
# Chemical Management Handbook v 2.0

# Foreword

As an internationally operating lifestyle company, we take the responsibility for our environment very seriously and are aware of our social responsibility. Therefore, sustainability is an inner attitude in our daily work. It is our commitment to constantly improve our business activities by making the interaction between people and the environment as responsible as possible.

We started our journey to Zero Discharge since 2016 with our own MRSL which was successfully integrated into our supply chain activities. As we need to strengthen our activities for achieving Zero Discharge, we adopt the widely accepted industry best practice ZDHC MRSL.

In partnering with us, we need the responsibility from our suppliers to ensure that all legal requirements concerning labor compliance, occupational health and safety, product safety and environmental safety are fully complied with.

This Chemical Management Handbook aims to provide some guidance for our partners to develop their own chemical management processes and system which helps to accomplish a better sustainable supply chain and compliance. This Chemical Management Handbook will be reviewed and updated from time to time depending on upcoming new requirements. Suppliers are welcome to interact with us to provide comments and suggestions. We always look forward to working together, sharing better information and practices in these corporate documents.

Yours sincerely,

Gernot Lenz
Chief Executive Officer

Suzanna Smith
Global Sourcing Director

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# Acronyms and Abbreviations

| | |
|---|---|
| BEPI | Business Environmental Performance Initiative (a.k.a. amfori BEPI) |
| BEPI SAQ | BEPI Self-assessment Questionnaire |
| CMO | Chemical Management Officer |
| CMR | Carcinogenic, Mutagenic or Toxic for Reproduction |
| CMS | Chemical Management System |
| DWR | Durable Water Repellent |
| ED | Endocrine / Hormonal Disruptors |
| GHS | Globally Harmonized System of Classification and Labelling of Chemical |
| GI | General Instructions |
| KPI | Key Performance Index |
| MRSL | Manufacturing Restricted Substances List |
| MSDS | Material Safety Data Sheet |
| PBT | Persistent, bio accumulative and toxic |
| PPE | Personal Protective Equipment |
| REACh | Registration, Evaluation, Authorization and Restriction of Chemicals |
| RSL | Restricted Substances List |
| SDS | Safety Data Sheet |
| SOP | Standard Operating Procedure |
| SVHC | Substances with Very High Concern (as defined by REACH) |
| TSDS | Technical Safety Data Sheet |
| TTS | Tom Tailor Sourcing Offices |

# Overview

In textile and apparel industry, lots of chemicals are being consumed in processing and manufacturing of a product. Wet processing on textiles, garments and trims are especially highly dependent on chemicals.

While scientists and chemists are still working on researches, there are readily available literatures confirming some chemicals are hazardous and can be harmful for the environment, marine lives and human beings.

Though organizations, associations and other stakeholders have already been working on regulations for chemical thresholds, contaminations and residues still exist. Hence, a Chemical Management System/ Mechanism (CMS) across the supply chain must be continuously improved and fully implemented. Having a proper chemical management would result in a safer product, lesser health risks and workplace accidents, better environmental protection and conservation.

The baseline for building the chemical management tool is the Manufacturing Restricted Substances List (MRSL/RSL) which sets the minimum requirements for chemical input and output for suppliers, partners and processing facilities. It can be found in the Appendix of our chemical handbook.

**Scope**

TOM TAILOR wants to ensure compliance with laws and regulatory requirements, like, in markets where TOM TAILOR products are sold and produced/ sourced. TOM TAILOR looks forth to go beyond to DETOX its supply chain through eliminating hazardous chemicals.

The procedures set forth in the coming pages, therefore apply to all suppliers of products sold by TOM TAILOR, irrespective of their method of sourcing.

This includes suppliers, processing facilities and subcontractors of:

- Garments (including dye house, laundry, fabric mill)
- Home Textiles
- Shoes and Bags: the products supplied must comply with the requirements of CADs RSL. The link to the current version can be found in the Appendix.

That are handled by:

- Our Sourcing Offices (TTS)
- Sourcing agencies
- Importers
- Licence partners

And supplying to:

- TOM TAILOR lines

**Definition of Hazardous Chemicals:**

“Hazardous Chemicals” is a very broad and generic term. It means any substance, item, chemical, or agent that could cause harm to humans, animals, or the environment, either by itself or through interaction with other factors.

Hazardous chemicals are frequently used in the workplace as raw materials, solvents, cleaning agents, or catalysts, etc. These are normally classified per the risk they pose to health and property.

Possible hazards are:

- Health and Safety Hazards
- Physical Hazards
- Fire Hazards
- Explosive Hazards
- Systemic Effects
- Target Organ Effects

Regarding physical safety concerns, flammability, corrosion, explosion and reactivity properties should always be considered.

# Keys for Chemical Management

The following are keys for a better chemical management for suppliers, and should be set as foundations for building suppliers' own chemical management system:

- Demonstrate management commitment through establishing "chemical policy", it should be endorsed by an authorized official and communicated within the organisation
- Strictly comply to environmental regulations and in-house chemical policy, review and update them from time to time base on international, national, and/ or industrial standards
- Apply and maintain the proper license(s) and/ or permit(s) for the usage and storage of any hazardous substances onsite per respective regulations
- Put in place a Responsible Personnel (or Team) who must have good understanding and knowledge of chemicals; training and education program should be available to ensure everyone's knowledge on chemical management is kept up-to-date
- Only purchase the suitable chemicals and amounts required; reduce inventories and store only what is almost immediately needed
- Keep abreast of safe chemical and technology updates, maintain "Positive List" and substitute hazardous chemicals whenever possible, or adopt new technologies to replace chemical intensive processes
- Improve inter-facility and intra-facility delivery of chemicals to avoid leakages
- Minimize hazardous waste disposal, fully comply to international and/ or national standards
- Automate repetitive high risk tasks by machine if possible
- Increase operational safety for workers and the community, including but not limited to: ensure good ventilation at the workplace, provision of suitable PPE
- Conduct regular review/ audit to ensure the procedures are properly followed, corrective actions and revision to the procedures should be done where needed

In addition to adopting the above keys into one's chemical management system, it will be good to understand that in every system development, "Plan-Do-Check-Act" (PDCA) is a common approach for continuous improvement to ensure the management system is robust and sustainable. Hence, PDCA should be an important method reiterating the chemical management system implementation.

# Initial Steps for Building Chemical Management System

## Establish Management Commitment

The Supplier Management has to clearly define their commitment in regards to chemical management, and the scopes, goals and requirements should be well-defined and properly communicated within the organization.

In general, the scopes, goals and requirements are related to the interests of internal and external stakeholders. Senior management of the supplier must adhere to the commitment when creating policies, practices and procedures, also deliver and drive the same to all related units and workers, from top to the bottom.

## Creating Standard Operating Procedures

Standard Operating Procedures (SOP) needs to be created to clearly define the responsibilities and tasks that are required from the responsible departments, teams, units and personnel.

Procedures on communications, process workflow, detailed handling and reporting, regular review and checking should be established and devised.

## Creating Chemical Master List and Building Chemical Inventory

As an easy step for suppliers to start with their chemical management system, a preferred industrial practice is to create a Chemical Master List and a Chemical Inventory Record. Every single chemical must be registered and tracked. This database is useful for the PDCA of chemical management system subsequently.

