SUPPLIER HANDBOOK CHEMICAL MANAGEMENT

Version 4.0 I July 2020

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1] Introduction

WHAT IS DETOX?

The **Greenpeace Detox campaign** challenges top brands to make amends by working with their suppliers to eliminate all hazardous chemicals across their entire supply chain. Tchibo has publicly committed itself to eliminate a priority list of hazardous chemicals from textile supply chains until 2020 and to gain transparency over the use and discharge of chemicals. The goal is to protect water resources and improve environmental and human health both at work and in surrounding communities.

DID YOU KNOW?

20%

of industrial water pollution comes from textile dyeing and finishing! (World Bank)

This massive water pollution has been the origin of the Greenpeace Detox Campaign. In order to drive change, Greenpeace appeals to the responsibility of international textile brands and demands a commitment to eliminate hazardous chemicals!

View I Download: Tchibo Detox Commitment 2014

View I Download: Tchibo Detox Progress Report 2019

ZDHC Membership

Tchibo believes that only collective action can transform an industry. In 2018, Tchibo became a signatory brand member of the 'Zero Discharge Hazardous Chemicals' Initiative (ZDHC). We see a number of opportunities in this alliance: firstly, it allows for an industry-wide agreement on a minimum level of engagement in the supply chains.

ZDHC CONTRIBUTOR

About ZDHC

The ZDHC Foundation oversees implementation of the Roadmap to Zero Programme and is a global industry collaboration of currently **150 contributors** (30 brands, over 100 value chain affiliates, and 19 associates). The vision is wide-spread implementation of sustainable chemistry, driving innovations and best practices in the textile, apparel, leather and footwear industries. Through collaborative engagement, standard setting and large-scale implementation ZDHC advances the industry towards zero discharge of hazardous chemicals.

Find more information on
https://www.roadmaptozero.com/

These **11 priority chemical groups** are used extensively in the textile industry and in the focus of the Greenpeace Detox Campaign. Once released, many of them accumulate in the environment, which means they are defined as persistent. Some substances are bioaccumulative, meaning they can accumulate in the blood, organs and tissues of living organisms and damage health. Also most of them are toxic and harm living organisms. That is why these chemicals should be avoided.

	Substance Group	Occurrence in product/ process
1	**Alkylphenolethoxylates (AP and APEO)**	Pigment printing, washing and scouring (e.g.pre-treatment, Anti backstaining of denim, greasy wool), Coatings, Silk treatment (de-gumming)
2	**Per- and polyfluorinated chemicals (PFCs)**	Water- and/or dirt- and/or grease-repellant finished products
3	**Phthalates**	Flexible plastic components (e.g., PVC), Print pastes, Adhesives, Plastic buttons, Plastic sleevings, Polymeric coatings
4	**Brominated and chlorinated flame retardants**	Flame retardant finishing
5	**Cleavable aryl amines from Azo dyes**	Dyeing and printing of all other fibres, PU-materials
6	**Organotin compounds**	Odour blocking/ anti-bacterial finishing, textile printing, finishing and coating, plastics/rubber, metallic glitter, polyurethane products and heat transfer material (transfer prints label)
7	**Chlorobenzenes**	Polyester or wool/polyester fibres (dyeing), rubber carpet back, shoe polish, glue, lacquer
8	**Chlorinated solvents**	Spot cleaning agent in manufacturing, solvent, degreasing or cleaning operations (leather/ textile/ fur/ rubber/ plastic, printing, Finishing)
9	**Chlorophenols**	Preservatives or pesticides for growing cotton and when storing/transporting fabrics (anti-mold/ insect). Preservative in print pastes.
10	**Short chain Chloroparaffines (SCCP)**	Plastiziser in plastics, fat liquoring of leather and fur, flame retardants
11	**Heavy metals**	Leather tanninng, wool/silk/ PA dyeing, Textile prints, colours and paints (e.g. surface paints on zippers and buttons), synthetic materials

This handbook will support to improve your chemical management system - Put Detox into practice!

✓ Think out of the box and be open for new ideas and new ways to manage new challenges

✓ Consider that your efforts help to safe the health of workers and consumers and to protect the environment

✓ Recognize that compliance with MRSL is essential for established and extended business relationships

✓ Read this handbook carefully and follow the indicated recommendations

✓ Use the included links for further or more detailed information and screen additional guidelines, best practices etc.

✓ Get in contact with Tchibo in case of any unsolved issues or in case of needed assistance

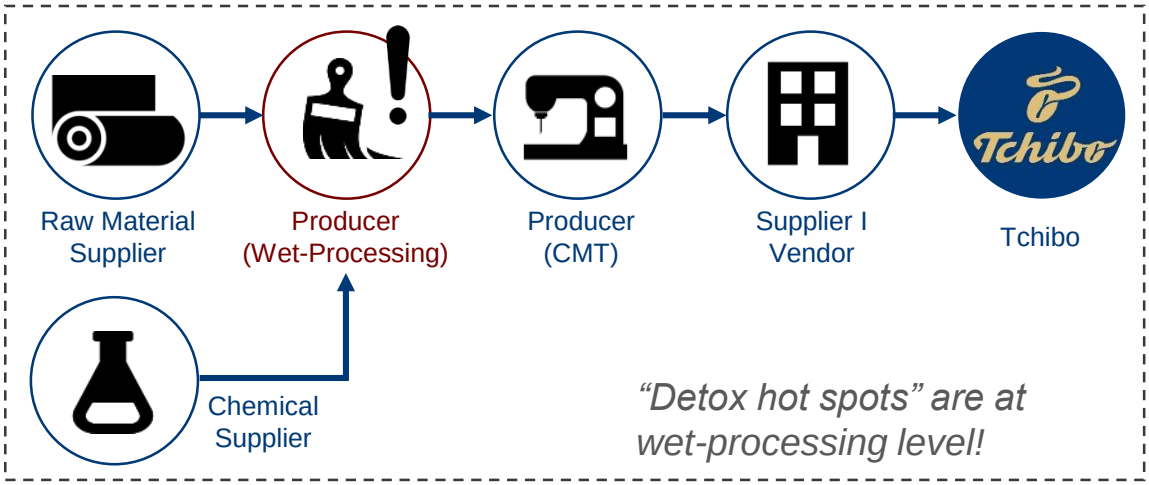
Please share this handbook with all your business partners, especially with all the ones conducting wet processes!

2] Tchibo Requirements

Transparency I Supply Chain Disclosure

WHY DO WE NEED TRANSPARENCY?

The Detox commitment includes transparency on the use and discharge of all hazardous chemicals with textile production. The chemical-intensive process steps usually take place in the deeper supply chain at wet-processing level. That is why full transparency of all suppliers and production processes is the basis to take action and improve chemical management.



TCHIBO REQUIRES…..

