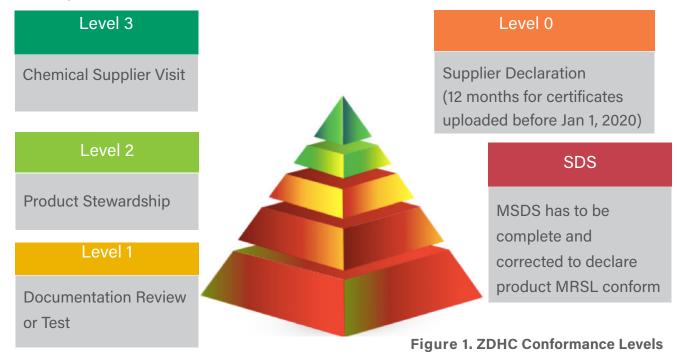
Registration of the chemical company and their products with the ZDHC Gateway - Chemical Module is the initial step in the process to gain visibility about the chemicals in use throughout the industry. Beyond registration, independent, third-party evaluation of the claims by the chemical company regarding ZDHC MRSL conformance give confidence and an indication that the chemical formulation meets the requirements of the ZDHC MRSL.

Recognising that not all certifying systems are equivalent, the conformance indicator

Levels 0-3 give a confidence rating that this requirement would be met. The higher the level, the more confidence there is that the chemical formulation will meet the ZDHC MRSL requirements. This is because more information is known about the chemical formulation and the chemical supplier.

#### 2. Conformance Process Levels

As specified above the ZDHC MRSL conformance Levels are 0, 1, 2, and 3. The higher the level number, the more rigorously the chemical formulation and chemical supplier practice have been reviewed. This is illustrated in Figure 1 below. Higher conformance indicator levels are expected to result in a lower probability of any ZDHC MRSL chemical substances being present i.e. higher confidence in that product and the chemical supplier.



Note that level 0 is defined as Provisional and ZDHC MRSL Conforming is classed as Level 1, 2, and 3.

Provisional and MRSL Conforming registrations are valid for the following lengths of time:

- Provisional (Supplier Declaration), 12 months after which it must be renewed at a higher level
- Level 1 conformance established based on an analytical test only is valid for 24 months after the test report must be re newed
- All other conformance certifications are valid until the expiration date of the certificate

Conformance to the ZDHC MRSL at any level means that the formulation also meets the conformance requirements of the lower Levels. This means that there is no need to obtain certifications for the lower conformance Levels.

In Figure 2, Pathway to ZDHC MRSL
Conformance for Chemical Formulations, an example of a chemical formulation
evaluation process is illustrated. First, the formulation of interest is selected. Then, if the product has an existing, accepted third-party certification, the registration will be completed automatically by exchange of data with the certifier to validate the claimed level of certification.

If there is no third-party certification, the chemical supplier has the option to register with the ZDHC Gateway - Chemical Module. (In the context here, third-party refers to an independent body – i.e. not the chemical supplier or brand themselves).



Figure 2. Pathway to ZDHC MRSL Conformance for Chemical Formulations **Chemical Formulation** Register Chemical Supplier, Conformance Formulation Name and SDS Level Registered within ZDHC Chemical Registry Third-Party certification Yes or test No report available? Is the Supplier Declaration - Level 0: report No

valid

?

Is test or certification ZDHC

accepted?

Yes

Yes

(12 months for certificates uploaded

before Jan 1, 2020)

Assign to ZDHC MRSL

Conformance Level 0

**CONFORMANCE LEVELS** 

= Provisional /0

**CONFORMANCE LEVELS** 

= Conforming / 1

**CONFORMANCE LEVELS** 

= Conforming / 1-3

Assign to ZDHC

MRSL Conformance

Level 1

Assign to ZDHC MRSL

Conformance Level 1, 2 or

# C. ZDHC MRSL Conformance Level Elements

Chemical suppliers can demonstrate conformance of a chemical formulation to the requirements of the ZDHC MRSL by third-parties analytical test or obtaining certification that the formulation meets one of the levels below. (Note: Level 0, self-declaration, is the only level that does not require an independent review of the information by a third-party).

Certification bodies can be evaluated for ZDHC acceptance by providing information supporting appropriate business and management practices, and a description of how their certificate verifies the requirements of one or more conformance levels. This is described in Section D of this document.

It is recognised that these systems are better developed for textiles than leather and trims, however by publishing this guidance the ZDHC Programme is sending a signal to certifiers that there is a gap in this sector and hopes to encourage the development of those systems.

In Table 1 the required elements for each of the MRSL conformance levels are illustrated. The conformance levels are independent of each other. This means that a chemical formulation does not need to first have a certificate at Level 1 to attain a certificate at Level 2.

In the future ZDHC plans to develop a conformance level beyond Level 3. This Level "3+" would include a full review of a formulation (in a confidential business-to-business manner with the certificate provider) and would be intended to encourage continuous improvement and innovation towards safer chemistry and development of such systems. Currently no certification system performs a full recipe formulation and a full Product Stewardship review that includes a site visit as part of their review process.

Table 1. Requirements for Registration and MRSL Conformance Levels

MRSL Conformance Level	Register Chemical Supplier with ZDHC Gateway - Chemical Module	Register Formulation Name and SDS with ZDHC Gateway - Chemical Module	Self- declaration of MRSL Conformity	Test report meeting ZDHC Quality Criteria (Annex A)	Third-party review of documenta- tion against MRSL	Chemical Supplier Product Stewardship Review	Chemical Supplier Site Visit
Registered	Х	Х					
0	Х	Х	Χ				
1	Automatic who			Test report Ol review of doc			
2	certi by ZDHC ac	ified	As required by certification	As required by	Χ	X	,
3			body	certification body	Х	Х	Χ

#### 1. Registration

Registration means that the chemical company has registered its company information with the ZDHC Gateway - Chemical Module and uploaded a copy of the chemical formulation SDS to the Chemical Module of the ZDHC Gateway database.

There is no MRSL conformance expected or implied by registration of the chemical company and SDS with ZDHC.

Registration requirements are as follows:

 The chemical supplier registers with the ZDHC Gateway - Chemical Module.
 This involves registration of the chemical supplier's legal business name, location, and contact information with the ZDHC Gateway - Chemical Module.