From the Master List and Inventory List, supplier needs to record below key information of their chemicals (most of them can be found from the MSDS/ TDS):

- Type of chemicals (e.g. dye, pigment, detergent, softener, emulsifier, resin, etc.)
- Name of chemical (e.g. Bionic-Finish Eco)
- Name of chemical brand (e.g. Rudolf GmbH)
- Name of chemical supplier/ provider (e.g. ABC Chemical Supply Service Ltd.)
- Contact of chemical supplier/ provider (e.g. Name, email, telephone)
- CAS number for each active chemical ingredient (e.g. Benzene, CAS no.: 71-43-2)
- Known or potential hazards/ toxicity (e.g. carcinogenic, hormonal disruptor)
- Safety precautions and first aid measures

- Inventory of Incoming Chemicals (e.g. 500 Litre of Bionic Finish Eco received on 1st August, 2016)
- Inventory in Production Unit (e.g. 200 Litre of Bionic Finish Eco in fabric finishing unit on 1st July, 2016)
- Log on whether the chemical is: 1) Bluesign certified, 2) Oekotex certified, 3) third-party tested to confirm free of hazardous substances, and/ or 4) with chemical supplier's/ provider's self-declaration

In collecting the above information, a massive chemical database will be established. Subsequent chemical review together with necessary testing will help to find out and identify problematic chemicals. Further down to this, suppliers can apply the understanding of the chemicals to identify the level of risk and hazards for the related process. Decision can be subsequently made to phase out or replace the unwanted chemicals as next step.

**Chemical Hazard Determination and Risk Assessment**

It is the process of evaluating available scientific evidence in order to determine if a chemical is hazardous pursuant to commitment and/ or customers' requirements (e.g. MRSL).

This evaluation identifies the hazards of a chemical that may pose to the environment, and human being. (Please refer to "Definition of Hazardous Chemicals".)

Hazard determination sets the baseline for a further estimation and assessment of risk. Hazard refers to an inherent property of a substance that is capable of causing an adverse effect. Risk refers to the probability that an adverse effect will occur with specific exposure conditions. Thus, a substance will present the same hazard in all situations due to its innate chemical or physical properties and its actions on cells and tissues. However, considerable differences may exist in the risk posed by a substance, depending on how the substance is contained or handled, personal protective measures used, and other conditions that result in or limit exposure.

It is advised that supplier chemical management responsible team or personnel should always keep abreast of the latest regulatory updates (producing countries and importing countries), customer requirements, industrial standards/ best practices, and maintain communication with chemical suppliers to ensure maintenance of a proper benchmark for eliminating undesirable chemicals, and replacing them with better option available. The responsible team should set targets and implementation plan for such elimination, reduction of substitution of hazardous substances to ensure continuous improvement.

In working with chemical suppliers, below steps could be taken for increased assurance to MRSL compliance:

- Purchase from those who could provide Bluesign certificate (Blue/ Green)
- Purchase from those who could provide Oekotex certificate
- Purchase from those who could provide test reports of the particular chemicals on sourcing list
- Purchase from those who could provide a declaration (signed by recognized company official) on MRSL compliance (in the form of self-declaration, and chemical information list)

*Chemical suppliers should provide valid MSDS/ TSDS of the particular chemicals purchased, and local language version should be available too for operational use.

In sourcing chemicals, preferences should be given to those “Green chemicals” and those on “Positive Lists”.

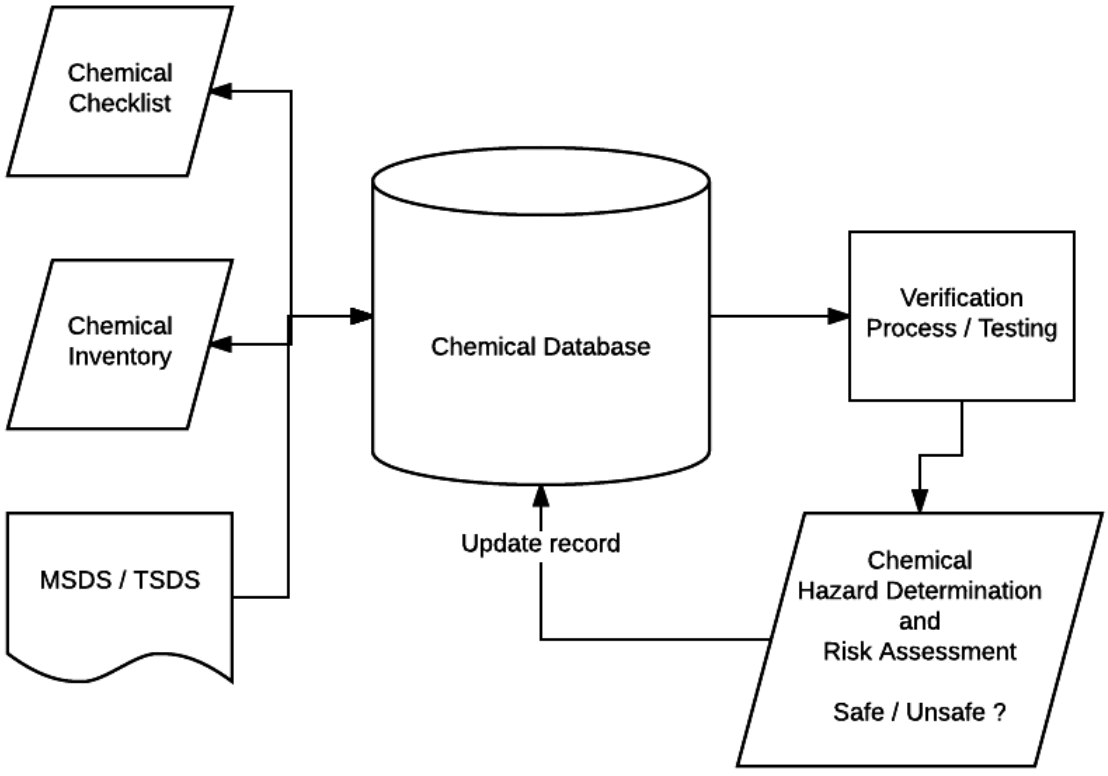



Fig. Sample workflow

## Setting up Roles and Responsibilities

A fundamental chemical management system requires people to manage and execute. Top management or senior leadership must commit and ensure the availability of resources essential to establish, implement, maintain and improve the system from time to time. Resources include human resources, skills and knowledge, organizational infrastructure, technology and hardware, and financial resources.

Each organization may have its own infrastructure and organisation hierarchy setup to run the chemical management system. In general, the roles and responsibilities should at least cover –

| Role | Responsibility |
|---|---|
| Chemical Management Officer (CMO) | • Reports to top management and senior leadership<br>• Responsible for day-to-day management of chemical management system<br>• Responsible for setting up goals and commitment for the organization, ensuring compliance to applicable requirements<br>• Responsible for tracking progress, monitoring KPIs and goals to supply chain partners |
| Regulatory Compliance Officer (RCO) | • Ownership of building, maintaining and updating the local, national and international regulatory compliance requirements within the organization<br>• Addressing new or changing compliance requirements to CMO that could affect the business and operation of the organization<br>• Responsible for RSL and MRSL compliance and communication with supply chain partners |
| Technical Officer (TO) | • Responsible for production process and product chemical knowledge<br>• Responsible for working together with RCO to communicate the necessary technical information with supply chain partners; and provide technical support to the organization<br>• Responsible for chemical hazard determination and assessment<br>• Responsible for exploring safer alternatives (e.g. chemicals, technology) |

# Chemical Management Work Practice

For chemical management work practices, we will need to establish documented procedures for different areas, and implement accordingly, but below are the keys.

**Chemical Labelling**

Chemical containers and packaging should allow for clear identification of chemical substances. Hazard and risk information needs to be delivered to people who will have contacts with the chemical. Internationally standardized labels (e.g. GHS), markings, symbols, warning statements are commonly used to serve above purpose.