1. **Information on all wet-processing units (WPU)** that are involved in the production of Tchibo products including name, address, contact information and process steps
2. A valid **waste water test** for each wet-processing unit *(see page 19 for further details)*
3. **Upload** of the waste water test to ZDHC Gateway Platform *(see page 20 for further details)*

By Tchibo joining the ZDHC, all WPUs producing for Tchibo will get **free access** to ZDHC Gateway. The platfom includes two modules:

ZDHC Gateway™

Wastewater Module
a global online platform to register and share verified wastewater test data for the entire textile industry

Chemical Module
an advanced search engine for formulations that are conforming to ZDHC's MRSL

RSL I MRSL Compliance

For the implementation of the Detox requirements throughout the supply chains, Tchibo has updated and refined its product and production standards:

RSL – Restricted Substances List

RSL contains chemicals which are either completely prohibited or restricted above certain threshold levels **in final products!**

MRSL – Manufacturing Restricted Substances List

MRSL contains chemicals which are either completely prohibited or are restricted above certain threshold levels **in production processes!**

Hazardous substances endanger the health of workers and consumers and have harmful environmental effects.

- ➔ Both lists provide an overview of substances that must not be used or detected or which must be within the defined limits.
- ➔ In case a Restricted Substance has been detected, it has to be replaced in production or need to be strictly controlled in chemical preparations, processes and on the final product.
- ➔ Every actor who is involved in the production of products for Tchibo needs to be informed about the RSL/MRSL and is responsible to safeguard compliance with the requirements of RSL/MRSL.

INDUSTRIE STANDARDS

The ZDHC MRSL is considered as the industry benchmark for restricted substances in textile and leather chemicals. While we have been using and developing our own MRSL for years, the industry has made considerable progress as well, agreeing on a high standard that is by now comparable to our own. As a member of the ZDHC Initiative, we want to support this important joint industry approach. That's why we have replaced our own MRSL with the ZDHC MRSL 2.0 in 2020.

ZDHC Zero Discharge of Hazardous Chemicals

View I Download: ZDHC MRSL 2.0

HOW TO READ THE ZDHC MRSL 2.0?

Chemicals that are under discussion of being included in the ZDHC MRSL.
MRSL Candidate List: Proposed MRSL additions meeting listing criteria, yet lacking safer alternatives at scale. Including them on the Candidate List encourages innovation of alternatives.
MRSL Archived List: Substances without strong evidence of current use in industry but with clear evidence of historical use.

Detailed information on the substance regarding use, reasons for restriction and safer alternatives.

Concentration limits for chemical formulations.
Exceedance of this limit indicates intentional use of the substance and non-conformance with the MRSL.

Methods for waste water and sludge analysis including detection limits are listed in the ZDHC Waste Water Guidelines.

Compliance with foundational limits defined in ZDHC waste water guidelines is a first step towards zero discharge of hazardous chemicals. (https://www.roadmaptozero.com/output)

In case residues of priority substances have been detected in discharges or products, a root
cause analysis must be initiated to find the source of the contamination. Based on the results, measures shall be defined to eliminate the priority substances from the production.

View I Download: Tchibo MRSL Implementation Guidance

HOW TO ENSURE MRSL COMPLIANCE?

INTERNAL COMMUNICATION FLOW

☑ ***Inform all involved departments*** *of your company (e.g. procurement, quality assurance, colour lab, production etc.)* ***about the RSL/MRSL*** *requirements*

☑ ***Establish a communication flow*** *which ensures that all departments/ responsible persons are* ***informed and updated about RSL/MRSL requirements***

EXTERNAL COMMUNICATION FLOW

☑ ***Communicate the Tchibo RSL/ ZDHC MRSL*** *to material and chemical suppliers as well as commission units and ask for recognition and confirmation of adherence*

☑ ***Develop communication procedures with Tchibo*** *regarding Detox cases such as: Restricted Substance(s) have been identified, product specifications cannot be realized, limits cannot be achieved.*

CHEMICAL SOURCING ACCORDING TO MRSL

☑ *Only use and purchase chemicals that are compliant with MRSL requirements.* **Evaluate data** from SDS to ensure ZDHC MRSL compliance.

☑ Ask your chemical suppliers for **supporting secondary documents to proof conformity** with the ZDHC MRSL. These documents comprise

- ✓ test reports
- ✓ certificates or
- ✓ at least declarations (stating the chemical main component, CAS number, presence and quantity of substances mentioned in the Tchibo RSL/MRSL for each chemical preparation, which is indicated with full trade name)

Letter of Confirmation

This is to confirm that the following chemical product:

NAME OF THE CHEMICAL

qualifies for the dyeing, printing and finishing of textiles in compliance with the ZDHC MRSL V2.0 and that it is properly applied according to the technical recommendations.

Company name
Signature

☑ **Implement testing procedures** to close data lacks and **avoid the usage** of chemical preparations **with insufficient data**

☑ **Use ZDHC Gateway Chemical Module which** allows to check and share chemical product conformance information. Chemical inventory conformance towards ZDHC MRSL can be verified by an InCheck Report

ZDHC Gateway™

Documentation (Inventory I SDS)

Maintaining an inventory of the chemicals used and stored in factories is necessary in order to keep track. There are two kinds of inventories:

Material Inventory List
is a list of all materials and semi-finished components used and stored on-site with relevant information concerning their risks and components.

Chemical Inventory List
is a list of all chemicals and chemical mixtures used and stored on-site with relevant information concerning their risks and components

A **chemical inventory** is the core element of a functional chemical management system, which can help you to identify and organize all chemical related issues in your production, from the calculation of chemical consumption to the verification of client's and legal requirements for restricted hazardous substances on final products. WHAT TO DO?

STEP 1: **Set up an inventory of the chemicals used and stored in the factory.** The inventory list shall at least contain the following information:

- Trade name of chemical product
- Supplier name
- Manufacturer name
- Classification: Substance or mixture
- Chemical composition (main ingredient)
- CAS number
- C.I. No for colourants
- SDS availability
- Norm of SDS
- GHS classification
- Field of application in production
- Annual consumption
- Physical form of the chemical product
- Available toxicological data

To complete an inventory list you have to **collect documents** from the chemical producer such as Safety Data Sheets (SDS), producer declarations, test reports etc. ☑

STEP 2: **Update the inventory continuously**

- ✓ Add new chemicals
- ✓ Remove expired and obsolete chemicals from the inventory

☑

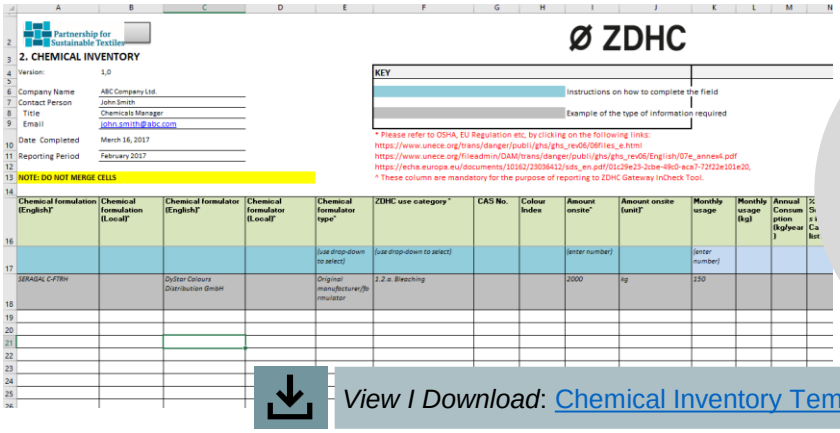
STEP 3: **USE ZDHC GATEWAY CHEMICAL MODULE**

- ✓ Use the ZDHC Gateway Chemical Module and generate the ZDHC InCheck Report which provides a benchmark score of ZDHC MRSL conformance based on inventory and provides clear results and guidance to improve the quality of chemical inputs

☑

Documentation (Inventory I SDS)

Tchibo supports the use of the chemical **inventory template** provided by ZDHC and other members of the Partnership for Sustainable Textiles:



If you already have **inventory lists** in place, **check them on completeness** by comparison with the inventory list template and integrate additional columns which are missing on your list!