The chemical supplier registers
the chemical formulation product
name and SDS with the ZDHC
Gateway - Chemical Module. This
registration includes uploading
relevant information to allow
authorised access to the current
Safety Data Sheet (SDS) applicable
to the country the formulation is
being used in. These should be
prepared according to ANSI Z400.1
(2004), ISO 11014(1), EC 1907/2006
(REACH), EC 2001/58, GHS (Global
Harmonised System), or JIS Z
7250:2005 (Part 1)].

#### 2. Level 0 (Provisional)

ZDHC MRSL Conformance Level 0 is the lowest level of confidence in meeting the ZDHC MRSL requirements. This means there is no review by a ZDHC accepted third-party of the information provided by the chemical supplier. This conformance level is valid for 12 months and must be renewed at a higher level of conformance after that time.

Level 0 conformance requires that a chemical supplier and SDS are registered with the ZDHC Gateway - Chemical Module (see more on this in Section C.1) and that a chemical supplier has submitted a self-declaration of ZDHC MRSL conformity.

The chemical supplier should make available a self-declaration of ZDHC MRSL conformity based on the guidance of ISO/IEC Standard 17050, Parts 1 and 2. Under these standards, self-declarations of conformity are based on the results of an appropriate conformity assessment technique and provide enough information for the recipient of the declaration to understand which conformity assessment claim is being made, including:

- name and address of the issuer
- unique identification
- statement of conformity
- date and place of issue of the declaration

- a signature or equivalent of the authorised person
- any limitations (e.g. geographical)
- a complete and clear list of the specified requirements (e.g. standards) as well as selected options (if relevant)
- identification of the object of conformity (e.g. the product, process, service, management system etc.)

In addition, the issuer should have procedures in place to ensure continued conformity and the issuer should maintain a technical file for each declaration which should contain:

- a description of the object of conformity (product, process, services etc.)
- design documentation
- conformity assessment results, including: methods used (auditing, audit procedures, batch testing, design review, verification and validation, sampling plan, test methods, type testing) and reasons for their selection
- results
- evaluation of the results, including deviations and concessions
- identification and competence records of people and organizations involved in producing and reviewing conformity assessment results.

#### 3. Level 1

MRSL Conformance Level 1 requires a thirdparty review of documentation or an analytical test report where the data meet the Quality Assurance and Quality Control requirements in Annex A to be accepted as evidence of conformance.

The third-party review is accomplished by having a certification for the chemical formulation from ZDHC accepted third-party certifier who has reviewed at least:

- the current Safety Data Sheet (SDS) prepared according to ANSI Z400.1 (2004), ISO 11014(1), EC 1907/2006 (REACH), EC 2001/58, GHS (Global Harmonised System), or JIS Z 7250:2005 (Part 1).
- the self-declaration of ZDHC MRSL conformity based on the guidance of ISO/IEC Standard 17050, Parts 1 and 2.

- any other information (which may include test data) the certifier requires relevant to assuring MRSL conformance and completeness of the SDS and the selfcertification. OR
- Test data following the Quality Assurance and Quality Control requirements of Annex A is required. This testing will be so-called "smart-testing" targeted to chemical substances relevant to the formulation. These test data should meet the requirements of Annex A and be from a certified chemical testing laboratory. Analytical reports will be valid for two years from the date of analysis. Suppliers should be prepared to provide appropriate QC information about the chemical analysis. This may include data on blank samples, spiked samples, calibrations, etc.



#### 4. Level 2

MRSL Conformance Level 2 requires:

- all the elements of MRSL Conformance level 1
- a review of the product stewardship practices (health, safety and environment) of the chemical supplier by the third-party certifier. This may include, but is not limited to:
  - analytical test data
  - evidence that manufacturing is conducted according to ISO (or equivalent) standards for quality management systems or environmental management systems
  - a commitment to the
    Responsible Care© initiative (e.g.
    via direct membership or via
    membershio of a trade
    association committed to the
    initiative)
  - demonstrating that they have appropriate wastewater treatment and waste handling procedures in place
  - a commitment to worker health and safety

#### 5. Level 3

MRSL Conformance Level 3 requires all the elements of MRSL Conformance Level 2 and a site visit to the chemical supplier to evaluate their product stewardship first-hand.

# D. Acceptance of MRSL Conformance Certifying Bodies

The ZDHC Programme will review the management systems and practices of third-parties who want their system to become ZDHC accepted as indicators of conformance. Requirements for these third-parties are described below and are based on ISO 17065. A checklist of the elements is provided in Annex B.

## 1. General Requirements for Certification Body

#### 1.a Responsibility

#### **Legal Structure**

The certification body shall be a legal entity, or a defined part of a legal entity, such that the legal entity can be held legally responsible for all its certification activities.

#### **Certification Agreement**

The certification body shall provide its certification service based on an agreement signed by the applicants. The agreement shall include:

a description of the rights and duties of the applicants offering certified products, including a commitment to comply with the certification, also, implementing appropriate changes when the certification body communicates them.

 a requirement that the applicant makes all necessary arrangements for the certification body to have the right of access to all appropriate facilities, locations, areas, applicants' subcontractors and all relevant documentation and records.

#### **Responsibility for Certification Decisions**

The certification body shall have final responsibility for granting, maintaining, extending, suspending and withdrawing certification.

### 1.b Impartiality, Objectivity and Non-discriminatory

#### **Impartiality**

All certification activities shall be undertaken impartially. The certification body shall not allow commercial, financial or other pressure to compromise impartiality.

To manage impartiality, the certification body shall identify, analyse and document any risks to impartiality and work to minimise these risks. This shall include those risks that arise from its activities, relationships, or from the relationships of its personnel.

#### **Non-discriminatory Conditions**

The certification body shall make its services accessible to all applicants whose activities fall within the scope of its operation. Access to the certification process shall not be conditional upon the size of the client or membership of any association or group, nor the number of certifications already issued. There shall not be undue financial burden (e.g. with regard to the fee structure) or other burdensome conditions imposed on the applicant.

#### 1.c Access to Information

#### **Transparency**

Certification bodies should provide:

- public access to, or disclosure of, certification requirements
- information on procedures for application including the rules and procedures for granting, maintaining, extending or reducing the scope of, for suspending, for withdrawing or for rejecting certification
- the fee structure for its services.
- a description of the rights and duties of applicants, including requirements, restrictions or limitations
- information on procedures for handling general complaints and appeals

#### **Use of Certificates**

The certification body shall exercise control over ownership, use and display of certifi-

cates and any other mechanisms for indicating a product is certified.

