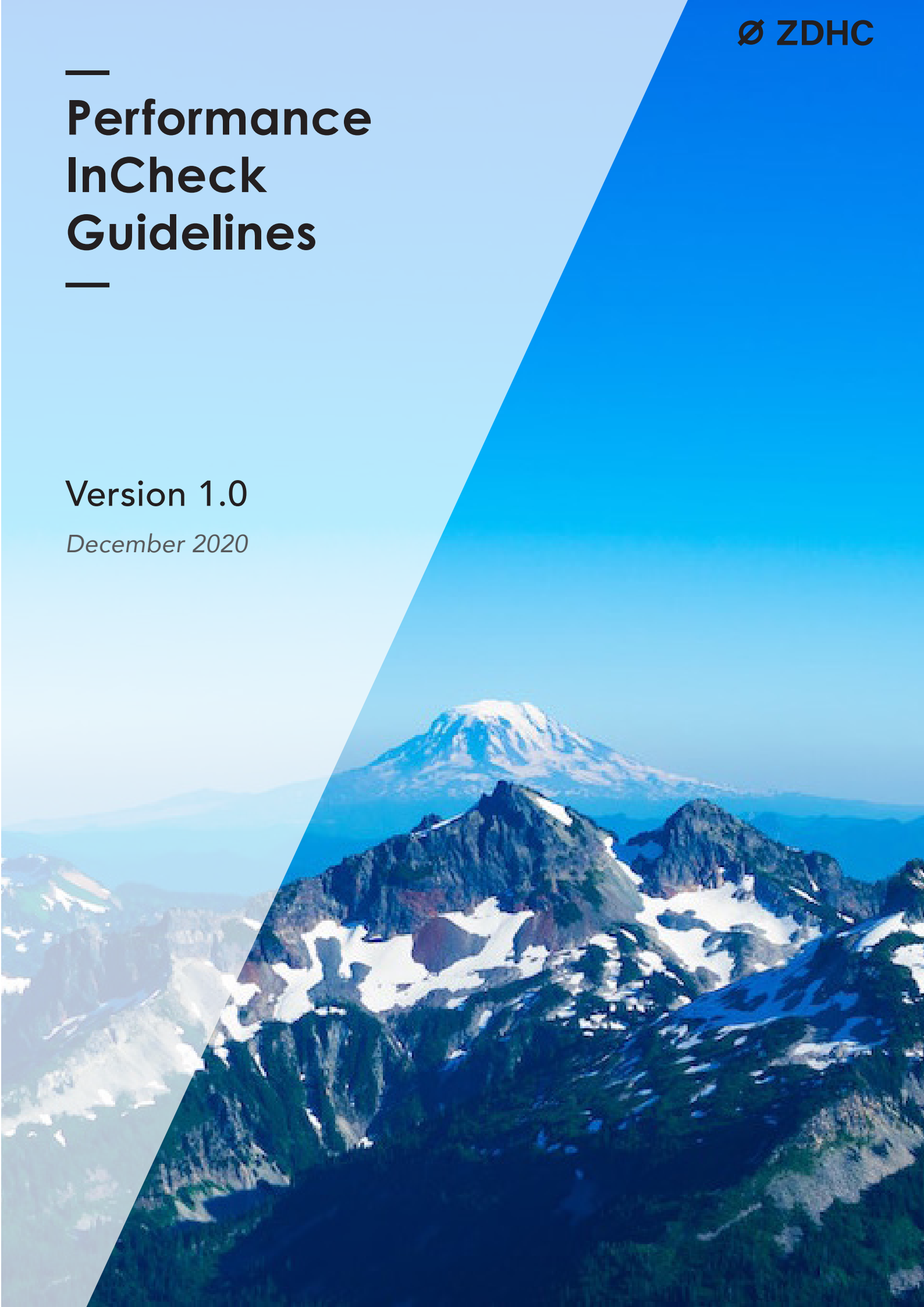Ø ZDHC

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Performance InCheck Guidelines

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Version 1.0

December 2020

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The Performance InCheck Guideline standardises the requirements for the generation of a Performance InCheck Report by Suppliers, to help reference the listing of their chemical products in the ZDHC Gateway database, at their respective ZDHC MRSL Conformance Levels.