Suppliers should ensure incoming chemicals are with proper labels on packaging upon receipt. Simplified labels with essential information in local language including chemical name, and warning sign should be used whenever smaller portions are to be disseminated or distributed for use in the factory premise.

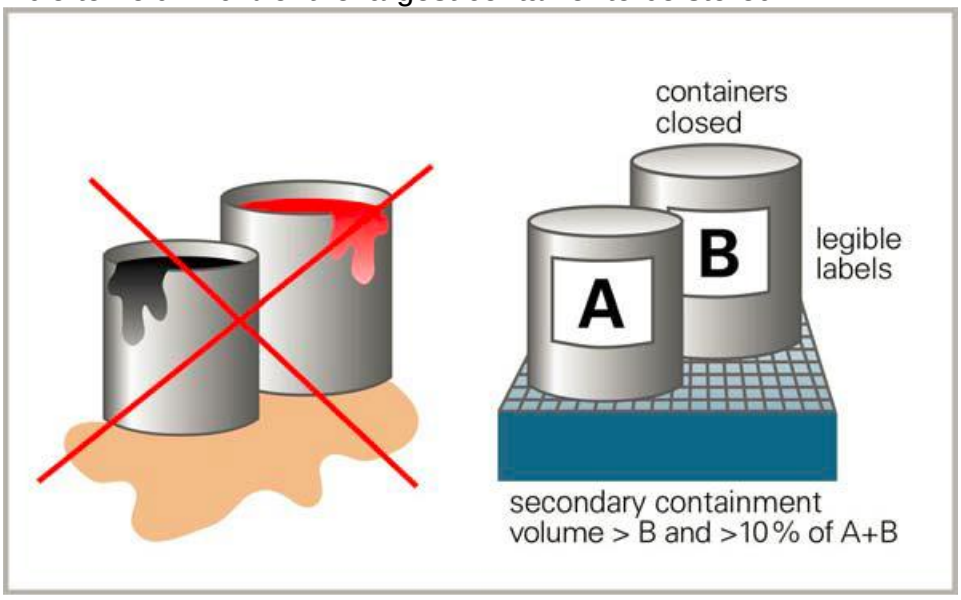
Any unidentifiable chemicals found in the workplace should be cleared and properly handled to avoid contamination of the production floor.


## Secondary Containment

A secondary containment is one that is designed to catch hazardous materials if the container leaks or the chemical spills. Such containment is crucial to keep the chemicals contained so they do not contaminate soil, air or water.

The secondary containment can be in the form of absorbent material, special pallets, or barrels, and it should comply with the following:

- Chemically compatiable with the materials to be stored in them
- Designed in accordance with the total volume of containers to be hold with respect to the principles for whichever is better: (may refer to US OSHA or other resources for more guidance)
    - At least 10% of the total volume chemicals to be stored
    - Able to hold 110% of the largest container to be stored




- Clean, leakage- and crack-free
- Discharges into the secondary containment must be cleaned immediately and properly disposed

## Personal Protective Equipment

While it is critical to avoid hazards and risks at the first place when designing the workshop and adopting particular process workflow, PPE, as a last resort though, should always serve to protect employees from being hurt by an unexpected accident or expected incident in daily operations.

Information on the use of appropriate PPE should be found in the MSDS for each chemical. PPE must at least protect operators':

- Eyes by wearing protective or safety eyeglasses or goggles
- Skins by wearing appropriate protective gloves, apron and shoes
- Respiratory system by wearing appropriate masks

For areas where chemicals are used, PPE usage warning signs and respective instructions should be posted to guide the proper usage, and respective PPE should be provided free for use by employees – regular maintenance and replacement of such PPE should be done to ensure the protection.

***Caution***
Suppliers should ensure work environment assessment in relation to occupational health and safety is conducted on a regular basis and when there are changes in the production process, so as to make sure the setup is safe to operators. If potential hazards are identified, suitable measures and PPEs should hence be provided as protection for employees.

In addition to work environmental assessment, suppliers should provide occupational health examinations for operators before/ during/ after they hold the position that involves dealing with chemicals. It is also advised that regular job rotation should be exercised for such operators.

**Storage**

With respect to the potential hazards that chemicals may bring, precautions must be taken in storing chemicals at the workplace.

Where appropriate, chemical storage/ warehouse is better set in an isolated building with restricted access. Such area must be encased with sound construction to stand from weather, well ventilated, free of obstruction, kept dry and clean.

Chemicals should be stored in accordance with their properties and compatibilities, e.g. acids should never be put together/ near alkaline, oxidants and flammable chemicals should be stored individually and/ or special rooms/ cupboard to ensure safety.

Signage (chemical names, warning and hazard labels, etc.) and MSDS should be available as identification for ease of segregation and onsite handling.

On the work floor, only daily usage amount of chemicals should be kept to avoid any accidents. Inventory log for tallying the amount getting in and out of the chemical storage/ warehouse should be kept for integrity checking.

If suppliers may have any aboveground/ underground tanks onsite for chemical storage, the rules above should apply as well, and regular integrity testing of such tanks should be conducted. They should also ensure any license or permit appropriate should be valid in place.

**MSDS**

For every chemical product, it should have its own MSDS/ TSDS/ SDS. Suppliers should obtain such information from the chemical suppliers/ dealers/ agencies for understanding thoroughly what chemicals are being used onsite, and what sort of measures need to be taken.

MSDS should include 16 items, namely:

1. Chemical product and chemical supplier/ agency information
2. Hazards identification
3. Composition/ information on ingredients
4. First aid measures
5. Firefighting measures
6. Accidental release measures
7. Handling and storage
8. Exposure controls/ personal protection
9. Physical and chemical properties
10. Stability and reactivity
11. Toxicological information
12. Ecological information
13. Disposal considerations
14. Transportation information
15. Regulatory information
16. Other information

**Waste and Disposal**

Many production processes generate waste. The disposal can be to air, water or soil. The hazards, risks and toxicity of disposed waste chemicals should be identified and measured.

In best practice, recycle or reuse the waste is ideal whenever possible. However, if recycle or reuse is not applicable, organization needs to make sure the waste and disposal will be treated before discharging or releasing to public. The waste should be properly handled by qualified service providers and the hazardous and toxic impact to human and environment must comply with the regulation and should be as low as possible.

Suppliers should establish waste handling procedures to include hazardous and non-hazardous waste with identifying the sources and way of handling accordingly to ensure all waste generated in the premise is handled properly.

Attention should be paid for effluent treatment if suppliers run any wet-processing units. For effluent discharge, legal compliance is a baseline, and suppliers should strive for excellence with adopting ZDHC Wastewater Guidelines.

https://www.roadmaptozero.com/post/updated-zdhc-wastewater-guidelines-v1-1-released

**Training and Emergency Preparedness**

Suppliers should ensure operators who deal with chemicals directly as part of their daily work are familiar with the risks and hazards such chemicals may bring to them, and hence follow accordingly on the proper work procedures and take protective/ safety measures.

Orientation, regular training and daily briefing to such operators regarding health and safety requirement and measures, and work standards are important. The Chemical Management Team should include training as part of their work plan.

Emergency preparedness is as important to be at the core of the organisation setup through establishment of emergency procedures, hardware equipment installation and regular drills. Such emergency procedures should be registered to government authorities where appropriate and communicate with employees to ensure understanding and follow up.

Hardware equipment including firefighting equipment and spare water tanks for wastewater should be in place and well maintained to minimise impact in case.

With all these setup, it is crucial to ensure employees onsite understand well what to do in case of emergency. Hence, regular drills should be conducted with performance recorded for improvement planning.