The certification body will have a procedure to manage and prevent incorrect references to the certification scheme, or misleading use of certificates, marks or any other mechanism for indicating a chemical product is by that body.

#### 1.d Confidentiality

The certification body shall make adequate arrangements, through legally enforceable commitments, to safeguard the confidentiality of the information obtained during the performance of all certification activities.

#### 1.e Resource

#### Personnel

The certification body shall employ sufficient and competent personnel to perform certification activities. The certification body shall ensure that the personnel have competent knowledge relevant to the application processes of the products in the downstream fields. The certification body shall identify training needs and provide training as necessary on certification scheme requirements.

The certification body shall require personnel involved in the certification process to declare any prior/present association on their own part, or the part of their employer with the applicant seeking certification to which they are assigned to perform certification procedures. The certification body shall use this information to identify risks to impartiality raised by activities of such personnel.

#### **Resource for Evaluation**

When the certification body performs evaluation activities, the resource used should meet relevant requirements. If the certification body outsources any evaluation activities (such as testing, inspection, and auditing), the certification body shall ensure it only outsources to bodies that meet the applicable requirements.

A legally-binding contract should be signed by responsible persons from both sides. The certification body shall take full responsibility for all outsourced activities. The complete process should never be outsourced.

#### **Adequate Facilities and Equipment**

The certification body shall ensure that their testing facility and equipment (internal or external) meet their certification system requirements.

#### 1. f Quality Management System

#### General

The certification body shall establish and maintain a quality management system to impart confidence in its ability to perform certification.

#### **Management System Manual**

The certification body shall establish, document and maintain all applicable procedures in a manual or documents, to ensure uniform and consistent application.

The manual shall contain:

- the policy and objectives
- an organisation chart with a clear indication of authority and responsibilities
- a description of procedures applied by the certification body in the course of performing certification, including granting, maintaining, renewing, extending, suspending and withdrawing of certification
- the procedures for the recruitment, selection, training and assignment of the certification body's personnel
- the policy and procedures for appeal against certification decisions and other complaints
- the policy and procedures for reviewing quality

All personnel involved in certification activities shall have access to the manual and relevant documentation.

#### **Document Control**

The certification body shall establish and maintain procedures to control its documents that relate to its certification functions.

The certification body shall:

- approve documents for adequacy prior to issue
- ensure all relevant documents are up-todate
- control the distribution of all documents to ensure the appropriate documentation is provided to relevant personnel

#### **Operational Control**

The certification body shall establish and maintain operational control procedures to ensure the quality management system is implemented throughout all its activities.

#### **Record Control**

The certification body shall establish and maintain a system of record keeping.

Records include evidence that the certification procedures have been effectively fulfilled including: application forms, evaluation reports, documents relating to granting, renewing, extending, suspending and withdrawing certification.

The system shall ensure the integrity of the process and the confidentiality of the information. Records shall also be kept for a minimum period of five years, or according to local legislation.

#### **Internal Audit**

The certification body shall seek for, and achieve, continuous quality improvement. It shall perform internal audits according to the type, scope and volume of certification performed. The interval between two internal audits has to be determined in a way to fully ensure the objective of quality management is fulfilled.

#### **Management Review**

The certification body shall ensure that the management of the certification body reviews the performance of the quality management system periodically, in order to ensure its continuing suitability, adequacy and effectiveness.

The management review shall give input relating to the internal audit results, feedback from clients and interested parties, follow-up actions from previous reviews, changes that could affect the management system, and, appeals and complaints. The management review shall be able to give output regarding the improvement of the effectiveness of the management system, its processes, and resource needs.

#### 1. g Certification Decision

The certification body retains the authority to make decisions regarding all aspects of certification.

#### 1. h Documentation

The certification body shall provide their applicants with formal certification documentation which clearly indicates the certification status.

The certification document shall include:

- the scope of certification
- the date, name and address of the applicant, and, the name and address of the certification body
- the signature of the responsible person from the certification body

The certification body shall always maintain

up-to-date information on certified products which contain (at minimum) the identification of the product, the version of the ZDHC MRSL the product was assessed against, and identification of the applicant.

These should be provided in a way that allows for data interchange with the ZDHC Gateway - Chemical Module. The identity of certified products shall be made available to related interested parties such as clients of the applicants and ZDHC contributors.

#### 2. Approval Process

### 2.a Application Submission and Contract

The ZDHC Programme or its designee will review and accept new third-party certification bodies. To do this, the certifying body should submit an application and if accepted, the system will be reviewed as described below.

#### 2.b Schedule

The ZDHC Programme or its designee will develop a schedule to review the certification system and send a self-assessment questionnaire to the certifying body.

#### 2. c Self-Assessment and Review

The ZDHC Programme or its designee will review the self-assessment and ask for supporting documentation addressing the requirements shown above in Section C. The certifying body will send any requested documentation to the ZDHC Programme. If needed, the ZDHC Programme may conduct a phone or in-person review of the certifying body.

#### 2. d Findings

After the self-assessment and review, the ZDHC Programme or its designee will discuss any findings with the certifier. Following the correction of any needed actions, the ZDHC Programme or its designee will make a final decision as to whether it will accept and accredit the certifier.

The ZDHC Programme may also grant provisional acceptance of third-party certifiers for a fixed time period.

#### 2. e Decision and Review

In the event the ZDHC Programme declines to grant full or provisional acceptance, the certification body may appeal the decision to an independent appeals board established by the ZDHC Programme.



# E. Annex A - Quality Control Guidance for Analytical Test Data Supporting ZDHC MRSL Conformance

Below are recommended conditions and quality expectations for testing chemical formulations. These will be updated as new information becomes available. Testing is based on a "smart" approach, i.e. not every type of chemical formulation needs to be tested for each MRSL parameter (table 1, chapter C).

Lab certification (e.g. UKAS, HKAS, ISO 17025) is **not** a sufficient guarantee that the laboratory can consistently produce acceptable, quality data.