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About ZDHC

The ZDHC Foundation oversees implementation of the Roadmap to Zero Programme and is a global industry collaboration of brands, value chain affiliates, and associates within the sports, fashion, luxury and outdoor industry.

Its vision is widespread implementation of sustainable chemistry, driving innovation and best practices in the textile, apparel, leather and footwear industries to protect consumers, workers and the environment. Through collaborative engagement, standard setting and large-scale implementation ZDHC advances the industry towards zero discharge of hazardous chemicals.

ZDHC takes a holistic approach to sustainable chemical management and enables tangible progress in the wider industry through a number of reference guides, practical tools, capacity building and innovation projects. More information about ZDHC at www.roadmaptozero.com.

Contents

Introduction

The ZDHC Roadmap to Zero created a paradigm change in the approach to chemical management in the textiles industry, by shifting the focus from output management (product conformance) to input management (eliminating hazardous substances at the entry stage at a Supplier). This is based on the premise that cleaner inputs, in combination with the right process controls, will lead to cleaner outputs.

The ZDHC InCheck solution helps a Supplier to establish transparency in its efforts for better management of its chemical inventory towards sustainable chemistry. In other words, with the ZDHC InCheck solution, a Supplier can demonstrate it purchases and uses chemical products that minimises risk to human health, improve worker safety, and limit the impact on the environment.

The Performance InCheck Guideline provides all the necessary information for Suppliers and other interested stakeholders to learn about the ZDHC InCheck solution and - specifically - how to work with the Performance InCheck Report.

It starts by explaining how the ZDHC InCheck fits within the wider ZDHC holistic approach of standards and solutions in Chapter 1. In Chapter 2, the objective of the Performance InCheck Report is explained in more detail, as well as its relation with the Verified InCheck Report[1]. In Chapter 3, the process of how to generate Performance InCheck reports is explained. Chapter 4 provides guidance for Suppliers to work on improving its chemical inventory, based on the results of the Performance InCheck Report.

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[1] The Verified InCheck Report is under development and expected to be published in 2021

1. The ZDHC InCheck solution within the ZDHC holistic approach

To understand how the ZDHC InCheck solution helps a Supplier on its journey to more sustainable chemistry, this chapter discusses its relation to other important standards and solutions within the ZDHC holistic approach:

- The ZDHC Manufacturing Restricted Substances List (MRSL)
- The ZDHC Chemical Management System (CMS) Framework
- The ZDHC Gateway - Chemical Module

1.1 ZDHC Manufacturing Restricted Substances List

The backbone of the ZDHC holistic approach is the ZDHC Manufacturing Restricted Substances List or ZDHC MRSL, which is a list of chemical substances banned from intentional use in facilities.

The ZDHC MRSL Conformance Guidance and the MRSL Conformance Pyramid explain how a Supplier can assure that chemical products do not intentionally use banned chemical substances.

1.2 ZDHC Gateway - Chemical Module

The ZDHC Gateway - Chemical Module is a database of chemical products which displays the ZDHC MRSL Conformance Levels of those chemical products. It enables Suppliers to cross check their chemical products and find substitutions with higher Conformance Levels.

1.3 ZDHC Chemical Management System Framework

The ZDHC Chemical Management System Framework explains ZDHC's minimum requirements with regard to policies, procedures and systems for a Supplier's chemical management system.

Amongst other things, the ZDHC CMS Framework explains the necessity for a Supplier to maintain a Chemical Inventory List (CIL):

- A CIL is a list of all chemical products stored or used in the facility, in processes and tooling/operations.

1.4 The ZDHC InCheck Solution

The ZDHC InCheck solution provides an easy to understand overview of the ZDHC MRSL Conformance Levels of the chemical products in a Supplier's chemical inventory. By checking the chemical products in its chemical inventory with the chemical products registered in the ZDHC Gateway - Chemical Module, a Supplier gets a better understanding of its overall performance and insight in points for improvement.

2. The Performance InCheck Report

The ZDHC InCheck solution is an important cornerstone of the ZDHC Roadmap to Zero Programme implementation process. To facilitate a Supplier's journey towards safer chemical management, the InCheck solution has been split into two: (A) Performance InCheck Report and (B) Verified InCheck Report.