**Regular Review**

Internal audits and management reviews should be conducted to check whether the daily operation is consistent with the policy and procedures set. This is a good way to identify loopholes and rooms for improvement to be made in terms of revision of the procedures, communications, training, etc.

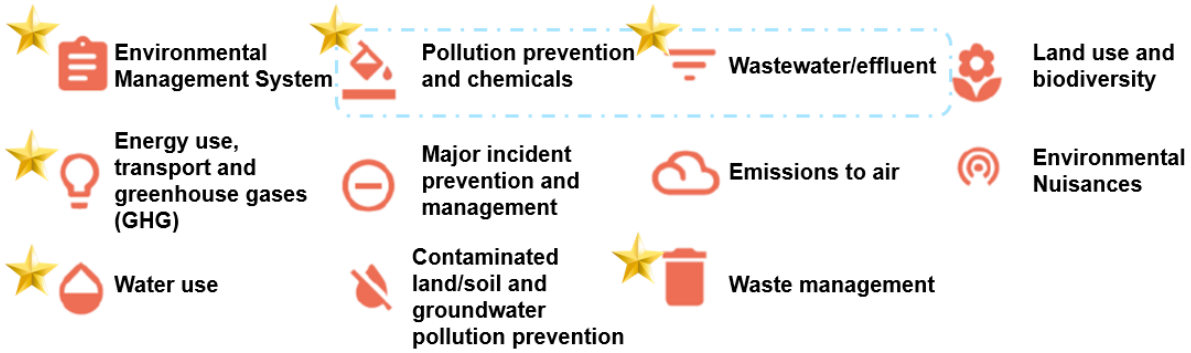
Suppliers could also consider seeking for third party certification programmes to build up robust chemical management system.

# amfori BEPI for Assessing Chemical Management Performance

amfori Business Environmental Performance Initiative (as BEPI in short) is an initiative that enables companies to respond to key environmental issues and trends and drive improvements in the supply chains via the tools provided.

TOM TAILOR as a member of amfori, has launched BEPI in the supply chain since August 2019, and this is applicable to all our suppliers and factories (production sites) (except license suppliers).

BEPI has covered a comprehensive scope of 11 Environmental Performance Areas (EPAs):




All our active Tier 1 suppliers/ factories are subjected to completion of the BEPI Self-assessment questionnaire (SAQ) which covers the above 11 EPAs and respective data collection for reflecting the environmental performances of such suppliers/ factories on a regular basis.

While the EPAs highlighted with a “star” is considered more relevant to our supply chain, average score of “Pollution Prevention and Chemicals” and “Wastewater/ Effluent” becomes the “Chem-Index” for our assessing the chemical management performance of our suppliers/ factories.

Our suppliers/ factories should hence follow this Chemical Handbook to drive changes and maintain a good management system for eventually achieving “Green” results:

| | | |
|---|---|---|
| Green | 61-100 | Considered good, or a strength |
| Yellow | 41-60 | As mediocre, and possibly a weakness |
| Red | 0-40 | As weakness |

Please refer to these links for more information about BEPI:

- BEPI Platform: https://platform.bepi-intl.org/ (Login required)
- amfori Resources Platform: https://www.amfori.org/resources

# TOM TAILOR Contacts

In case of any questions, the following persons can be contacted:

**Quality Department/ Laboratory**
Ms. Yvonne Nauheimer, yvonne.nauheimer@tom-tailor.com
Ms. Antje Majnaric, antje.majnaric@tom-tailor.com
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**CSR Department**
Ms. Claudia Landgraf, claudia.landgraf@tom-tailor.com
Ms. Tilky Wang, tilky.wang@tom-tailor.com

# APPENDIX

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## General Information

All chemical tests have to be organized by the supplier himself, and need to be done at accredited laboratories, SGS and Bureau Veritas.

All costs for tests have to be paid by suppliers.

TOM TAILOR reserves the right to ask for rechecks and random tests.

If a consignment of goods does not meet these requirements, TOM TAILOR will either reject the goods or they will be processed in Hamburg.

In both cases the respective costs incurred will be charged back to the supplier.

Test results have to be entered in PLM system and test report documents have to be uploaded as PDF file.

Partners without PLM System login account have to send all test reports to the QA testing department (heike.tober@tom-tailor.com; antje.majnaric@tom-tailor.com).

## Chemical Test Package (CTP)

The **Chemical Test Package** is a random test and for certain selected styles by TOM TAILOR Laboratory. All limits for the parameters are mentioned in the TOM TAILOR Restricted Substances List (RSL).

Test application will be requested in PLM system for all necessary articles.

# Legal Requirements

**REACh, SVHC, POP Regulation**

The European Union transposed the reform of the chemicals legislation by the European Regulation (EC) 1907/2006. This regulation is also known under the keyword "**REACh**" (Regulation for Registration, Evaluation, Authorisation and Restriction of Chemicals). Since 1st June 2007 the regulation has a direct effect in each member state of the European Union.

REACh aims at protecting health and environment through a safe handling with chemicals. For this reason it contains rules about the registration, evaluation, licence and limitation of chemicals (so-called "substances" in the regulation). The safe use of chemicals must be ensured, particularly with regard to the protection of human health and environment (ground, air, water) as certain key priorities of the REACh regulation.

Substances of very high concern (**SVHC**) are defined in Article 57 of Regulation (EC) No 1907/2006 ("the REACH Regulation") and include substances which are Carcinogenic, Mutagenic or toxic to Reproduction (CMR), meeting the criteria for classification in category 1 or 2 in accordance with Directive 67/548/EEC, Persistent, Bioaccumulative and Toxic (PBT) or very Persistent and very Bioaccumulative (vPvB) according to the criteria in Annex XIII of the REACH Regulation.

The supplied goods have to correspond to the prohibition and limitation of toxic substances as they are laid down in the Annex XVII of the Regulation(EG) 1907/2006, which can be downloaded from the following website, and which forms an essential part of this agreement:

https://echa.europa.eu/substances-restricted-under-reach

The supplied products are not allowed to include more than 0.1 % (this corresponds to 1000 mg/kg or 1000 ppm) of a substance of very high concern registered in the actual (date of delivery) **REACh-"Candidate-List"**, which can be downloaded from the following website:

http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp

The mentioned weight limit of 0.1 % refers to the weight of the respective products. In case of a compound product, the weight of each separate component is relevant (ECJ, judgment of 10. September 2015, C-106/14), for example the weight of yarn, of inlays, buttons or zippers.

The products supplied must comply with the requirements of the **POP Regulation** (EC) No. 850/2004 applicable at the time of delivery. In particular, the limit values defined in Annexes I to V must be complied with. The current version of the POP Regulation can be found under the following link:

https://eur-lex.europa.eu/legal-content/DE/ALL/?uri=uriserv:OJ.L_.2019.169.01.0045.01.DEU
and
https://eur-lex.europa.eu/legal-content/DE/TXT/PDF/?uri=CELEX:32020R0784&from=EN.

The supplier is obliged to inform himself regularly about the current version of the POP Regulation.

## TOM TAILOR RSL, MRSL and CADs RSL

The delivered products correspond in each item to applicable legal requirements and Restricted Substances List (RSL) of TOM TAILOR, the RSL is a part of each order and is enclosed.

**Shoes and bags** supplied must comply with the requirements of **CADs RSL**.
The present version can be found under the following link:

https://www.cads-shoes.com/en/rsl

The supplier is obliged to inform himself regularly about the current version of the CADs RSL.