View I Download: Chemical Inventory Template

------*GUIDANCE FOR INVENTORY COMPLETION AND EVALUATION* ------

Chemical formulation (English)^	Chemical formulation (Local)^	Chemical formulator (English)^	Chemical formulator (Local)^	Chemical formulator type^
Commercial name of the single chemical product/ mixture under which it is sold to your company		*Indicate the name of the producer/ manufacturer of the chemical product. List name and contact details*		*Chose whether the formulator is the original manufacturer, agent, distributer, etc.*

ZDHC use category ^	CAS No.	Colour Index	Amount onsite^	Amount onsite (unit)^
Indicate for which function the chemical/ mixture is used in your process e.g. printing, bleaching, softener, etc.	*CAS and CI. No. allow a clear identification of the chemical substances.* ***! You can find the information in the safety data sheet (SDS) chapter 3 !***		*List the amount stored onsite and the related measurement unit*	

Monthly usage	Monthly usage (kg/month)	Annual consumption (kg/year)	% mass of Substances in SVHC list?	Do you have an MSDS/ SDS?
List the monthly consumption in kg (on average)		*List the annual consumption in kg (on average)*	*SVHC = Substance of very High Concern according to REACH*	*Indicate if safety data sheet is available by "yes" or "no"*

Documentation (Inventory I SDS)

Compliant with latest version of ZDHC MRSL??	Support document for ZDHC MRSL finding	Certifications	Expiry dates of certifications	MSDS/ SDS issue date
Indicate whether the chemical is compliant with ZDHC MRSL by "yes" or "no"	*e.g. GOTS certification*	*e.g. GOTS letter of approval, OEKO-TEX Eco Passport, Bluesign Certif.*	*mm.dd.yyyy*	*mm.dd.yyyy*

Hazard Statement (H)	Precautionary Statement (P)	GHS Classification *= Globally Harmonized System of Classification and Labeling of Chemicals*	Use of PPE	Biological degradation/ elimination in %
H-Statement** describes the nature and degree of the hazard of the chemical. **P-Statement** describes recommended measures to prevent adverse effects resulting from exposure. **! You can find the information in the safety data sheet (SDS) chapter 3 !		*List GHS classification **according to SDS, chapter 2***	*Provide information of suitable types of PPE e.g. "Wear protection gloves"*	*Add OECD norm and results ! **You can find the information in the safety data sheet (SDS) chapter 12 !***

COD	BOD5	Permanent halogen organic compounds in %	Acute aquatic toxicity	Heavy metal in %
Environmental indicators according to SDS, chapter 12 *COD = chemical oxygen demand I BOD = biological oxygen demand*				

Storage condition requirement	Place of storage/ building/ room	Delivery amount	Delivery amount (unit)	Delivery date
Outline conditions for safe storage, including any incompatibilities	*Indicate where the chemical is stored exactly*	*List the delivery amount and the related measurement unit*		*mm.dd.yyyy*

Delivery invoice reference	Chemical tests performed	Dates of chemical tests	Chemical test results against MRSL requirem.	Chemical testing laboratory
List the invoice number for each delivery	*Indicate whether any chemical tests are conducted by the chemical supplier or your company*	*mm.dd.yyyy* *Indicate the date mentioned on the test report*	*Indicate if presence arise from a failed test against Tchibo's MRSL*	*List name and contact details of the testing laboratory*

Details on compliance with Brand RSLs	Disposal of chemical	Comments
Indicate whether the chemical is compliant with Tchibo RSL by "yes" or "no"	*Indicate disposal information **according to SDS, chapter 13***	*Add further comments/ remarks*

Documentation (Inventory I SDS)

Safety Data Sheets (SDS) include information about the properties of the substance or mixture, its hazards and instructions for handling, disposal and transport and also first-aid, fire-fighting and exposure control measures. The format and content of the safety data sheets are specified in REACH.

A safety data sheet must be provided in local language to downstream users for:

- A substance or mixture that is classified as hazardous according to CLP (Classification, Labelling and Packaging Regulation (EC) No 1272/2008).
- A substance that is persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB), or
- A substance that is included in the Candidate List of substances of very high concern (SVHCs)

SDS contains the description of the data used to identify the hazards of a chemical/ mixture

SDS should always be provided by chemical supplier. If an SDS is not included, contact your chemical supplier and request this document!!

Archive all SDS for at least 24 months!

The original SDS provided by chemical supplier follows a 16 section format which is inter-nationally agreed:

1. Identification of substance
2. Hazards identification
3. Composition/ ingredients
4. First Aid measures
5. Fire-fighting measures
6. Accidental release measures
7. Handling and storage
8. Personal Protective Equipment
9. Physical/ chemical properties
10. Stability and reactivity
11. Toxicological information
12. Ecological information
13. Disposal considerations
14. Transport information
15. Regulatory information
16. Other information

ENSURE GOOD CHEMICAL MANAGEMENT HOUSEKEEPING

☐ All **chemicals** are **stored safely** in accordance with the safety data sheet (SDS) and **good housekeeping** is ensured

Guidelines for chemical storage

For safe storage the following requirements should be fulfilled:

- ✓ Proper and clean containers to avoid contamination
- ✓ No storage of chemicals in drinking bottles!!
- ✓ A flat and impermeable floor to prevent contamination of soil e.g. epoxy floors
- ✓ Secondary containment/ no storage of chemicals directly on floor (proper protection in case of spills)
- ✓ Emergency drains (connected to the effluent treatment plant)
- ✓ No exposure to rain if containers are stored outside
- ✓ Stable shelves incl. proper protection from dropping e.g. by borders at shelves
- ✓ No storage of chemicals over head
- ✓ Written instructions, that drinking, eating and smoking is strictly forbidden in storage area
- ✓ Appropriate fire extinguishers and smoke detectors
- ✓ Clean and clear ways, marked emergency exits
- ✓ Air extraction equipment for exhaust air purification
- ✓ Eyewash stations

☐ **Incompatible chemicals are stored separately** to avoid poisonous gas or fires

Chemicals that may react with each other should be stored remotely from each other. Safety data sheets (SDS) provide specific information on chemical compatibility!

Housekeeping I Processes

☐ **Personal Protective Equipment** and first aid facilities are available and in good working order. **Emergency exits** are clearly marked and free of obstacles at any time!