This Chapter contains:

- A detailed explanation of the objectives of - and the data and information presented in - the Performance InCheck Report.
- A reference to the Verified InCheck Report and its relation with the Performance InCheck Report.[2]

2.1 The objective of the Performance InCheck Report

The objective of a Performance InCheck Report is to:

- Understand the status of the chemical products in a Supplier's chemical inventory for registration on the ZDHC Gateway - Chemical Module and certifications against ZDHC MRSL.
- Plan actions to improve upon 1) the number of chemical products published on the ZDHC Gateway as well as 2) their ZDHC MRSL Conformance Levels.

The Performance InCheck Report is based on the chemical inventory data as recorded in a Supplier's chemical inventory. It is important to note that inventory details uploaded are not verified or validated through a third-party.

The Performance InCheck Report should thus primarily be used as a tool by Suppliers for internal monitoring of the chemical products in the chemical inventory for ZDHC MRSL Conformance Levels and should motivate them to make improvements.

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[2] A separate Guideline document for the Verified InCheck Report is under preparation and will be published by ZDHC in 2021.

While the Performance InCheck Report may be used by a Supplier to demonstrate the ZDHC MRSL Conformance Levels of chemical products in its chemical inventory to interested stakeholders, it should be noted that this is self-assessed. Given it is without external verification, the Performance InCheck Report should not be used to grade Suppliers for ZDHC MRSL implementation of inventory. Instead it is used to evaluate individual products registration on the ZDHC Gateway - Chemical Module and certifications against ZDHC MRSL.

2.2 The information and data in the Performance InCheck Report
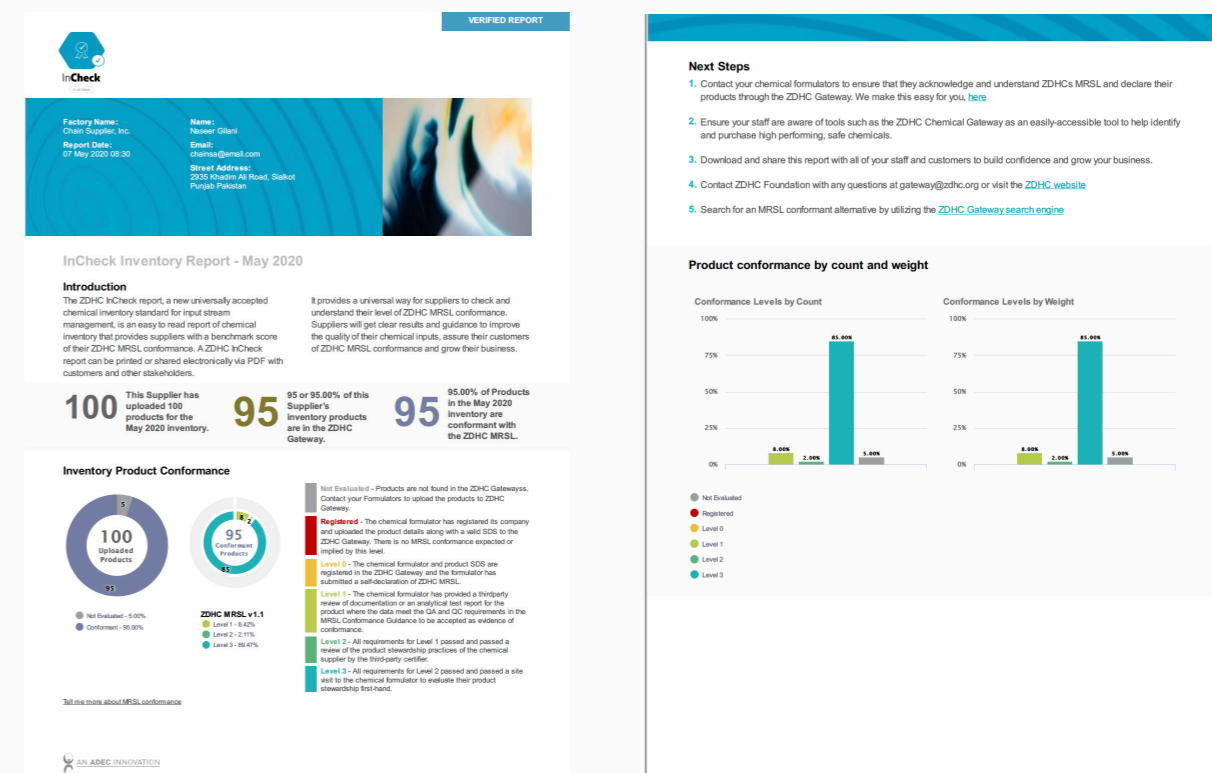

Figure 01: Performance InCheck Report template

The Performance InCheck Report is a document that numerically and graphically summarises:

- The number of chemical products uploaded by the Supplier as its inventory for the month.
- The number and percentage of chemical products from this inventory that are listed in the ZDHC Gateway.

- The ZDHC MRSL Conformance Levels of these products that are listed in the ZDHC Gateway.

The InCheck Report also provides high-level next steps for the Supplier on actions to be taken for improving the ZDHC MRSL Conformance of its chemical inventory. A graphical representation (in the form of a bar chart) of the product conformance by count and by weight is also provided as a quick snapshot.

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2.3 The Verified InCheck Report

To communicate a credible and trusted status of its input chemical management for ZDHC MRSL Conformance, a Supplier can generate a Verified InCheck Report. This requires that the Supplier's chemical inventory is validated by a ZDHC-approved third- or second-party Verifier through a site visit to the Supplier.

The objective of a Verified InCheck Report is to:
- Establish a credible and verified InCheck Report of a Supplier's chemical inventory conformance to the ZDHC MRSL levels through listing of the chemical products in the ZDHC Gateway
- Establish transparency and credibility with its external stakeholders.

This validated inventory is uploaded on the ZDHC Gateway by the Verifier. The Verified InCheck Report should thus be used for communicating a transparent and credible input chemical inventory management for ZDHC MRSL by a Supplier.

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2.4 Relation between Performance InCheck and Verified InCheck Report

It is recommended that a Supplier should generate Performance InCheck Reports over a sufficient period of time before generating a Verified InCheck Report.

Performance InCheck   Verified InCheck
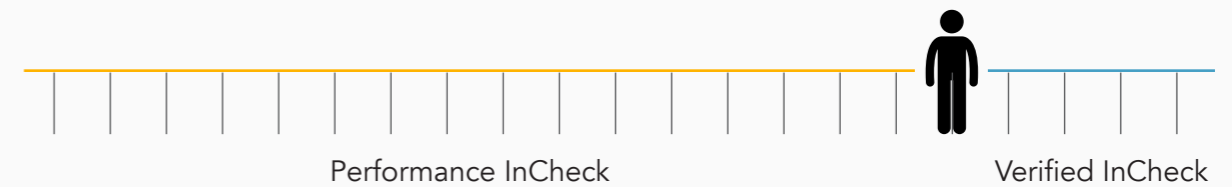
The Performance InCheck is thus the tool for a Supplier to continuously measure and improve its input chemical inventory performance with respect to the ZDHC MRSL Conformance Levels, based on which the Verified InCheck Report exercise can be completed to communicate a credible status on its chemical inventory to its stakeholders.

The Verified InCheck Report is created to establish a deeper level of trust on the implementation of ZDHC MRSL Conformance for the chemical inventory at a Supplier - in line with ZDHC's principle of 'trust but verify'.

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3. Generating the Performance InCheck Report

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This Chapter provides:
- Practical guidance for a Supplier to generate a Performance InCheck Report.
- Important information a Supplier needs to complete the Performance InCheck exercise and leverage its full potential.

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3.1 Generating the Performance InCheck Report

Importantly, ZDHC leverages the services of third-party service providers to help Suppliers in the process of generating the Performance InCheck Report. A full list of Approved Solution Providers can be found at the website of the ZDHC Implementation HUB.