In addition, only textile auxiliaries and colourants that comply with the limits of the **Manufacturing Restricted Substances List (MRSL)** of the Zero Discharge of Hazardous Chemicals Programme (ZDHC) in the version applicable at the time of delivery are used for the production of the goods supplied, which can be downloaded from

https://www.roadmaptozero.com/mrsl_online/

This contains the permissible pollutant concentrations for various substance groups in the chemicals used. We reserve the right to verify compliance with this requirement by submitting the chemical register and the confirmations of the chemical suppliers.

## RSL

Please find following **Restricted Substances Lists (RSL)** for TOM TAILOR.

TOM TAILOR

# RSL adults*

| Group | Substance | CAS-No. | Test Method | Test Limit each in mg/kg |
|---|---|---|---|---|
| **Dyestuffs** | | | | |
| Dyes – Azo (Forming Restricted Amines) | please see Appendix A for detailed information (new aniline) | Appendix A | Textile: EN ISO 14362-1:2017, 4-aminoazobenzene confirmation: EN ISO 14362-3:2017 ; Leather: ISO 17234-1:2015, 4-aminoazobenzene confirmation: ISO-17234-2:2011 | 20 |
| Dyes – Disperse (Sensitizing ) | please see Appendix B for detailed information | Appendix B | DIN 54231 | n.d. (detection limit 20) |
| Dyes – Carcinogenic or Equivalent Concern | please see Appendix C for detailed information | Appendix C | DIN 54231 | each 20 |
| Dyestuffs causing environmental problems (not allowed to be used during production process) | Component 1: C39H23ClCrN7O12S•2NA | 405-665-4 | DIN 54231 | n.d. ( 5 ) |
| | Component 2: C46H30CrN10O20S2•3NA | Not allocated | | |
| **Heavy Metals** | | | | |
| Total Heavy Metals | Cadmium (Cd) | 7440-43-9 | EN 16711-1 | 100 |
| | Lead (Pb) | 7439-92-1 | | 90 |
| | Mercury (Hg) | 7439-97-6 | | 0,5 |
| Chromium (VI) | Chromium VI | 18540-29-9 | ISO 17075-1:2017 , artificial aging: 24h, 80C, 10% rF | leather: 3 |
| | | | | textile: 1 |
| Nickel | Nickel release (direct and prolonged skin contact) | | EN 12471 EN 12472 / EN 1811:2011+A1:2015 | 0,5 µg/cm2/ week |
| Extractable Heavy Metal Content | Antimony (Sb) | 7440-36-0 | Extraction with artificial sweat solution (ISO 105 E04 solution II), analysis with ICP/AAS. Cr (VI) with UV/VIS | 30 |
| | Arsenic (As) | 7440-38-2 | | 1 |
| | Lead (Pb) | 7439-92-1 | | 1 |
| | Cadmium (Cd) | 7440-43-9 | | 1 |
| | Chromium (Cr) | 7440-47-3 | | textile: 2<br>leather: 100 |
| | Cobalt (Co) | 7440-48-4 | | 4 |
| | Copper (Cu) | 7440-50-8 | | 25 |
| | Nickel (Ni) | 7440-02-0 | | 4 |
| | Mercury (Hg) | 7439-97-6 | | n.d. (detection limit 0,02) |
| Heavy Metals in Packaging | Cadmium (Cd) | 7440-43-9 | In-House method; analysis by ICP; CrVI by alkaline extraction | sum 100 |
| | Lead (Pb) | 7439-92-1 | | |
| | Mercury (Hg) | 7439-97-6 | | |
| | Chromium VI | 18540-29-9 | | |

TOM TAILOR

# RSL adults*

| Group | Substance | CAS-No. | Test Method | Test Limit each in mg/kg |
|---|---|---|---|---|
| **Organic Substances** | | | | |
| Polycyclic Aromatic Hydrocarbons (PAHs) | please see Appendix D for detailed information | Appendix D | AfPS GD 2014-01 PAK, GC-MS analysis | BaP, BeP, BaA, CHR, BbF, BjF, BkF, DBA, IPY, BPE: each 0,5;<br>NAP 2;<br>sum of ANA, ANY, ANT, FLU, PHE, FLT, PYR: 10 ;<br>sum of 18 PAHs: 10 |
| Siloxane | Octamethylcyclotetrasiloxane D4 | 556-67-2 | Extraction with solvent, GC-MS | 1000 |
| | Decamethylcyclopentasiloxane D5 | 541-02-6 | | |
| | Dodecamethylcyclohexasiloxane D6 | 540-97-6 | | |
| Organotin Compounds | Tributyltin, Tricyclohexyltin, Trimethyltin, Trioctyltin, Triphenyltin, Tripropyltin | Appendix E | ISO/TS 16179 | each 1 |
| | Dibutyltin, Dimethyltin, Dioctylzinn, Diphenyltin, Monobutyltin, Monomethyltin, Monooctyltin, Monophenyltin, Tetraethyltin, Tetrabutyltin | | | each 2 |
| Phthalates | please see Appendix F for detailed information | Appendix F | ISO 14389, GC-MS analysis | sum 1000 |
| Spinning Solvents | Dimethylformamide (DMF) | 68-12-2 | headspace GC-MS | each 500 |
| | Dimethylacetamide (DMAC) | 127-19-5 | | |
| | N-methyl-2-pyrrolidone, 1-methyl-2-pyrrolidone (NMP) | 872-50-4 | | |
| Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers | Nonylphenol (NP), mixed isomers | various | Textile: ISO 18254-1<br>Leather:<br>ISO 18218-1:2015;<br>Extraction with solvent, GC-MS or LC-MS | 10 |
| | Octylphenol (OP), mixed isomers | | | 10 |
| | Octylphenol ethoxylates (OPEO) | | | sum 100 |
| | Nonylphenol ethoxylates (NPEO) | | | |
| | Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4-norylphenol, branched and linear (4-NP) | | | 1000 |
| | 4-tert-Butyl-Phenol | 98-54-4 | | 1000 |
| Perfluorinated and Polyfluorinated Chemicals (PFCs) | Perfluorooctane sulphonates (PFOS) and related substances | various | extraction with solvent, LC-MS | 1µg/m² |
| | Perfluorooctanoic acid (PFOA) and related substances | | | 0,025 |
| Formaldehyde | Formaldehyde | 50-00-0 | textile: ISO 14184-1<br>leather: ISO 17226-2 | 75 |