This guidance is intended to allow for performance-based methodologies for testing. In other words, there may be differences in analytical methods to some extent, however the methods should meet the same quality requirements in Table 2, to allow for comparability while allowing for advancements in analytical techniques.

Table 1. Recommended Tests Per Formulation Type ("smart testing")

CHEMICAL FORMULATION TYPE				SUBST	ANCE (	GROUP	S AND	SUBSTA	ANCES	S MENT	IONED	IN MR	SL			
Use Code	AP & APEO	Chlorobenzenes + Toluenes	Chlorophenols	Carc. Aromatic Amines	Navy BlueDyes	Dye-Carc.Or Equiv.	Dye-Disperse	Flame Retardants	Glycols	Solvents, Halo.	Organotins	PAH	PFC	Phthalates	Heavy Metals (As, Hg, Cd, Pb, CrVI)	Voc
1.1 Auxiliaries and finis	shing ag	ents for	fibres an	d yarns												
1.1.1 Spinning solution additives	Х								(x)							
1.1.2 Spinning additives	Χ								(x)			Х				Х
1.1.3 Spinning bath additives	Х								(x)							
1.1.4 Preparation agents	Х								(x)							
1.1.5 Lubricants	Χ								Χ							
1.1.6 Coning oils, warping and twisting oils	X	•										х				х
1.1.7 Conditioning and stabilizing agents	Х															

X = Substances associated with this formulation type.

<sup>(</sup>x) Substances might occur, additional information necessary to determine whether testing needed.

CHEMICAL FORMULATION TYPE	SUBS	TANCE	GROUP	S AND S	UBSTA	NCES N	IENTIC	NED IN	I MRSL							
Use Code	AP & APEO	Chlorobenzenes + Toluenes	Chlorophenols	Carc. Aromatic Amines	Navy BlueDyes	Dye-Carc.Or Equiv.	Dye-Disp	Flame Retardants	Glycols	Solvents, Halo.	Organotins	РАН	PFC	Phthalates	Heavy Metals (As, Hg, Cd, Pb, CrVI)	VOC
1.2 Pretreatment agents	<u> </u>				L				J		I				I	J
1.2.1 Fibre protecting agents in pretreatment									(x)							
1.2.2 Kierboiling/Scouring auxiliaries															X	
1.2.3 Bleaching auxiliaries															Х	
1.2.4 Mercerising and causticizing auxiliaries															Х	
1.2.5 Carbonizing assistants															Х	
1.2.6 Sizing agents and sizing additives	X				•				(x)							
1.2.7 Desizing agents	Χ				•				(x)			***************************************				
1.2.8 Hydrophilizing agents	Х				•				(x)							
1.2.9 Enzymes																
1.2.10 Sequestering Agents																
1.2.11 Stabilizers																
1.3 Textile auxiliaries for dyeing and	d printing	g														
1.3.1 Dyestuff solubilizing and hydrotropic agents	X								X				,	Х		
1.3.2 Dispersing agents and protective colloids	Х								Х			X				
1.3.3 Dyeing wetting agents, dearation agents	X				•				Х							
1.3.4 Leveling agents	Χ								X							
1.3.5 Carriers	Х								Х			Х		Х		Х
1.3.6 Crease-preventing agents	Х								X							
1.3.7 Dyestuffs protecting agents, boildown protecting agents	X				•				X							
1.3.8 Padding Auxiliaries																
1.3.8.1 Anti-migration agents	Χ				•	····									·	
1.3.8.2 Anti-frosting auxiliaries	Х				•				Х							
1.3.8.3 Products increasing wet-pick-up	Χ				•				X				·····		\$	
1.3.9 Fix accelarators for continuous dyeing and printing	X								X		(x)					

CHEMICAL FORMULATION TYPE	SUBS	TANCE	GROUP	S AND S	UBSTAI	NCES IM	ENTIO	NED IN	MRSL							
Use Code	AP & APEO	Chlorobenzenes + Toluenes	Chlorophenols	Carc. Aromatic Amines	Navy BlueDyes	Dye-Carc.Or Equiv.	Dye-Disp	Flame Retardants	Glycols	Solvents, Halo.	Organotins	РАН	PFC	Phthalates	Heavy Metals (As, Hg, Cd, Pb, CrVI)	Voc
1.3.10 Aftertreatment agents for fastness improvement	X								X				1			
1.3.11 Bonding agent (binders) for pigment dyeing and printing	X								X		X	Х	•	Х	x	X
1.3.12 Printing thickeners	X								X		X	Х		X	X	X
1.3.13 Emulsifiers for gasoline printing (white spirit for oil-water emulsion printing)	X								(x)							
1.3.14 Agents to remove printing thickeners	X								x							
1.3.15 Printing and edge adhesives	X								X		X	Х		X	X	X
1.3.16 Oxidizing agents															Х	
1.3.17 Reducing agents																
1.3.18 Discharging agents and discharging assistants	Х								(x)				•			
1.3.19 Resistant agents	Х								(x)							
1.3.20 Mordants															Х	
1.3.21 Brightening and stripping agents	X			X	X	X	X		X							
1.3.22 Fibre-protective agents in dyeing	Х								X							
1.3.23 pH-regulators, acid and alkali dispensers	X															
1.3.24 Adhesives	X								Х		X	х	•	Х	×	X
1.3.25 PVC-based (Plastisols) Ready to Use Printing Pastes				X									•	Х	×	
1.3.26 Water-based Ready to Use Printing Pastes	X			(X)	(X)	(X)	(X)		X		X			X	X	X
1.3.27 Other Pigment Based Ready to Use Printing Pastes	Χ		X	(X)	(X)	(X)	(X)				X			X	X	X
1.4 Finishing assistants								A				J				
1.4.1 Optical brighteners (fluorescent brighteners)	Х			×	X	X	X		X							
1.4.2 Agents for the improvement of crease and shrink resistance	Х					ò		•	(x)							
1.4.3 Additives for non-creasing and non-shrinking finishes	Х								(x)							
1.4.4 Catalysts for non-creasing and non-shrinking finishes	Х								(x)							