1. Supplier creates ZDHC Gateway account (via invitation link)

2. Supplier selects Solution Provider on Implementation HUB website*

7. Performance InCheck Report data availability is flagged on Supplier account (visible to Brands)**

3. Supplier creates an account on Solution Provider Tool and selects InCheck option (if required by Solution Provider)

6. Performance InCheck Report (pdf & xls data) is stored in ZDHC Gateway Supplier account

4. Supplier uploads chemical inventory on Solution Provider tool

5. Performance InCheck Report is delivered via Solution Provider tool to Supplier

*Supplier can skip this step if it already has an account with the selected Approved Solution Provider

** Performance InCheck data can only be downloaded by brands if there is an active connection with the Supplier on the Gateway

Figure 02: Process of generation of Performance InCheck Report

Figure 02 provides an overview of the different steps within the process. Below remarks provide further clarification. For first time users:

1. Registration to the ZDHC Gateway is required to create a Supplier account. After logging in to its ZDHC Gateway account a Supplier can navigate to the Performance InCheck tab on the menu on the left. There, a link to the Implementation HUB is presented.

2. On the Implementation HUB website an overview of the Approved Solution Providers can be found. The Supplier can select its preferred Solution Provider by

clicking the link to create an account.

3. After the Supplier has created an account it should enable the Performance InCheck option within the Approved Solution Provider platform to proceed with InCheck generation.

Registering on the ZDHC Gateway and the Approved Solution Provider platform is required. Subsequently - and for any repeat exercises - the Supplier can:

1. Login to its preferred Approved Solution Provider's platform[3] and follow the required steps

2. Upload its latest chemical inventory to this platform

3. Generate the Performance InCheck Report.

As shown in Figure 02, the (data from the) Performance InCheck Report is automatically linked back to the ZDHC Gateway, where it can be found in the Supplier's account (in PDF and Excel formats).

3.2 Type of inventory

There are different ways to track and record the number of chemical products in a Supplier's chemical inventory. For the purpose of generating a Performance InCheck there are two ways to track the Chemical Inventory; Delivery and Usage.

3.2.1 Delivery type

A Supplier may choose to upload 'Delivery' type to generate the Performance InCheck Report. This is represented by a Supplier's purchases for the past month. It is assumed that the chemical products purchased or delivered are used in the manufacturing facility over a period of time. Delivery type inventory establishes transparency for the chemical inventory at a Supplier.

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[3] The Accepted Solution Provider will provide a supplier with more detailed instructions.

The advantages of using Delivery type are that it is easier for a Supplier to obtain records and it starts the process of continuous improvement. Furthermore, it supports Chemical Management goals by maintaining the basics of a Chemical Inventory List.

3.2.2 Usage type

Usage type is defined as the amount of chemical used or consumed during the reporting month. A Performance InCheck Report should always reflect consumption levels of the previous month. This should reflect the *actual* quantity consumed in the Supplier's facility. A simple method to arrive at Usage quantity is by the formula:

> Usage quantity = (Amount of the chemical product in stock at the start of the month
> + amount of chemical product delivered in that month)
> – amount of chemical product in stock at the end of that month.

Example
If there is stock of (say) 500 kgs of a softener on 1 August and during that month another 200 kgs were received by the Supplier and 450 kgs of the chemical product were left in stock at the end of August, then:
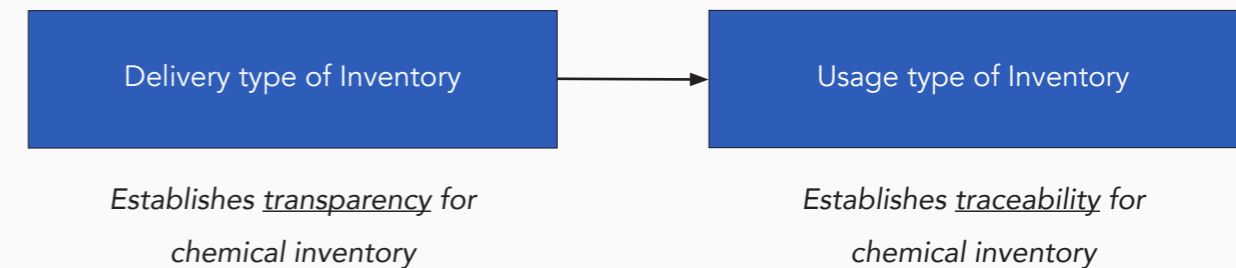
USAGE QUANTITY in August = (500 kg + 200 kg) – 450 kg = 250 kg

The advantage of using Usage type inventory is it supports root cause analysis for non-conformities in outputs such as wastewater, sludge, air and product. Furthermore it will allow Suppliers to start using Load-based calculations for output streams, which is an advanced method of monitoring environmental impact.