TOM TAILOR

RESTRICTED SUBSTANCES LIST
( RSL ) adults

TOM TAILOR

# RSL adults*

| Group | Substance | CAS-No. | Test Method | Test Limit each in mg/kg |
|---|---|---|---|---|
| Benzene | Benzene | 74-43-2 | VDA 278 | 5 |
| Quinoline | Quinoline | 91-22-5 | Extraction with THF and HPLC/MS | 50 |
| Biocides | Dimethylfumarate (DMFu) | 624-49-7 | extraction with organic solvent, GC-MS or LC-MS | 0,1 |
| | Triclosan | 3380-34-5 | | n.d. (detection limit 0,5) |
| | 2-(Thiocyanomethylthio)-Benzothioazol TCMTB | 21564-17-0 | | leather: 500 |
| | 4-Chlor-3-Methylphenol | 59-50-7 | | leather: 600 |
| | 2-Phenylphenol (OPP) | 90-43-7 | | leather: 1000 |
| | 2-Octylisothiazol-3(2H)-on | 26530-20-1 OIT | | textile: 100<br>leather: 250 |
| Chlorinated phenols | please see Appendix G for detailed information | Appendix G | Textile / Leather: LFGB § 64 BVL B82.02.8, GC-ECD analysis; Leather: ISO 17070; Polyester / Polyester-blend / printed fabric: Modified § 64 LFGB BVL B82.02.8 with alkaline digestion | each 0,5 |
| PVC | Polyvinylchloride | 9002-86-2 | Beilstein test; FTIR (if Beilstein test positive) | negative |
| Chlorinated Organic Carriers (COC) | chlorinated toluene and benzene (please see Appendix H for detailed information) | Appendix H | DIN 54232; GC-MS analysis | sum 1 |
| Glycols | please see Appendix I for detailed information | Appendix I | In house method, GC-MS analysis | n.d. (detection limit 10 ) |
| Fat Liquoring Agents | Short Chain Chlorinated Paraffin (SCCP) (C10 - C13) | 85535-84-8 | EN ISO 18219 (modified) | 250 |
| | Medium Chain Chlorinated Paraffin (MCCP) | 85535-85-9 | | 1000 |
| soluble Proteins | soluble Proteine ( from Natural rubber) | | DIN EN 455-3 (modified) Lowry method | n.d (detection limit 20 in sum) |
| Flame Retardants | please see Appendix J for detailed information | Appendix J | Requested if sample treated with flame retardants In-house method: GC-MS/GC-NPD/MS/LC-MS analysis | n.d. (detection limit 10) |

TOM TAILOR

# RSL adults*

| Group | Substance | CAS-No. | Test Method | Test Limit each in mg/kg |
|---|---|---|---|---|
| Volatile Organic Compounds (VOC) | please see Appendix K for detailed information | Appendix K | for general VOC screening: GC/MS headspace 45 minutes at 120 degrees C ; for DMAC: DIN CEN ISO/TS 16189:2013 | sum 100 |
| Pesticides | please see Appendix L for detailed information | Appendix L | in-house (solvent extract) by GC-MS anlysis | Total concentration of Pesticides < 1 |
| Asbestos | Actinolit | 77536-66-4 | Polarized light microscopy for qualitative analysis | negative |
| | Amosit | 12172-73-5 | | |
| | Anthophyllit | 77536-67-5 | | |
| | Chrysolit | 12001-29-5 | | |
| | Krokydolith | 12001-28-4 | | |
| | Tremolit | 77536-68-6 | | |
| Polychlorinated and Halogenated Biphenyls, Naphthalenes and Terphenyles | Halogenated biphenyls, including Trichlorinated or higher chlorinated Biphenyls (PCB) | Appendix M | PCB: Test method: DIN 38407 (part 2) group F, analysis by GC-EC/GC-MSD (detection limit of each: 0,01 mg/kg) PCT: Test method: In-house method, analysis by GC-ECD (detection limit of each: 1 ppm) Ugilec 141, ugilec 121 | n.d. (please see test method for detection limit) |
| | Halogenated naphthalenes, including Polychlorinated naphthalenes (PCN) | | | |
| | Halogenated terphenols, including Polichlorinated terphenyl (PCT) | | | |
| Dioxins and Furans | please see Appendix N for detailed information | Appendix N | in-house | n.d. (sum 1) |
| ph value | | | Textile: ISO 3071 Leather: ISO 4045 | 4 - 7,5 |
| Determination of Odours | No odour from mould, high boiling fraction of petrol, fish, aromatic hydrocarbons or perfume. | | Sensoric determination of odours: SNV 195 651 | 3 (tolerable odour) or below |
| only for UV Absorbers, Stabilizers | 1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one; 3-benzylidene camphor; 3-BC | 15087-24-8 | Extraction, GC-MS | 1000 |

TOM TAILOR

RESTRICTED SUBSTANCES LIST
( RSL ) BABYS, KIDS

TOM TAILOR

# RSL Babys, Kids*

| Group | Substance | CAS-No. | Test Method | Test Limit each in mg/kg |
|---|---|---|---|---|
| **Dyestuffs** | | | | |
| Dyes - Azo (Forming Restricted Amines) | please see Appendix A for detailed information (new aniline) | Appendix A | Textile: EN ISO 14362-1:2017, 4-aminoazobenzene confirmation: EN ISO 14362-3:2017 ; Leather: ISO 17234-1:2015, 4-aminoazobenzene confirmation: ISO-17234-2:2011 | 20 |
| Dyes – Disperse (Sensitizing ) | please see Appendix B for detailed information | Appendix B | DIN 54231 | n.d. (detection limit 20) |
| Dyes – Carcinogenic or Equivalent Concern | please see Appendix C for detailed information | Appendix C | DIN 54231 | each 20 |
| Dyestuffs causing environmental problems (not allowed to be used during production process) | Component 1: C39H23ClCrN7O12S•2NA | 405-665-4 | DIN 54231 | n.d. ( detection limit 5 ) |
| | Component 2: C46H30CrN10O20S2•3NA | Not allocated | | |
| **Heavy Metals** | | | | |
| Total Heavy Metals | Cadmium (Cd) | 7440-43-9 | EN 16711-1 | 40 |
| | Lead (Pb) | 7439-92-1 | | 40 |
| | Mercury (Hg) | 7439-97-6 | | 0,5 |
| Chromium (VI) | Chromium VI | 18540-29-9 | ISO 17075-1:2017 , artificial aging: 24h, 80C, 10% rF | leather: 3 |
| | | | | textile: 1 |
| Nickel | Nickel release (direct and prolonged skin contact) | | EN 12471 EN 12472 / EN 1811:2011+A1:2015 | 0,5 µg/cm2/ week |
| Extractable Heavy Metal Content | Antimony (Sb) | 7440-36-0 | Extraction with artificial sweat solution (ISO 105 E04 solution II), analysis with ICP/AAS. Cr (VI) with UV/VIS | 30 |
| | Arsenic (As) | 7440-38-2 | | 1 |
| | Lead (Pb) | 7439-92-1 | | 1 |
| | Cadmium (Cd) | 7440-43-9 | | 1 |
| | Chromium (Cr) | 7440-47-3 | | textile: 2 leather: 100 |
| | Cobalt (Co) | 7440-48-4 | | 4 |
| | Copper (Cu) | 7440-50-8 | | 25 |
| | Nickel (Ni) | 7440-02-0 | | 4 |
| | Mercury (Hg) | 7439-97-6 | | n.d. (detection limit 0,02) |
| Heavy Metals in Packaging | Cadmium (Cd) | 7440-43-9 | In-House method; analysis by ICP; CrVI by alkaline extraction | sum 100 |
| | Lead (Pb) | 7439-92-1 | | |
| | Mercury (Hg) | 7439-97-6 | | |
| | Chromium VI | 18540-29-9 | | |