CHEMICAL FORMULATION TYPE	SUBSTA	ANCE GI	ROUPS	AND SUI	BSTANG	CES ME	NTION	ED IN N	IRSL							
Use Code	AP & APEO	Chlorobenzenes + Toluenes	Chlorophenols	Carc. Aromatic Amines	Navy BlueDyes	Dye-Carc,Or Equiv.	Dye-Disp	Flame Retardants	Glycols	Solvents, Halo.	Organotins	РАН	PFC	Phthalates	Heavy Metals (As, Hg, Cd, Pb, CrVI)	Voc
1.4.5 Handle-imparting agents	X															
1.4.5.1 Weighting agents	Х														X	
1.4.5.2 Filling and stiffening agents	Х										Х			X	Х	Х
1.4.5.3 Softening agents	Х								Х		Х					
1.4.6 Anti-electrostatic agent	Х								X							
1.4.7 Water, stain and oil repellents	Х								(x)		Х		Х			
1.4.8 Soil release agents	Х								(x)		Х		Х			
1.4.9 Felting Agents	Х															
1.4.10 Anti-felting agents	Х															
1.4.11 Conditioning agents	Х								(x)							
1.4.12 Lustering agents	Х								(x)							
1.4.13 Delustering agents		X		X								Χ			X	X
1.4.14 Non-slip, ladder-proof and anti-snag agents	Х								Х		X			X		
1.4.15 Flame retardants								X	Х		Х			X	Х	
1.4.16 Anti-microbiotics																
1.4.16.1 Finishing									Х		Х					
1.4.16.2 Storage stability											X					
1.4.17 Agents to protect textiles against damage caused by insects and threads									(x)		X					
1.4.18 Agents and additives to promote bonding of fibres and threads	×								(x)		X	X		X		
1.4.19 Coating agents as well as according additives								(x)	Х		Х	Х	Х	X	Х	X
1.4.20 Laminating agents as well as according additives								(x)	(x)		X		X	X	X	
1.4.21 UV Protection																

CHEMICAL FORMULATION TYPE	SUBSTA	ANCE GI	ROUPS	AND SU	BSTANG	CES ME	NTION	IED IN N	IRSL							
Use Code	AP & APEO	Chlorobenzenes + Toluenes	Chlorophenols	Carc. Aromatic Amines	Navy BlueDyes	Dye-Carc.Or Equiv.	Dye-Disp	Flame Retardants	Glycols	Solvents, Halo.	Organotins	PAH	PFC	Phthalates	Heavy Metals (As, Hg, Cd, Pb, CrVI)	VOC
1.5 Technical auxiliaries for mu	ltipurpos	e use in	the text	ile indus	stry				J		l	J			J	
1.5.1 Wetting agents	X								Х							
1.5.2 Anti-foaming agents (foam inhibitors)	Х								X			X				X
1.5.3 Detergents, dispersing and emulsifying agents	X								x							
1.5.4 Spotting agents	Х								X							
1.5.5 Chelating agents	Х															
1.5.6 Stabilizers	Х								(x)							
1.6. Other Auxiliaries		7								D						
1.6.1 Dry Cleaning Detergents																
1.6.2 Prespotting Agents																
1.6.6 Defoaming Agents for solvent application																
1.6.7 Resin Permanent																
1.6.8 Resin Thermoplastic																
1.6.9 Resin Thermosetting									·							h
1.6.10 Soaping																
1.6.11 Other Auxiliaries	no spe	cific gu	idance	- the te	st dep	ends o	n the	produc	t type	) }	J		J		I	

CHEMICAL FORMULATION TYPE	SUBST	ANCE GI	ROUPS	AND SU	BSTAN	CES ME		ED IN M	/IRSL							
Use Code	AP & APEO	Chlorobenzenes + Toluenes	Chlorophenols	Carc. Aromatic Amines	Navy BlueDyes	Dye-Carc.Or Equiv.	Dye-Disp	Flame Retardants	Glycols	Solvents, Halo.	Organotins	РАН	PFC	Phthalates	Heavy Metals (As, Hg, Cd, Pb, CrVI)	VOC
1.7 Dyes and pigments	di												l			
1.7.1 Pigments				Х											X	Х
1.7.2 Reactive dye	Х		X	Х											X	
1.7.3 Sulfur dye	Х	Х	X	Х								Х			X	
1.7.4 Mordant dye	X		X	Х											X	
1.7.5 Direct dye	х		X	Х		X									x	
1.7.6 Disperse dye	Х	Х	Х	Х		X	x					Х			Х	
1.7.7 Basic dye (cationic dye)	х		X	Х		X						Х			x	
1.7.8 Acid dye	Х		X	X		X									X	
1.7.9 Metal complex dyes (for WO / PA)	X		X	×											X	
1.7.10 Vat dye	Х	Х	X	Х								Х			Х	
8. Anciliaries											4	decomment				
1.8.1 Cleaning/Maintenance Products				no spec	ific gu	idance	- the	test de	pends	on the	e prod	duct t	ype			
1.8.2 Other Anciliares				no spec	ific gu	idance	- the	test de	pends	on the	e proc	duct ty	ype			

X = Substances associated with this formulation type.

(x) Substances might occur, additional information necessary to determine whether testing needed.

**Table 2. Recommended Quality Assurance Criteria for Chemical Testing** 

Parameters	QC Type	Frequency	Control Limits	Corrective Action
General		al method speci		pecified below must be adhered to. nd Quality Control elements and criteria nust be adhered to.
	Method blank	1/batch	All target compounds below project reporting limit	Check system, re-analyse affected samples
	Surrogates	Every sample	Method specific	Re-extract if SS fails low. Review, re-analyse based on technical judgment if SS fails high.
	Internal Standards	Every sample	50%-150% of the response of the midpoint of the ICAL	Re-prepare and re-analyse sample to verify ISTD spiked properly. If low recovery verified, flag results with remarks.
	Laboratory Control Standard (LCS)	1/batch	Method specific	Re-extract all samples associated with failing LCS unless LCS fails high and the sample has no analyte detected.
Organics	Calibration Check (CC)	1/batch	±25% for all reported analytes or the method specified criteria, whichever is tighter	Assess system for problems, fix and/or recalibrate. Re-analyze all samples associated with a failing QC. If the matrix is confirmed as the cause of the failure after a re-analysis, flag results with remarks.
	Duplicate (DUP)	1/batch	RPD <35% or method specified limits, whichever is tighter.	Flag results with remarks.
	Matrix Spike, Matrix Spike Duplicate (MS/MSD)	1/batch/matrix	Method specific	Flag results with remarks.
	Method Detection Limit (MDL)	Annually. Quarterly confirmation by LOD ok.	<1/2 the reporting limit for all analytes.	Check system, re-prepare and re-analyse MDL study.
	Multi-point Calibration	5 points minimum, run annually (at a minimum) or as needed. Do not include origin.	Method specific.	Check system. Check standards. Repair. Recalibrate.