Dust Mask

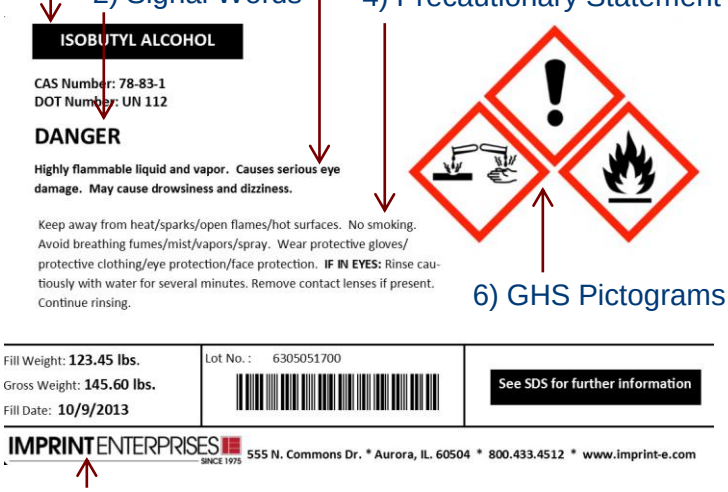
Only for dust

Air Purifying Respirator

For chemicals

☐ **All chemical containers** are labelled according to GHS label requirements

GHS = **G**lobally **H**armonized **S**ystem of Classification and Labelling of Chemicals



☐ **Cautionary and warning signs** are available and clearly visible

☐ **Abstract SDS** in local language are displayed at all relevant workplaces as well as storage areas

Shape	Meaning	Example
	Prohibition	
	Warning	
	Mandatory action	
	Escape route Safe condition Escape equipment	
	Fire fighting equipment	

ENSURE GOOD CHEMICAL MANAGEMENT PROCESSES

RESPONSIBILITIES AND COMMUNICATION

Person(s) in your company is (are) appointed to be responsible for Detox management and Detox communication.

- Identify and define **tasks and duties for Detox management** in your company
- Find out which **departments** have to be **involved** in your company
- Define the **required qualifications** which are essential to perform the tasks
- **Appoint responsible person(s**) who is/are responsible for Detox topics
- Provide **adequate training** for the responsible person in case of need
- **Inform** other departments/persons **about the responsibilities**
- Identify and define **interfaces** and areas of interaction between responsible person(s) and departments
- Provide **management attention and support** to the responsible persons

WORKER TRAINING

Person(s) in your company is (are) regularly trained and informed on Detox/ chemical management practices

- **Determine training demands** for different departments/persons involved in RSL/MRSL management
- **Identify the initial and individual knowledge** level of the responsible persons
- **Establish training courses and routines** based on detected training demand (e.g. awareness building measures for employees and department involved, training on Detox topics and management for the responsible person(s))
- Based on the training content and the availability of respective knowledge within your company, **conduct** internal trainings or **trainings** by external experts
- **Check continuously** if training content is understood
- In case of new or up-dated requirements or in case new employees shall be trained, **adopt training curricula** accordingly
- **Ensure that knowledge** is not person related and **available centrally in the company**

Waste Water Testing

WHO?

All wet-processing units that are involved in the production of Tchibo products need to provide a valid waste water test. All WPUs must register with the ZDHC Gateway Wastewater Portal and commission their wastewater test through the platform. Upload of wastewater tests to ZDHC Gateway is mandatory for all tests commissioned after 1st March 2019.

WHAT?

Tchibo is entirely aligned with the ZDHC industry standard in terms of testing requirements:

Test Scope:

According to ZDHC Wastewater Guideline Version 1.1

Sampling Date:

Not older than 1 year (sample date)

Accepted Laboratories:

Please refer to the list of ZDHC Provisionally Accepted Labs.

What is the ZDHC Gateway?

The ZDHC Gateway – Wastewater Module is a global online platform that is designed to share verified wastewater and sludge test data based on testing against the ZDHC Wastewater Guidelines, which are already the basis for Tchibo's standard wastewater tests.

All data uploaded to the Gateway tool is tested against the same standard and provides reliable, comparable and verified data. In addition to the lab test report, WPUs receive an easy to read performance summary (ClearStream Report)

WHY?

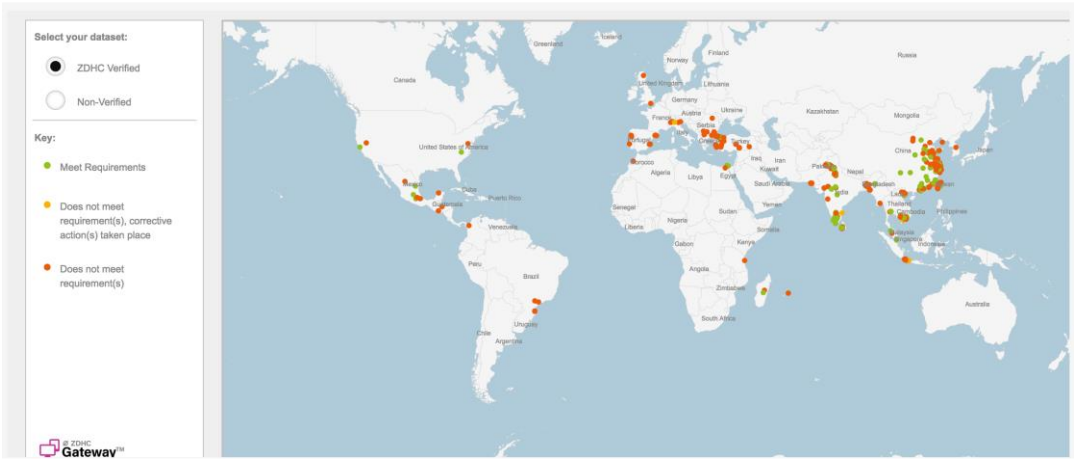
The discharge of wastewater containing hazardous chemicals has a significant impact on the environment and human health. The first step towards the prevention of wastewater contamination is by using only chemical formulations that are compliant with the ZDHC MRSL. Wet-processing units should then ensure proper wastewater treatment prior to discharge.

DISCLOSURE OF EFFLUENT DATA

Chemicals used in production of consumer goods can harm human health. Therefore, every global citizen has a fundamental **'Right to Know'** which hazardous chemicals are being used and discharged into the environment.

As part of Tchibo's commitment to create transparency over the use of chemicals in its supply chain, all factories involved in Tchibo production need to commission and publish their wastewater tests to the ZDHC Gateway.

By uploading wastewater test results to the ZDHC Gateway, the test data becomes visible to all ZDHC signatory brands, which means wet processing unit can save time responding to individual brand requests.



USE WASTE WATER DATA TO CONDUCT A ROOT CAUSE ANALYSIS

At this point there are no contractual consequences based on the results of your waste water test if local governmental regulations are met. However, in case chemicals are detected in wastewater, we do expect the WPUs to conduct a root cause analysis and **submit a corrective action plan to Tchibo within two weeks**.

The WPU should use the ZDHC Corrective Action Plan template (available on the ZDHC Gateway) and upload the completed file to the ZDHC Gateway. Please note that at this stage, WPU corrective action plans uploaded to the ZDHC Gateway are not visible for brands for data protection reasons. Hence, the corrective action plan must be submitted via email to detox@tchibo.de.

TRANSPARENCY OF CHEMICAL INVENTORIES FOR ADVANCED CHEMICAL INPUT MANAGEMENT (CIM)

Wastewater testing is an important basis for Tchibo to identify hazardous chemicals in wet processing factories. However, the industry is expanding its efforts to achieve the zero discharge of hazardous substances and including Chemical Input Management (CIM) to its approach. Tchibo sees great potential in this approach and is joining the movement.

WHAT IS CHEMICAL INPUT MANAGEMENT (CIM)?