*valid for Apparel



VERSION 03.2018, revised 12.2019

TOM TAILOR

# RSL Babys, Kids*

| Group | Substance | CAS-No. | Test Method | Test Limit each in mg/kg |
|---|---|---|---|---|
| **Organic Substances** | | | | |
| Polycyclic Aromatic Hydrocarbons (PAHs) | please see Appendix D for detailed information | Appendix D | AfPS GD 2014-01 PAK, GC-MS analysis | BaP, BeP, BaA, CHR, BbF, BjF, BkF, DBA, IPY, BPE: each 0,5; NAP 2; sum of ANA, ANY, ANT, FLU, PHE, FLT, PYR: 10 ; sum of 18 PAHs: 10 |
| Siloxane | Octamethylcyclotetrasiloxane D4 | 556-67-2 | Extraction with solvent, GC-MS | 1000 |
| | Decamethylcyclopentasiloxane D5 | 541-02-6 | | |
| | Dodecamethylcyclohexasiloxane D6 | 540-97-6 | | |
| Organotin Compounds | Tributyltin, Tricydohexyltin, Trimethyltin, Trioctyltin, Triphenyltin, Tripropyltin | Appendix E | ISO/TS 16179 | each 1 |
| | Dibutyltin, Dimethyltin, Dioctylzinn, Diphenyltin, Monobutyltin, Monomethyltin, Monooctyltin, Monophenyltin, Tetraethyltin, Tetrabutyltin | | | each 2 |
| Phthalates | please see Appendix F for detailed information | Appendix F | ISO 14389, GC-MS analysis | sum 300 |
| Spinning Solvents | Dimethylformamide (DMF) | 68-12-2 | headspace GC-MS | each 500 |
| | Dimethylacetamide (DMAC) | 127-19-5 | | |
| | N-methyl-2-pyrrolidone, 1-methyl-2-pyrrolidone (NMP) | 872-50-4 | | |
| Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers | Nonylphenol (NP), mixed isomers | various | | 10 |
| | Octylphenol (OP), mixed isomers | | | 10 |
| | Octylphenol ethoxylates (OPEO) | | | sum 100 |
| | Nonylphenol ethoxylates (NPEO) | | | |
| | Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4-nonylphenol, branched and linear (4-NP) | | | 1000 |
| | 4-tert-Butyl-Phenol | 98-54-4 | | 1000 |
| Perfluorinated and Polyfluorinated Chemicals (PFCs) | Perfluorooctane sulphonates (PFOS) and related substances | various | extraction with solvent, LC-MS | 1µg/m² |
| | Perfluorooctanoic acid (PFOA) and related substances | | | 0,025 |
| Formaldehyde | Formaldehyde | 50-00-0 | textile: ISO 14184-1<br>leather: ISO 17226-2 | 16 |

# RSL Babys, Kids*

| Group | Substance | CAS-No. | Test Method | Test Limit each in mg/kg |
|---|---|---|---|---|
| Benzene | Benzene | 74-43-2 | VDA 278 | 5 |
| Quinoline | Quinoline | 91-22-5 | Extraction with THF and HPLC/MS | 50 |
| Biocides | Dimethylfumarate (DMFu) | 624-49-7 | extraction with organic solvent, GC-MS or LC-MS | 0,1 |
| | Triclosan | 3380-34-5 | | n.d. (detection limit 0,5) |
| | 2-(Thiocyanomethylthio)-Benzothioazol TCMTB | 21564-17-0 | | leather: 500 |
| | 4-Chlor-3-Methylphenol | 59-50-7 | | leather: 600 |
| | 2-Phenylphenol (OPP) | 90-43-7 | | leather: 1000 |
| | 2-Octylisothiazol-3(2H)-on | 26530-20-1 OIT | | textile: 100<br>leather: 250 |
| Chlorinated phenols | Tetrachlorophenol (TeCP) | Appendix G | Textile / Leather: LFGB § 64 BVL B82.02.8, GC-ECD analysis; Leather: ISO 17070; Polyester / Polyester-blend / printed fabric: Modified § 64 LFGB BVL B82.02.8 with alkaline digestion | 0,05 |
| | Pentachlorophenol (PCP) | | | 0,05 |
| | TriCP | | | 0,05 |
| | MCP | | | sum of MCP, DCP 0,25 |
| | DCP | | | |
| PVC | Polyvinylchloride | 9002-86-2 | Beilstein test; FTIR (if Beilstein test positive) | negative |
| Chlorinated Organic Carriers (COC) | chlorinated toluene and benzene<br>(please see Appendix H for detailed information) | Appendix H | DIN 54232; GC-MS analysis | sum 1 |
| Glycols | please see Appendix I for detailed information | Appendix I | In house method, GC-MS analysis | n.d. (detection limit 10 ) |
| Fat Liquoring Agents | Short Chain Chlorinated Paraffin (SCCP) (C10 - C13) | 85535-84-8 | EN ISO 18219 (modified) | n.d. ( detection limit 50 ) |
| | Medium Chain Chlorinated Paraffin (MCCP) | 85535-85-9 | | |
| soluble Proteins | soluble Proteine ( from Natural rubber) | | DIN EN 455-3 (modified) Lowry method | n.d (detection limit 20 in sum) |
| Flame Retardants | please see Appendix J for detailed information | Appendix J | Requested if sample treated with flame retardants<br>In-house method: GC-MS/GC-NPD/MS/LC-MS analysis | n.d. (detection limit 10) |

TOM TAILOR

# RSL Babys, Kids*

| Group | Substance | CAS-No. | Test Method | Test Limit each in mg/kg |
|---|---|---|---|---|
| Volatile Organic Compounds (VOC) | please see Appendix K for detailed information | Appendix K | for general VOC screening: GC/MS headspace 45 minutes at 120 degrees C ; for DMAC: DIN CEN ISO/TS 16189:2013 | sum 100 |
| Pesticides | please see Appendix L for detailed information | Appendix L | in-house (solvent extract) by GC-MS anlysis | Total concentration of Pesticides < 1 |
| Asbestos | Actinolit | 77536-66-4 | Polarized light microscopy for qualitative analysis | negative |
| | Amosit | 12172-73-5 | | |
| | Anthophyllit | 77536-67-5 | | |
| | Chrysolit | 12001-29-5 | | |
| | Krokydolith | 12001-28-4 | | |
| | Tremolit | 77536-68-6 | | |
| Polychlorinated and Halogenated Biphenyls, Naphthalenes and Terphenyles | Halogenated biphenyls, induding Trichlorinated or higher chlorinated Biphenyls (PCB) | Appendix M | PCB: Test method: DIN 38407 (part 2) group F, analysis by GC-EC/GC-MSD (detection limit of each: 0,01 mg/kg) PCT: Test method: In-house method, analysis by GC-ECD (detection limit of each: 1 ppm) Ugilec 141, ugilec 121 | n.d. (please see test method for detection limit) |
| | Halogenated naphthalenes, including Polychlorinated naphthalenes (PCN) | | | |
| | Halogenated terphenols, including Polichlorinated terphenyl (PCT) | | | |
| Dioxins and Furans | please see Appendix N for detailed information | Appendix N | in-house | n.d. (sum 1) |
| ph value | | | Textile: ISO 3071 Leather: ISO 4045 | 4 - 7,5 |
| Determination of Odours | No odour from mould, high boiling fraction of petrol, fish, aromatic hydrocarbons or perfume. | | Sensoric determination of odours: SNV 195 651 | 3 (tolerable odour) or below |
| only for UV Absorbers, Stabilizers | 1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one; 3-benzylidene camphor; 3-BC | 15087-24-8 | Extraction, GC-MS | 1000 |