**Table 3. Recommended Analytical Methods and Reporting Limits** 

CAS No.	Analyte / Substance	Method Reference	Reporting Limit	Analytical Technique
	Alkylphenol (AP) and Alkyl	phenol Ethoxylates (AP	EOs): including all isomer	S
104-40-5 11066-49-2 25154-52-3 84852-15-3	Nonylphenol (NP), mixed isomers	(Textile) GB/T 23972-2009 (Leather)	250 ppm	(HPLC) LC-MS GC-MS
140-66-9 1806-26-4 27193-28-8	Octylphenol (OP), mixed isomers	EN ISO 18219-1 EN ISO 18219-2	250 ppm	
9002-93-1 9036-19-5 68987-90-6	Octylphenol ethoxylates (OPEO)		500 ppm	
9016-45-9 26027-38-3 37205-87-1 68412-54-4 127087-87-0	Nonylphenol ethoxylates (NPEO		500 ppm	
	Chloro	benzenes and Chloroto	luenes	
95-50-1	1,2-dichlorobenzene		1000 ppm	
penta- and hexa- Cl	mono-, di-, tri-, tetra-, nlorobenzene and mono-, d penta- chlorotoluene		Sum = 200 ppm	GC-MS
		Chlorophenols		
25167-83-3	Tetrachlorophenol (TeCP)		Sum = 20 ppm	
87-86-5	Pentachlorophenol (PCP)		20.11 Z3 PP.11	
4901-51-3	2,3,4,5-tetrachloro- phenol			
58-90-2	2,3,4,6-tetrachloro- phenol	(Textile)		
935-95-5	2,3,5,6-tetrachloro- phenol	GB/T 18414.1 GB/T 18414.2		
95-57-8	2-chlorophenol	GB/T 24166 (Leather)		GC-MS
120-83-2	2,4-dichlorophenol	EN ISO 17070	Sum = 50 ppm	
583-78-8	2,5-dichlorophenol			
87-65-0	2,6-dichlorophenol			

CAS No.	Analyte / Substance	Method Reference	Reporting Limit	Analytical Technique	
88-06-2	2,4,6-trichlorophenol	(Textile) GB/T 18414.1 GB/T 18414.2 GB/T 24166 (Leather) EN ISO 17070	Sum = 20 ppm		
591-35-5	3,5-dichlorophenol				
576-24-9	2,3-dichlorophenol				
95-77-2	3,4-dichlorophenol			GC-MS	
108-43-0	3-chlorophenol		Sum = 50 ppm		
106-48-9	4-chlorophenol				
15950-66-0	2,3,4-trichlorophenol				
933-78-8	2,3,5-trichlorophenol				
609-19-8	3,4,5-trichlorophenol				



CAS No.	Analyte / Substance	Method Reference	Reporting Limit	Analytical Technique
	Dyes – Azo	o (Forming Restricted Ar	nines)	
101-14-4	4,4-methy- lene-bis-(2-chloro-ani- line)		150 ppm	
101-77-9	4,4-methylenedianiline		150 ppm	
101-80-4	4,4-oxydianiline		150 ppm	
106-47-8	4-chloroaniline		150 ppm	
119-90-4	3,3-dimethoxylbenzi- dine		150 ppm	
119-93-7	3,3-dimethylbenzidine		150 ppm	
120-71-8	6-methoxy-m-toluidine		150 ppm	
137-17-7	2,4,5-trimethylaniline		150 ppm	
139-65-1	4,4-thiodianiline	Textile) SN/T 1045.1 SN/T 1045.2 SN/T 1045.3  (60-09-3) GB/T 23344 GB/T 24101  (Leather)	150 ppm	
60-09-3	4-aminoazobenzene		150 ppm	
615-05-4	4-methoxy-m-phenyl- enediamine		150 ppm	LC-MS GC-MS
838-88-0	4,4-methylenedi-o-tolu- idine		150 ppm	
87-62-7	2,6-xylidine	EN ISO 17234-1 EN ISO 17234-2	150 ppm	
90-04-0	o-anisidine		150 ppm	
91-59-8	2-naphthylamine		150 ppm	
91-94-1	3,3-dichlorobenzidine		150 ppm	
92-67-1	4-aminodiphenyl		150 ppm	
92-87-5	Benzidine		150 ppm	
95-53-4	o-toluidine		150 ppm	
95-68-1	2,4-xylidine		150 ppm	
95-69-2	4-chloro-o-toluidine		150 ppm	
95-80-7	4-methyl-m-phenylene- diamine		150 ppm	
97-56-3	o-aminoazotoluene		150 ppm	
99-55-8	5-nitro-o-toluidine		150 ppm	

CAS No.	Analyte / Substance	Method Reference	Reporting Limit	Analytical Technique
	Dyes -	- Navy Blue Colourant		i
118685-33-9	Component 1: C39H23Cl- CrN7O12S 2Na		250 ppm	LC
Not Allocated	Component 2: C46H- 30CrN10O20S2 3Na		250 ppm	
	Dyes – Carcin	ogenic or Equivalent Co	ncern	<u>i</u>
1937-37-7	4,4-oxydianiline		250 ppm	
2602-46-2	4-chloroaniline		250 ppm	
3761-53-3	3,3-dimethoxylbenzidine		250 ppm	
569-61-9	3,3-dimethylbenzidine		250 ppm	
573-58-0	6-methoxy-m-toluidine		250 ppm	
632-99-5	2,4,5-trimethylaniline	(Textile)	250 ppm	
2475-45-8	4,4-thiodianiline	GB/T 20382	250 ppm	
2475-46-9	4-aminoazobenzene	SN/T 3227	250 ppm	LC
2580-56-5	4-methoxy-m-phenylenedi- amine	(Leather) GB/T 30399	250 ppm	
569-64-2	4,4-methylenedi-o-tolui- dine		250 ppm	
2437-29-8	2,6-xylidine		250 ppm	
10309-95-2	o-anisidine		250 ppm	
82-28-0	2-naphthylamine		250 ppm	
	Dyes -	Disperse (Sensitising)		
119-15-3	Disperse Yellow 1		250 ppm	
12222-97-8	Disperse Blue 102		250 ppm	
12223-01-7	Disperse Blue 106		250 ppm	
12236-29-2	Disperse Yellow 39		250 ppm	
13301-61-6	Disperse Orange 37/59/76	(Textile) GB/T 20383	250 ppm	
23355-64-8	Disperse Brown 1	(Leather)	250 ppm	LC
2581-69-3	Disperse Orange 1	GB/T 30398	250 ppm	
2832-40-8	Disperse Yellow 3		250 ppm	
2872-48-2	Disperse Red 11		250 ppm	
2872-52-8	Disperse Red 1		250 ppm	
3179-89-3	Disperse Red 17		250 ppm	