Chemical Input Management refers to the regular monitoring of chemical inventories and their compliance level against different industry standards. An inventory of chemicals used and stored in factories is essential in order to:

- ✓ … monitor used chemicals against industry standards
- ✓ ….conduct regular risk assessments
- ✓ ….identify & substitute hazardous chemicals from the inventory list
- ✓ ….improve the factories‘ environmental performance
- ✓ ….contribute to protecting people and environment

Inventorying chemicals is therefore the first fundamental steps towards establishing good chemicals management.

Please note: Chemical Input Management does not replace the requirement to commission a ZDHC waste water test!

WHICH CIM TOOLS DOES TCHIBO RECOMMEND?

The ZDHC and other service providers already offer a range of chemical input management tools on the market. Tchibo acknowledges the following:

- BHive by GoBlu
- InCheck reports by CleanChain
- InCheck reports by BVE3
- Bluesign (Cube) system partnership

These tools are presented in more detail on page 24-27. Tchibo teamed up with GoBlu for the BHive use. In this case, we have the possibility to onboard and/or connect with the factories to view their chemical inventories.

HOW CAN SUPPLIERS SUPPORT TCHIBO?

The introduction of CIM to our Detox approach can only be successful with your support. Therefore, your responsibility is summarized in 2 main steps:

Step 1 Fill out the WPU disclosure form and include CIM information

Step 2 Provide information about CIM tools after wastewater testing

The Detox team needs the information about CIM tools used by WPUs in two time periods: 1.) When you fill the WPU form and 2.) When the wastewater test report of the **WPU shows chemical detections.** The Detox team will contact you.

In the upcoming section, you find detailed information about the above listed steps In any case can always contact deto@tchibo.de

Step 1 Fill out the WPU disclosure form

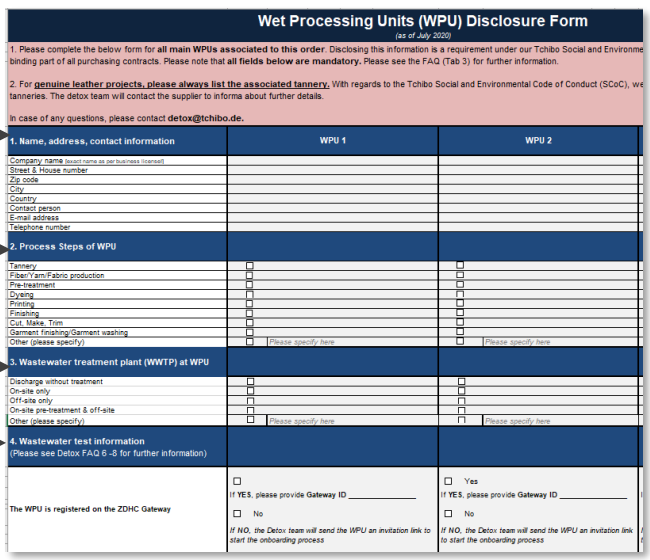
With an order placement, the buying department provides you with the offer sheet which includes the WPU disclosure form. In this form, it is mandatory to list at least one associated wet processing unit and include the following information:

- Address
- Country
- Contact details

- Covered process steps

- Wastewater treatment

- Wastewater testing.



Wet Processing Units (WPU) Disclosure Form

(as of July 2020)

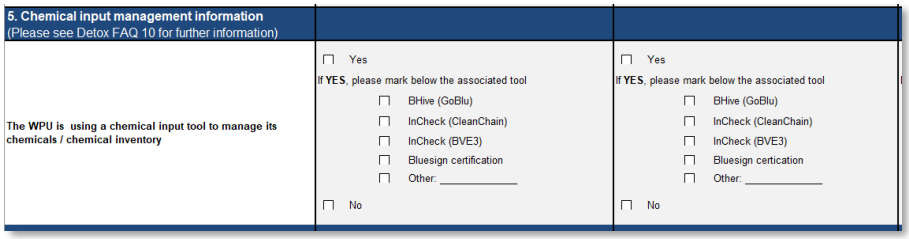
1. Please complete the below form for **all main WPUs associated to this order**. Disclosing this information is a requirement under our Tchibo Social and Environme binding part of all purchasing contracts. Please note that **all fields below are mandatory.** Please see the FAQ (Tab 3) for further information.

2. For **genuine leather projects, please always list the associated tannery.** With regards to the Tchibo Social and Environmental Code of Conduct (SCoC), we tanneries. The detox team will contact the supplier to informa about further details.

In case of any questions, please contact **detox@tchibo.de.**

1. Name, address, contact information	WPU 1	WPU 2
Company name (exact name as per business license)		
Street & House number		
Zip code		
City		
Country		
Contact person		
E-mail address		
Telephone number		
2. Process Steps of WPU		
Tannery	☐	☐
Fiber/Yarn/Fabric production	☐	☐
Pre-treatment	☐	☐
Dyeing	☐	☐
Printing	☐	☐
Finishing	☐	☐
Cut, Make, Trim	☐	☐
Garment finishing/Garment washing	☐	☐
Other (please specify)	☐ *Please specify here*	☐ *Please specify here*
3. Wastewater treatment plant (WWTP) at WPU		
Discharge without treatment	☐	☐
On-site only	☐	☐
Off-site only	☐	☐
On-site pre-treatment & off-site	☐	☐
Other (please specify)	☐ *Please specify here*	☐ *Please specify here*
4. Wastewater test information (Please see Detox FAQ 6 -8 for further information)		
The WPU is registered on the ZDHC Gateway	☐ If **YES**, please provide **Gateway ID** _____ ☐ No *If NO, the Detox team will send the WPU an invitation link to start the onboarding process*	☐ Yes If **YES**, please provide **Gateway ID** _____ ☐ No *If NO, the Detox team will send the WPU an invitation link to start the onboarding process*

As of July 2020, information about chemical input management (CIM) tools used by your wet processing factories also have to be included in the form.



5. Chemical input management information (Please see Detox FAQ 10 for further information)		
The WPU is using a chemical input tool to manage its chemicals / chemical inventory	☐ Yes If **YES**, please mark below the associated tool ☐ BHive (GoBlu) ☐ InCheck (CleanChain) ☐ InCheck (BVE3) ☐ Bluesign certification ☐ Other: _____ ☐ No	☐ Yes If **YES**, please mark below the associated tool ☐ BHive (GoBlu) ☐ InCheck (CleanChain) ☐ InCheck (BVE3) ☐ Bluesign certication ☐ Other: _____ ☐ No

In case the wet processing factory is not using any CIM tools, mark „No“

Step 2 Provide information about CIM tools after wastewater testing

Wet processig factories (WPUs) have to register for the ZDHC Gateway and upload a valid ZDHC wastewater test report. If the wet processing factory has hazardous chemicals detected in the wastewater test report, the Detox team will contact you to align the next steps.

As a first requirement, we kindly ask you to provide the Detox team a Corrective Action Plan (CAP) and Root Cause Analysis to show how the WPU will work towards ZDHC MRSL compliance in the future.

In case the WPU is already using a CIM tool, the Detox team will ask for further information / evidences:

- If BHive User → Please provide Factory ID
- If InCheck Report in CleanChain → Please provide report
- If InCheck Report in BVE3 → Please provide report
- If bluesign system partner → Please provide certificate

If the WPU is not using a CIM tool, the Detox team may onboard the factory to the BHive app. In this case, the costs will be covered by Tchibo and the company GoBlu will support the factories during the onboarding process.