As best practice, determination of Usage quantity should be automatic and completed every month by the Stores or Purchase Department at the Supplier. In any event, the quantities recorded should be included in the Gateway Chemical Inventory, which can then be uploaded in the chosen Approved Solution Providers' platform for generation of the Performance InCheck.

3.2.3 From Delivery type to Usage type

A Supplier can start with Delivery type inventory for its Performance InCheck exercise and move to Usage type inventory once proper systems to calculate the monthly consumption levels are in place. This also helps a Supplier move from having transparency of its chemical inventory, to traceability.

Delivery type of Inventory	→	Usage type of Inventory
Establishes <u>transparency</u> for chemical inventory		*Establishes <u>traceability</u> for chemical inventory*

3.3 Rules for uploading the chemical inventory

There are a couple of important rules regarding the upload of the chemical inventory to the Approved Solution Provider platform.

Rule 1: Include all the correct and required information from the CIL
While the full CIL is required to comply with the requirements of the ZDHC CMS Framework to ensure safe handling of chemicals in the facility, not all information is required for the generation of the Performance InCheck Report.

The following columns[4] in the ZDHC CIL format are required to be fully completed for inventory upload:
1. Name of the Chemical Product (in English)
2. Formulator name (In English)
3. The volume (Usage or Delivery type)
4. The unit (in which the volume is measured)

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[4] The ZDHC CIL format indicates the respective columns that are required to be completed for the generation of the Performance InCheck. All required columns are to be found in the Foundational level CIL.

Rule 2: Include all required chemical products in the inventory upload

To have a complete overview of a Supplier's chemical inventory ZDHC MRSL Conformance Levels, it is important to include all chemical products used at the facility. However, chemical products not directly applied or used in production processes[5] are not yet registered on the ZDHC Gateway. Neither are commodity chemicals[6]. Thus, it is currently difficult for a Supplier to demonstrate conformance to the ZDHC MRSL for these products.

Since these chemical products form an important part of the chemical inventory for most Suppliers, ZDHC is currently developing a strategy to include them in the scope of the ZDHC Gateway. There is a transition period until such a time as this strategy has been fully implemented during which the type of chemical products mentioned in figure 3 are excluded from the Performance InCheck exercise. There is as yet no defined deadline for this transition period.

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[5]   Such as sanitation, maintenance and laboratory chemicals

[6]   Commodity chemicals are single substances or chemical compounds whose chemical structure is well-known, and their use is to create conditions for a process (such as acid, alkaline, oxidizing, reducing, solubilizing conditions). They are produced in high volumes with low price and do not have a brand name but are known by their common chemical names (for example Acetic Acid). The chemical structure and purity of two commodity chemicals produced by different manufacturers can be the same and can be interchangeable. They are generally sold on technical specifications (such as purity) and are not designed for a unique/special property or effect nor require any scientific research in their development. Usually, commodity chemicals either get reacted in the process (for example Sodium Hydroxide or Sodium Hydrosulphite) or remain in the effluent after the process (for example Common Salt or Glauber's Salt used in reactive dyeing of cotton)

Type of chemical product	Included in ZDHC MRSL scope	Included for Performance InCheck Report (only during transition period)
All Dyes, Pigments and Inks directly applied in process	Yes	Yes
Functional finishes (such as antimicrobials, flames retardants, OWR)	Yes	Yes
Printing thickeners and binders	Yes	Yes
Commodity Chemicals	Yes	No
Chemicals used in wastewater/ effluent treatment process (except commodity chemicals)	Yes	Yes
Chemicals used in engraving, developing and washing of printing screens	Yes	No
Sizing chemicals used for in-house warping or weaving	Yes	Yes
Weaving or Knitting oils	Yes	Yes
Beamhouse, wet-end and finishing auxiliaries for leather production	Yes	Yes
Dyestuffs and Pigments used in wet-end and finishing for leather production	Yes	Yes
Printing inks and auxiliaries used for printed leathers production	Yes	Yes
Adhesives and rubbers used in footwear and leather-goods production	Yes	Yes
Paints & chemicals used for building repairs	No	No
Chemicals used in Quality Control laboratory tests	Yes	No
Utility chemicals used for machinery maintenance (such as lubricants, grease)	Yes	No
Pest control chemicals	Yes	No
Floor cleaning/sanitation detergents	Yes	No