CAS No.	Analyte / Substance	Method Reference	Reporting Limit	Analytical Technique
	Dyes	- Navy Blue Colourant		i
3179-90-6	Disperse Blue 7		250 ppm	
3860-63-7	Disperse Blue 26		250 ppm	
54824-37-2	Disperse Yellow 49		250 ppm	
12222-75-2	Disperse Blue 35		250 ppm	
61951-51-7	Disperse Blue 124	<u></u>	250 ppm	
6373-73-5	Disperse Yellow 9		250 ppm	
730-40-5	Disperse Orange 3		250 ppm	
56524-77-7	Disperse Blue 35		250 ppm	
	F	at liquoring agents		
85535-84-8	Short-chain Chlorinated paraffin (C10'– C13)	(Leather) EN ISO 18219	250 ppm	GC/ECNI-MS
	4	Flame Retardants		
115-96-8	Tris(2-chloroethyl) phosphate (TCEP)		250 ppm	
1163-19-5	Decabromodiphenyl ether (DecaBDE)		250 ppm	
126-72-7	Tris(2,3,-dibromopro- pyl)-phosphate (TRIS)		250 ppm	
32534-81-9	Pentabromodiphenyl ether (PentaBDE)		250 ppm	
32536-52-0	Octabromodiphenyl ether (OctaBDE)		250 ppm	
5412-25-9	Bis(2,3-dibromopropyl) phosphate (BIS)		250 ppm	
545-55-1	Tris(1-aziridinyl)phosphine oxide) (TEPA)	(Textile) GB/T 29493.1-2013	250 ppm	GC-MS
59536-65-1	Polybromobiphenyls (PBB)		250 ppm	
79-94-7	Tetrabromobisphenol A (TBBPA)		250 ppm	
3194-55-6	Hexabromocyclodecane (HBCDD)		250 ppm	
3296-90-0	2,2-bis(bromometh- yl)-1,3-propanediol (BBMP)		250 ppm	
13674-87-8	Tris(1,3-dichloro-isopropyl) phosphate (TDCP)		250 ppm	
85535-84-8	Short-chain chlorinated Paraffins (SCCP) (C108C13)		(textiles) 50 ppm (leather) 250 ppm	

CAS No.	Analyte / Substance	Method Reference	Reporting Limit	Analytical Technique
	Gl	ycols / Glycol Ethers	ii.	
111-96-6	Bis(2-methoxyethyl)-ether		50 ppm	
110-80-5	2-ethoxyethanol		50 ppm	
111-15-9	2-ethoxyethyl acetate		50 ppm	
110-71-4	Ethylene glycol dimethyl ether		50 ppm	
109-86-4	2-methoxyethanol		50 ppm	
110-49-6	2-methoxyethylacetate		50 ppm	
70657-70-4	2-methoxypropylacetate		50 ppm	
112-49-2	Triethylene glycol dimethyl ether		250 ppm	
	H	alogenated Solvents	······································	
107-06-2	1,2-dichloroethane		5 ppm	
75-09-2	Methylene chloride		5 ppm	GC-MS
79-01-6	Trichloroethylene		40 ppm	GC-MS
127-18-4	Tetrachloroethylene		5 pmm	
	Polycyclic A	romatic Hydrocarbons (F	PAHs)	
50-32-8	Benzo[a]pyrene (BaP)		20 pmm	
120-12-7	Anthracene			
129-00-0	Pyrene			
191-24-2	Benzo[ghi]perylene			
192-97-2	Benzo[e]pyrene			
193-39-5	Indeno[1,2,3-cd]pyrene			
205-82-3	Benzo[j]fluoranthene		(textile) Sum = 200 ppm  (leather) Sum = 200 ppm Naphthalene = 300 ppm	
205-99-2	Benzo[b]fluoranthene			
206-44-0	Fluoranthene	(Textile) GB/T 29493,4-2013		GC-MS
207-08-9	Benzo[k]fluoranthene	GB, 1 20 1001 1 2010		
208-96-8	Acenaphthylene			
218-01-9	Chrysene			
53-70-3	Dibenz[a,h]anthracene			
56-55-3	Benzo[a]anthracene			
83-32-9	Acenaphthene			
85-01-8	Phenanthrene			
86-73-7	Fluorene			
91-20-3	Naphthalene			

CAS No.	Analyte / Substance	Method Reference	Reporting Limit	Analytical Technique
	Perfluorinated an	nd Polyfluorinated Chemica	als (PFCs)	
Multiple	Perfluorooctane sulfonate (PFOS) and related	(Textile) GB/T 29493.2-2013	Sum = 2 ppm	
substances	Perfluorooctanoic acid (PFOA) and related substances		Sum = 2 ppm	LC- MS
	Phthalates – includir	ng all other esters of ortho	-phthalic acid	
117-81-7	Di(ethylhexyl) phthalate (DEHP)			GC-MS
117-82-8	Bis(2-methoxyethyl) phthalate (DMEP)			
117-84-0	Di-n-octyl phthalate (DNOP)			
26761-40-0	Di-iso-decyl phthalate (DIDP)			
28553-12-0	Di-isononyl phthalate (DINP)			
84-75-3	Di-n-hexyl phthalate (DnHP)			
84-74-2	Dibutyl phthalate (DBP)	(Textile) GB/T 24168-2009	Sum = 250 ppm	
85-68-7	Butyl benzyl phthalate (BBP)	GB/T 24168-2009	250 ррш	
84-76-4	Dinonyl phthalate (DNP)			
84-66-2	Diethyl phthalate (DEP)			
131-16-8	Di-n-propyl phthalate (DPRP)			
84-69-5	Di-isobutyl phthalate (DIBP)			
84-61-7	Di-cyclohexyl phthalate (DCHP)			
27554-26-3	Di-iso-octyl phthalate (DIOP)			
		Total Heavy Metals		
7440-38-2	Arsenic (As)		50 ppm	
7440-43-9	Cadmium (Cd)	(Textile) GB/T 17593.2	20 ppm (50 ppm for pigments)	
7439-97-6	Mercury (Hg)	(Leather) EN ISO 17075	4 ppm (25 ppm for pigments)	
7439-92-1	Lead (Pb)		100 ppm	
18540-29-9	Chromium (VI)		10 ppm	