In the upcoming sections, the 4 tools are presented in more deail.

CHEMICAL INPUT MANAGMENT TOOLS

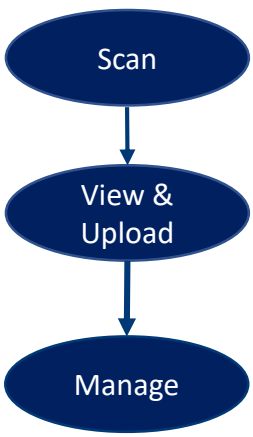
The ZDHC and other service providers on the market already offer a range of chemical input management tools that support the factories to monitor their chemical inventories. In the following section, **4 tools** are introduced which Tchibo recommends for use.

BHive by GoBlu

BHive is an app-based tool designed by GoBlu, a sustainability accelerator for apparel and textile companies. The service provider offers solutions on brand-level and supply chain level to help them operate in a more sustainable way.

For more detailed information visit their website: https://www.goblu.net/

The Bhive app can be downloaded easily via the apple or android store. Additionally, the factories receive access to the desktop platform in order to manage their chemical data. The application is very simple:



Factories use the BHive App to scan chemical product QR-codes or label.

When all chemical products are captured, the list can be uploaded by one click..

After uploading the list, factories access the BHive platform to monitor, share and improve their chemical inventories with their brands.

Click here for. Bhive introduction video

When the onboarding process is complete, the factory can connect with its partners and chemical formulators to start building an advanced chemical management.

CleanChain by AEDEC

CleanChain is a web-based platform developed by ADEC innovation. CleanChain helps factories, brands and chemical formulators gather data from diverse sources, streamline reportings and create transparency in one location.

For more details, visit the website: https://www.cleanchain.com/about-us/

Since CleanChain also works with the ZDHC Gateway, they platform provides access to ZDHC Gateway data and automatically matches chemical formulations to verified ZDHC levels and other data.Furthermore, CleanChain provides tools to aggregate comparable information, e.g. InCheck reporting and other assessments.

The CleanChain platform consist of different modules that can be used for different purposes:

Chemical Module

- Manage chemicals with inventory uploads
- Monitor conformance against industry standards such as the ZDHC MRSL.

For details: Click here

Action Module

- Build action-oriented root cause analysis for high compliance
- Create, distribute and automate assessment s

For details: Click here

Compliance Module

- Determine and assess local compliance obligations

For details: Click here

The application to monitor chemical inventories is simple:

1.) List all chemicals used *2.) Upload the list* *3.) Share results*

Within the Chemical Module of CleanChain, chemical inventories can easily be aggregated in an InCheck report. It summarizes the compliance level of chemicals and next steps at a glance. Therefore in case a wet processing factory is already streamlining InCheck reports over the platform, it should provide Tchibo with the according results.

BVE3 by Bureau Veritas

Bureau Veritas launched an IT platform, BVE^3, a risk matrix approach, to support the Chemical Discharge Monitoring business. BVE^3, Bureau Veritas' Environmental Emission Evaluator, is a supplementary tool to support supply chain partners in reducing the environmental impacts.

For more details, visit the website: https://www.cps.bureauveritas.com/

With BVE^3, the factories can gain higher transparency on their chemical compliance level. BVE^3 assists in constructing realistic discharge scenarios for the hazardous substances that are used along the production process and released to the environment (waste water discharge).

The application is similar to the CleanChain platform and BHive app:

1. Upload

Factories upload chemical information to BVE^3, on a monthly basis

2. Analyze

Bureau Veritas' specialists analyze factories' inputs and the calculated output results in the estimated concentration and amount of hazardous substances

3. Evaluation

The number and amount of hazardous substances in the chemical inventory and discharge create 3 indexes to help measuring factories' chemical management performance:

Transparency Index	A measurement of the declared chemicals within the chemical inventory and the quality of Material Safety Data Sheet (MSDS)
Greener Chemical Usage Index	Provides an indication of the proportion of chemicals declared under the Chemical Inventory List (CIL) used in the manufacturing process that qualify them as hazardous substances free (defined under MSDS)
Clean Emission Index	Represents the level of hazardous substances free discharge during the manufacturing process

Click here for. BVE3 introduction video

bluesign® CUBE

BLUESIGN belongs to the pioneer companies for advanced chemical management and transparency in the supply chain. Even before the REACH regulation came into force, BLUESIGN laid the groundwork for its comprehensive chemical management. It advices companies in the resource-improving production in order to reduce impacts on people and the environment.

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For more details, visit: https://www.bluesign.com/en/business/the-blue-way

BLUESIGN offers a range of services for brands, factories and chemical suppliers to address specifc needs. The main focus is:

In particular, the bluesign® CUBE, a cloud computing solution, provides continuously growing and updated information, as well as applications and modular services for advanced chemical management. Even for Non-System Partners, BLUESIGNS offer a range of single services.

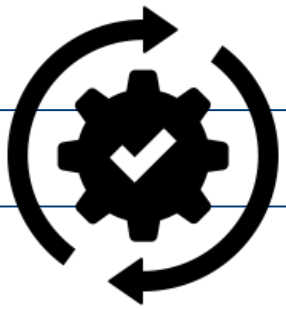
For more details, visit the website: https://www.bluesign.com/en/business/cube.

The application of the bluesign® CUBE is similiar to the other tools. In addition, bluesign offers regular on-site assessments to evaluate and aggregate factory improvements. With bluesign conform chemicals, the factories can build a chemical inventory that is compliant to the ZDHC MRSL and beyond.

Click here for. bluesign® CUBE introduction video

If your wet processing factories are a bluesign system partner or have been certified by the service provider, they can provide Tchibo with the according document. Since BLUESIGN is highly recognized in the market, the factory does not need to provide Tchibo with additional reporting results.

3] Get Started - Checklist Responsibilities



TO DO

TRANSPARENCY

*The production units where **wet processes such as dyeing, printing, washing and finishing** are conducted shall be known and their compliance with the RSL/MRSL is ensured*

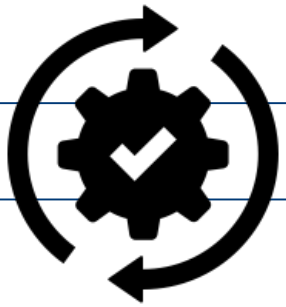
- ☐ **List all your suppliers** with name, geographical location and their type (e.g. trader or producer)
- ☐ **Identify** your suppliers with own **wet processing units**
- ☐ Ask your suppliers to determine and **disclose supply chain actors** conducting wet processing units
- ☐ **Collect, evaluate and document relevant supply chain data** from suppliers and production units
- ☐ **Evaluate supplier‘s feasibility** as your Detox partner
- ☐ **Build up reliable and stable relationships** with producers
- ☐ **Implement control measures** to ensure producer’s compliance with RSL/MRSL requirements and **establish a supplier management and evaluation system**
- ☐ **Install an internal traceability system** to follow up which supply chain actors are involved in production of a single product.