Figure 03: Type of chemical products included in scope of MRSL and Performance InCheck

Rule 3: Ensure correct Chemical Product name and Chemical Formulator name in CIL

To achieve maximum results, it is important to check the correct name and spelling of the chemical products of a Supplier's chemical inventory before uploading it to the Approved Solution Provider platform. This can be done by checking the:

    a.   Invoice

    b.   Label on the chemical container

    c.   Product Name mentioned in Section 1 of the SDS (wherever available)

    d.   Formulator Name

Only the name of the Formulator should be entered in the inventory format – and not that of the trader/agent/distributor supplying the product for commercial transactional purposes on behalf of the Formulator. If the information on the SDS and physical label do not match, then a Supplier should confirm the correct chemical product name with the chemical supplier.

3.4 Frequency of updating the Performance InCheck Report

Suppliers who have started on the journey of generating Performance InCheck Reports should do this exercise <u>once a month</u>.

As a Supplier reaches a high level of the listing of its chemical products in the ZDHC Gateway for ZDHC MRSL Conformance the frequency of generating the Performance InCheck Report may be one of the following:

- On demand - to align with Brand requirements
- Once or twice a year, subsequent to the Verified InCheck Report exercise and completion of corrective actions at the Supplier to improve ZDHC MRSL Conformance of the verified inventory

4. Actions for improvement

This chapter contains:

- Further guidance about what a Supplier can do to improve its performance over time.

4.1 (Corrective) Actions based on the Performance InCheck Report

After generating a first Performance InCheck Report, a Supplier may conclude improvements are required. Two distinct situations may occur.

Firstly, a Supplier may conclude that a substantial share of the chemical products in its inventory are not registered in the ZDHC Gateway. In such a case, the Supplier can do the following:

    a.   Incorporate a Chemical Procurement Policy that ensures the Supplier purchases and uses only those chemical products that are listed in the ZDHC Gateway - Chemical Module at least at ZDHC MRSL level 1 conformance.

    b.   Contact its current Chemical Formulators whose chemical products are not listed on the ZDHC Gateway and ensure that they understand and acknowledge the ZDHC MRSL to make efforts to register and list their chemical products on the ZDHC Gateway.

    c.   Send "Invites" through the Supplier's ZDHC Gateway account to chemical Formulators who have not registered on the ZDHC Gateway and follow up with them for their registration and product uploads with relevant ZDHC approved third-party certifications.

Secondly, a Supplier may conclude it is not yet satisfied with the ZDHC MRSL Conformance Levels of the chemical products in its inventory. In such a case, the Supplier can use the ZDHC Gateway - Chemical Model to 'search' for alternatives that are at higher ZDHC MRSL Conformance Levels and which can meet the current quality and performance criteria. The search can be done by browsing the product name, formulator name, substrate type or by certification type.

Once the Supplier is confident it has reached a high performance of ZDHC MRSL Conformance for its chemical inventory, it can start to prepare for the Verified InCheck Report exercise.

4.2 Checking ZDHC MRSL Conformance for unlisted chemical products

While all efforts may be made by a Supplier to achieve a maximum level of ZDHC MRSL Conformance in the Performance InCheck Report, some chemical products may not be listed in the ZDHC Gateway or may, for various reasons, not be visible to the Supplier in the profiles of formulators.

Some general actions that can be undertaken by the Supplier in this regard are:

a. Request any of the ZDHC approved third-party certifications from the Formulator, and request registration by the Formulator on the ZDHC Gateway

b. Check if any of the CAS numbers of hazardous ingredients declared in Section 3 of the Safety Data Sheet (SDS) of such chemical products are listed in the ZDHC MRSL by using the e-version of the ZDHC MRSL on the ZDHC website https://mrsl.roadmaptozero.com/MRSL2_0

c. Conduct training of Formulators on ZDHC MRSL and ZDHC Gateway