CAS No.	Analyte / Substance	Method Reference	Reporting Limit	Analytical Technique
		Organic Compounds (VO	C)	
71-43-2	Benzene		50 ppm	
1330-20-7	Xylene		500 ppm	
95-48-7	o-cresol		500 ppm	GC-MS
106-44-5	p-cresol		500 ppm	
108-39-4	m-cresol		500 ppm	

# F. Annex B - Types of Documentation Expected to be Reviewed for Acceptance Process

#	Documentation	
1	Statement of qualifications and expertise	
2	Organisational chart	
3	CVs for key personnel	
4	Certification process	
5	Accreditations, certifications and licenses	
6	Laboratory certifications (if applicable)	
7	Quality assurance practices , e.g. internal audit process and corrective action process	
8	Example certification	
9	Complaints records	
10	Additional documents as requested to support the review	



### **G.** Glossary

**Accreditation:** Accreditation is the formal recognition by an independent body, generally known as an accreditation body, that a certification body operates according to international standards.

Certification: Certification means that a certified formulation has written assurance, such as a certificate, from an independent body confirming that the product in question meets specific requirements. ZDHC MRSL certification confirms conformance with the ZDHC MRSL without additional testing.

Chemical formulation: A chemical formulation is a mixture of chemical substances blended together to be used by the manufacturer. A formulation is the finished chemical product in a container, ready for use.

Chemical product: A chemical product consists of chemicals' manufactured as substances or formulations applied onto textile, leather, synthetic leather, and other materials used in the apparel, leather and footwear industry.

Chemical substance: A chemical substance is a chemical element and its compounds in the natural state or obtained by any manufacturing process. A chemical substance is usually identifiable by a single,

unique Chemical Abstracts Service (CAS) number or Color Index (CI) number.

Chemical supplier: A chemical supplier is the company providing chemical products to the industry's material suppliers such as dye houses, tanneries, etc. A chemical supplier can be a manufacturer, a formulator or re-brander of chemical products.

**Conformity assessment:** Conformity assessment means that specified requirements relating to a product, process, system, person or body are fulfilled.

**High risk:** In the context of the ZDHC MRSL conformance, high risk means that there is limited assurance that a formulation will comply with the ZDHC MRSL. A chemical company's formulation exhibits high potential for non-compliance.

Low risk: In the context of the ZDHC MRSL conformance, low risk means there is a high level of assurance that a formulation will comply with the ZDHC MRSL. A chemical company's formulation exhibits high potential of compliance.

Registered: In the context of the ZDHC MRSL conformance, registered means that a chemical company has registered their name, location, and product trade name in the Chemical Module of the ZDHC Gateway.

Registration is not self-declaration; it only identifies the product.

**Self-declaration:** Self-declaration is when a formulation manufacturer declares that its formulation is compliant with the ZDHC MRSL, on the basis of its own internal product stewardship procedures.

**Technical Data Sheet:** A technical data sheet describes how the product is to be used by the mill including information such as the amount to use per process, etc.

**Third-party testing:** In third-party testing, chemical formulation samples are tested by an accredited independent laboratory.

**Unintentional contamination:** Unintentional Contamination means chemical substances that are a result of side-reactions or contamination that are not intentionally added to chemical formulations.

ZDHC Gateway - Chemical Module: The ZDHC Gateway - Chemical Module is the database the ZDHC Programme is developing that will be a comprehensive list of chemical products and an MRSL conformance assessment for each. It will map products against existing chemical accreditation such as bluesign, GOTS or OEKO-Tex EcoPassport, and provide textile manufacturers with documentation to determine the level that a chemical product conforms with the ZDHC MRSL.

**ZDHC MRSL:** The ZDHC MRSL (Manufacturing Restricted Substances List) is a list of chemical substances subject to a usage restriction. The MRSL applies to chemicals used in facilities that process materials and trim parts for use in textile, leather and footwear.

ZDHC MRSL Conformance: ZDHC MRSL Conformance means that the chemical formulation does not contain any of the chemical substances on the ZDHC MRSL above the ZDHC MRSL threshold commercial formulation limit values.

**ZDHC MRSL Conformance Levels:** ZDHC MRSL Conformance Levels means the levels of conformance as specified in section 2.b of this document

ZDHC Accepted Third-party or ZDHC
Accepted Third-party reviewer: A ZDHC
accepted third-party or ZDHC accepted
third-party reviewer is an independent certification body that is accepted by ZDHC as
an indicator of ZDHC MRSL Conformance.

ZDHC Accepted Third-party Certifier or Third-party Certification Bodies: A ZDHC accepted third-party certifier or third-party certification body is an independent certification body that is accepted by ZDHC as an indicator of ZDHC MRSL Conformance.

#### **ZDHC Accepted for MRSL Conformance:**

ZDHC accepted for MRSL conformance means an independent certification body that is accepted by ZDHC as an indicator of ZDHC MRSL Conformance.

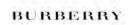
**ZDHC Contributors:** ZDHC Contributors are the current list of contributors to the ZDHC Programme as found on the ZDHC website www.roadmaptozero.com

**ZDHC MRSL Advisory Group:** The ZDHC MRSL advisory group is an independent outside experts advising the ZDHC MRSL Focus Area.

© 2017 Stichting ZDHC Foundation. All Rights Reserved.

### **Signatory Brands**













GapInc. G-STARRAW #M HUGO





























#### Value Chain Affiliates



























































### **Associates**



