DOCUMENTATION

Evidences of conformity shall be documented properly

- ☐ **Collect and document conformity declarations** from suppliers’ products which are sold to Tchibo stating that the supplied goods are produced in compliance with the Tchibo RSL/MRSL. These documents include test reports, certificates or self-declarations as a minimum.
- ☐ **Document** available **test reports** for used components, materials as well as for final products
- ☐ **Keep documents for an adequate period** in accordance with legal storage and product liability obligations

Producer (CMT)



TO DO

INVENTORY

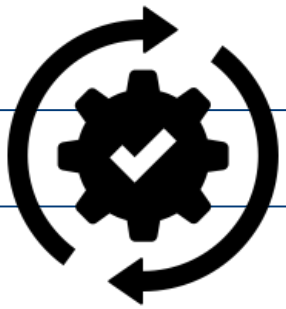
A comprehensive inventory list of all used components as basic instrument to manage compliance with Detox, RSL and MRSL requirements, shall be established and maintained

- ☐ **Identify all materials, components and semi-finished products** available in your production site
- ☐ **Keep and maintain an inventory list** on all identified components such as fabrics, yarns and trims in use and stored
- ☐ **Ensure** that your inventory lists are always **up-to-date**
- ☐ **Use ZDHC Gateway Chemical Module**
- ☐ Keep and maintain an **inventory list on all identified chemicals at your sub-suppliers.** The lists should be used to:
  - ✓ check compliancy of chemicals with Detox and Tchibo requirements
  - ✓ identify and eliminate gaps in documentation

DOCUMENTATION

Bill of materials for all Tchibo articles and evidences of conformity shall be documented properly.

- ☐ **Record a Bill of Material (BOM)** for each article/order to be produced for Tchibo including all components used in a material inventory
- ☐ **Collect and document conformity declarations** from suppliers' products which are sold to Tchibo stating that the supplied goods are produced in compliance with the Tchibo RSL/MRSL. These documents include test reports, certificates or self-declarations as a minimum.
- ☐ **Document** available **test reports** for used components, materials as well as for final products
- ☐ **Documents procedures, training materials and instructions** related to Detox and Chemical Management
- ☐ **Keep documents for an adequate period** in accordance with legal storage and product liability obligations



TO DO

RSL I MRSL COMPLIANCE

Chemicals and chemical preparations in use shall be evaluated and in case of non-conformity with the Tchibo RSL/MRSL requirements, procedures are defined.

☐ **Evaluate data** from SDS to ensure ZDHC MRSL compliance

☐ Ask your chemical suppliers for **supporting secondary documents to proof conformity** with the ZDHC MRSL and to proof qualification of the chemical product to meet the Tchibo RSL/ ZDHC MRSL requirements. These documents comprise

- ✓ test reports
- ✓ certificates or
- ✓ at least declarations (stating the chemical main component, CAS number, presence and quantity of substances mentioned in the Tchibo RSL/MRSL for each chemical preparation, which is indicated with full trade name)

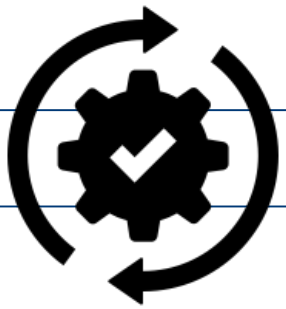
☐ **Implement testing procedures** to close data lacks

☐ **Select chemical suppliers** based on quality of data and documents

☐ **Use ZDHC Gateway Chemical Module** for MRSL compliance check

☐ **Assess chemicals and chemical preparations** in use and

- ➢ *In case of non-conformity (chemical preparation contains restricted substance(s) in values above the thresholds defined in ZDHC MRSL):* Substitute the chemical preparation by safer alternatives or consult Tchibo for further advice.
- ➢ *In case chemical preparation contains restricted substance(s) in values below the thresholds or in case the processed material can meet the threshold values defined by the Tchibo RSL:* Control processes and process parameters properly to ensure that the values stay below the defined thresholds. Check residues on the processed material randomly by testing or consult Tchibo for further advise.
- ➢ *In case the chemical preparation contains no restricted substance(s) and no risk of unwanted reaction of a chemical with others is given:* The chemical preparation can be used.



TO DO

DOCUMENTATION (INVENTORY I SDS)

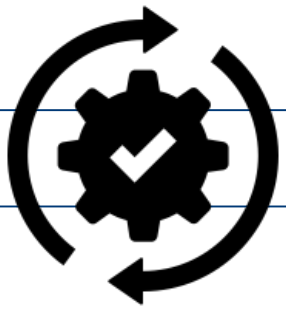
Evidences of conformity shall be documented properly

- ☐ If you have already **inventory lists** in place, **check them on completeness** by comparison with the Tchibo chemical inventory list template and integrate additional columns which are missing
- ☐ To complete an inventory list you have to **collect documents** from the chemical producer such as Safety Data Sheets (SDS), producer declarations, test reports etc.
- ☐ **Ensure** that your inventory lists are always **up-to-date**
- ☐ **Request SDS (Safety Data Sheets)** from your chemical suppliers **for all chemicals** and chemical preparations, file and update it regularly
- ☐ **Check SDS on completeness** (norm, CAS number, chemical composition, H-Phrases etc.) → **Reject SDS** which do not comply with current legal requirements
- ☐ **Record the individual recipes** (at least for Tchibo orders) stating used colourants and auxiliaries and chemicals with complete trade names, indicate the chemical preparations with exact quantity used for processing the specific order (per colour shade) plus according process parameters such as temperature, pH-value and time
- ☐ **Document** available **test reports** for incoming material, processed materials as well as for final products
- ☐ **Documents procedures, training materials and instructions** related to Detox and Chemical Management
- ☐ **Keep documents for an adequate period** in accordance with legal storage and product liability obligations

HOUSEKEEPING I PROCESSES

Keeping a facility clean and organized helps to reduce risks of accidents and exposure to hazardous and ensure compliance with Detox requirements and further environmental and occupational health & safety (OHS) regulation

- ☐ **Store chemicals safely** in separated storage areas



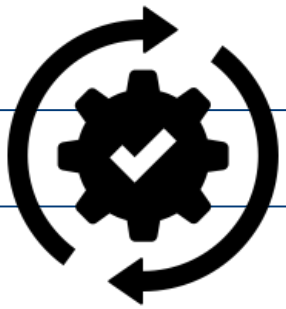
TO DO

- ☐ Use proper and **clean containers** to avoid contamination
- ☐ **Avoid leakage and spillage** in production and storage areas
- ☐ **Label the containers** in storage and production with the full and correct trade name of the chemical preparation, respective warning signs as well as relevant storage and OHS provisions from the SDS
- ☐ **Install warning notices** related to restricted substances e.g. 'Contains PVC' or 'Do not use for baby items'
- ☐ **Avoid (cross-)contamination** of goods in production by appropriate measures such as regular cleaning of machinery and containers, separate processing for goods, etc.
- ☐ **Implement clearly defined cleaning routines**/ machine downtime to avoid contamination by:
  - secondary auxiliaries such as glue;
  - residues on working material such as screens, tables or squeegees;
  - leavings on Personal Protective Equipment such as gloves;
  - transfer from machinery e.g. during curing
- ☐ **Ensure that workers handling chemicals are trained** and equipped with adequate personal protective equipment

WASTE WATER TESTING

In the production processes and at the production site processes for the proper management of wastewater shall be implemented

- ☐ **Ensure that wastewater is not discharged untreated**. Correct treatment has to be ensured either through a functional own effluent treatment plant or a central treatment plant
- ☐ **Measure** the discharged water regularly
- ☐ **Register with the ZDHC Gateway Wastewater Portal** and commission their wastewater test through the platform. Upload of wastewater tests to ZDHC Gateway is mandatory for all tests commissioned after 1st March 2019.



TO DO

R&D

Research and development are on-going processes, which have to be conducted on a steadily base

- ☐ Constantly and continuously **observe trends** in legal regulation as well as in the textile industry or NGO driven calls for restrictions/regulations of chemical substances in order to anticipate the demand or need for substitution of certain substances and to be able to readily offer products using alternative chemical substances when restrictions or phase out scenarios definitively enter into force
- ☐ Maintain a routine procedure to **regularly review all chemical substances used in their product range against legal and market requirements** to identify restricted substances/chemicals of concern (SVHC, substances with EH&S relevance, substances identified as critical/ hazardous by NGOs, etc.)
- ☐ **Conduct chemical hazard assessments:** It is necessary that business processes are in place to gather and monitor data of chemical substances which has impact on humans or the environment
- ☐ **Gain knowledge, to control and to monitor the level of potential impurities** and traces/technically unavoidable impurities in his chemical products to ensure a safe use and product compliance for downstream users of his products

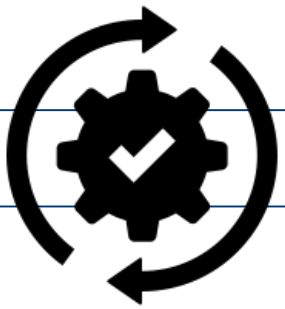
DOCUMENTATION

Availability of reliable data and its timely up date to changing legal regulations is a key factor to meet all human health and environmental requirements and to safeguard the conformity of products with statutory regulations and company standards like the Tchibo requirements

- ☐ **Provide Safety Data Sheets (SDS)** free of charge actively or upon request for any hazardous chemicals according to one of the following norms or directives (GHS, 1907/2006 EEC (REACH), ISO 11014-1, GB/T 17519-2013)

  The SDS needs to ….

  - be elaborated by a competent party
  - be provided in the local language of the customers
  - bear a date and be up dated when new information on the chemical becomes available or status of REACH authorization is changed or a relevant restriction is imposed under REACH
  - provide technical data for downstream users on product application in view of enabling the user to meet OHS provisions and restrictions/ limitations on chemical substances given in legal standards



TO DO

COMMUNICATION

Communication processes with customers have to be implemented and the clear labelling of chemical products has to be ensured

- ☐ Have a business process in place to actively **provide most recent versions of safety data sheets** to customers
- ☐ **Provide secondary technical instructions on the application of the chemical products** to customers – especially in view of meeting market requirements and standards. Upon request declarations against the Tchibo RSL/MRSL need to be made available – based on checking the feasibility of compliance
- ☐ **Ensure that chemical containers/ drums are clearly labelled** for identification and safe handling such as with complete trade names of the chemical substance/ mixture, respective warning signs/ pictograms and production batch/ lot numbers

Suppliers and producers of chemical products are essential actors to achieve Zero Discharge. *Their contribution to the Detox commitment and the given support to their customers (textile producers) are crucial factors in establishing a holistic Chemical Management System to ensure compliance with Tchibo requirements!*

4] Appendix - Links I Videos I Further Reading

CPI2

Tchibo has developed several tools to support suppliers and factories to improve their chemical management. Besides this handbook we recommend the online training CPI_2, a knowledge platform which helps factories to identify improvement potentials and provides concrete guidance.

Register Online: CPI2 (Carbon Performance Improvement Initiative)

Strategic alliance on sustainable chemical management in the textile production

To promote on-site advisory services, in 2016 Tchibo teamed up with the REWE Group and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) under the develoPPP program by the Federal Ministry for Economic Cooperation and Development to devise and adopt a **qualification programme for chemicals- and water-intensive production** areas. As part of this project, local experts are trained in Bangladesh and China, who then support production plants in the establishment of a chemicals management system. The structures and training concepts developed for this purpose are to be made available to other interested companies and thus contribute to an improvement in the industry. The project will run for three years and has a volume of 2.3 million euros.

Partnership for Sustainable Textiles

View I Download: Chemical Fact Sheet Antimony

View I Download: Chemical Fact Sheet DEHP

View I Download: Chemical Fact Sheet EDTA und DPTA

View I Download: Chemical Fact Sheet Formaldehyde

View I Download: Chemical Fact Sheet PFCs

View I Download: Chemical Fact Sheet KMnO4

View I Download: Chemical Fact Sheet Quinoline

View I Download: Guideline – Chemical Management

Tchibo is member of the German “Partnership for Sustainable Textiles”, a multi-stakeholder initiative with about 150 member brands. The initiative is striving to improve the conditions in the global textile production – from the production of raw goods for textile production to the disposal of textiles.

KNOW HOW

The Partnership for Sustainable Textiles has developed a know-how platform, with knowledge about how to handle specific risks in the textile and garment industry. These risks cause different needs for action in different areas. Here you can find tools to spread this knowledge.

You can also find tools and training materials on Chemical and Environmental management.

VIDEOS

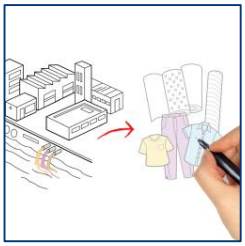
Fur further information we also recommend training videos on better chemical management. Partnership for Sustainable Textiles developed three short videos, which support the general raising of awareness and acquisition of selected basic knowledge in the field of chemicals management.

Global textile production often uses chemicals that pose risks to workers, the environment and textile consumers

VIDEOS

Fur further information we also recommend training videos on better chemical management. The “Clothing Industry Training Authority” (CITA) based in Hong Kong has developed 10 animation videos to learn basic concepts and technical terms related to chemical management systems:

RSL I MRSL



Understanding Restricted Substances

Watch Video

Best Practices for RSL Compliance

Watch Video

Introduction of Manufacturing Restricted Substance List (MRSL)

Watch Video

Understanding & Interpreting Restricted Substance List (RSL)

Watch Video

Chemical Management

Chemical Management System for Compliance

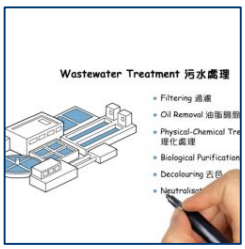
Watch Video

Understanding Material Safety Data Sheet (MSDS)

Watch Video

Chemical Safety & Handling Training

Watch Video

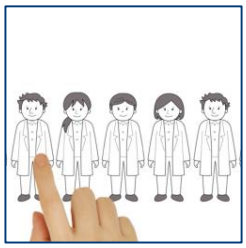


Wastewater Treatment in Textile Facility

Watch Video

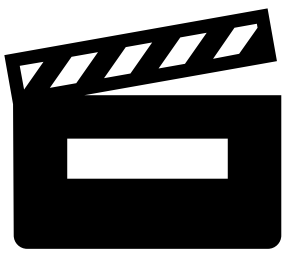
Guidelines for Hazardous Wastes Management

Watch Video



Risk Assessment of Chemicals

Watch Video



CONTACT DETAILS

If you need any assistance or if you have any questions do not hesitate to contact us: detox@tchibo.de