TOM TAILOR

RESTRICTED SUBSTANCES LIST
( RSL ) APPENDIX

TOM TAILOR **SUBSTANCES AND CAS NUMBERS***

| Appendix A: Azo dyes, list of carcinogenic Amines | |
|---|---|
| **Substances** | **CAS-No** |
| Biphenyl-4-ylamin, 4-aminobiphenyl xenylamine | 92-67-1 |
| Benzidine | 92-87-5 |
| 4-chloro-o-toluidine | 95-69-2 |
| 2-naphtylamine | 91-59-8 |
| o-aminoazotoluene, 4-amino-2',3-dimethylazobenzene 4-o-tolylazo otoluidine | 97-56-3 |
| 5-nitro-o-toluidine | 99-55-8 |
| 4-chloroaniline | 106-47-8 |
| 4-methoxy-m-phenylenediamine | 615-05-4 |
| 4,4'-methylenedianiline 4,4'-diaminodiphenylmethane | 101-77-9 |
| 3,3'-dichlorobenzidine 3,3'-dichlorobiphenyl-4,4'-ylenediamine | 91-94-1 |
| 3,3-dimethoxybenzidine o-dianisidine | 119-90-4 |
| 3,3-dimethylbenzidine, 4,4'-bi-o-toluidine | 119-93-7 |
| 4,4'-methylenedi-o-toluidine | 838-88-0 |
| 6-methoxy-m-toluidine p-cresidine | 120-71-8 |
| 4,4'-methylene-bis-(2-chloro-aniline) 2,2'-dichloro-4,4'-ethylenedianiline | 101-14-4 |
| 4,4'-oxydianiline | 101-80-4 |
| 4,4'-thiodianiline | 139-65-1 |
| o-toluidine, 2-aminotoluene | 95-53-4 |
| 4-methyl-m-phenylenediamine | 95-80-7 |
| 2,4,5-trimethylaniline | 137-17-7 |
| o-anisidine (2-methoxyanilin) | 90-04-0 |
| 4-amino azobenzene | 60-09-3 |
| 2,4-xylidine | 95-68-1 |
| 2,6-xylidine | 87-62-7 |
| aniline | 62-53-3 |

| Appendix B: Disperse Dyes, list of allergenic disperse dyes | |
|---|---|
| **Substances** | **CAS-No** |
| C.I. Disperse Blue 1 | 2475-45-8 |
| C.I. Disperse Blue 3 | 2475-46-9 |
| C.I. Disperse Blue 7 | 3179-90-6 |
| C.I. Disperse Blue 26 | 3860-63-7 |
| C.I. Disperse Blue 35 | 12222-75-2 |
| C.I. Disperse Blue 102 | 12222-97-8 |
| C.I. Disperse Blue 106 | 12223-01-7 |
| C.I. Disperse Blue 124 | 61951-51-7 |
| C.I. Disperse Polyester Dark Blue 35 | 56524-77-7 |
| C.I. Disperse Brown 1 | 23355-64-8 |
| C.I. Disperse Orange 1 | 2581-69-3 |
| C.I. Disperse Orange 3 | 730-40-5 |
| C.I. Disperse Orange 11 | 82-28-0 |
| C.I. Disperse Orange 37/59/76 | 12223-33-5 / 13301-61-6 |
| C.I. Disperse Orange 149 | 85136-74-9 |
| C.I. Disperse Red 1 | 2872-52-8 |
| C.I. Disperse Red 11 | 2872-48-2 |
| C.I. Disperse Red 17 | 3179-89-3 |
| C.I. Disperse Yellow 1 | 119-15-3 |
| C.I. Disperse Yellow 3 | 2832-40-8 |
| C.I. Disperse Yellow 9 | 6373-73-5 |
| C.I. Disperse Yellow 23 | 6250-23-3 |
| C.I. Disperse Yellow 39 | 12236-29-2 |
| C.I. Disperse Yellow 49 | 54824-37-2 |

| Appendix C: List of carcinogenic dyes or Equivalent Concern | |
|---|---|
| **Substances** | **CAS-No** |
| C.I. Acid Red 26 | 3761-53-3 |
| C.I Acid Violet 49 | 1694-09-3 |
| C.I Acid Red 114 | 6459-94-5 |
| C.I. Basic Blue 26 | 2580-56-5 |
| C.I. Basic Green 4 (malachite green chloride) | 569-64-2 |
| C.I. Basic Green 4 (malachite green oxalate) | 2437-29-8 |
| C.I. Basic Green 4 (malachite green) | 10309-95-2 |
| C.I. Basic Red 9 | 569-61-9 |
| C.I. Basic Violet 1 | 8004-87-3 |
| C.I. Basic Violet 3 | 548-62-9 |
| C.I. Basic Violet 14 | 632-99-5 |
| C.I. Direct Black 38 | 1937-37-7 |
| C.I. Direct Blue 6 | 2602-46-2 |
| C.I. Direct Blue 15 | 2429-74-5 |
| C.I. Direct Blue 218 | 28407-37-6 |
| C.I. Direct Brown 95 | 16071-86-6 |
| C.I. Direct Red 28 | 573-58-0 |
| C.I. Pigment Red 104 (contains lead) | 12656-85-8 |
| C.I. Pigment Yellow 34 (contains lead) | 1344-37-2 |
| C.I. Solvent Yellow 1 | 60-09-3 |
| C.I. Solvent Yellow 2 | 60-11-7 |
| C.I. Solvent Yellow 3 | 97-56-3 |
| C.I. Solvent Yellow 14 | 842-07-9 |

| Appendix D: List of PAHs | |
|---|---|
| **Substances** | **CAS-No** |
| Benzo [a]anthracen | 56-55-3 |
| Benzo [a]pyren | 50-32-8 |
| Benzo [b]fluoranthene | 205-99-2 |
| Benzo [e]pyren | 192-97-2 |
| Benzo [j]fluoranthen | 205-82-3 |
| Benzo [k]fluoranthen | 207-08-9 |
| Chrysen | 218-01-9 |
| Dibenzo[a,h]anthracen | 53-70-3 |
| 1-Methylpyrene | 2381-21-7 |
| Acenaphthene | 83-32-9 |
| Acenaphthylene | 208-96-8 |
| Anthracene | 120-12-7 |
| Benzo [ghi]perylene | 191-24-2 |
| Cyclopenta[a,d]pyrene | 27208-37-3 |
| Dibenzo[a,e]pyrene | 192-65-4 |
| Dibenzo[a,h]pyrene | 189-64-0 |
| Dibenzo[a,l]pyrene | 189-55-9 |
| Dibenzo[a,l]pyrene | 191-30-0 |
| Fluoranthene | 206-44-0 |
| Fluorene | 86-73-7 |
| Ideno[1,2,3-cd]pyrene | 193-39-5 |
| Naphthalene | 91-20-3 |
| Phenanthrene | 85-01-8 |
| Pyrene | 129-00-0 |

TOM TAILOR

## SUBSTANCES AND CAS NUMBERS*

| Appendix E: List of tin organic compounds | |
|---|---|
| Substances | CAS-No |
| Dibutyltin | 1002-53-5 |
| Dimethyltin | 753-73-1 |
| Dioctylzinn | 15231-44-4, 3542-36-7 |
| Diphenyltin | 1011-95-6 |
| Monobutyltin | 78763-54-9 |
| Monomethyltin | 23001-26-5 |
| Monooctyltin | 3091-25-6 |
| Monophenyltin | 2406-68-0 |
| Tetraethyltin | 597-64-8 |
| Tetrabutyltin | 1461-25-2 |
| Tributyltin | 56573-85-4 |
| Tricyclohexyltin | 3091-32-5 |
| Trimethyltin | 1066-45-1 |
| Trioctyltin | 2587-76-0 |
| Triphenyltin | 892-20-6 |
| Tripropyltin | 2279-76-7 |

| Appendix F: List of the Phthalates | |
|---|---|
| Substances | CAS-No |
| 1,2-Benzenedicarboxylic acid- dihexylester branched & linear | 68515-50-4 |
| 1,2-Benzenedicarboxylic acid, dipentylester, branched and linear | 84777-06-0 |
| Bis-(2-methoxy-ethyl) phthalate (BMEP) | 117-82-8 |
| Butyl-benzyl phthalate (BBP) | 85-68-7 |
| Di (C7-C11 alkyl) phthalate Linear and branched (DHNUP) | 68515-42-4 |
| Di-(2-ethyl-hexyl) phthalate (DEHP) | 117-81-7 |
| Di-(C6-C8 alkyl) phthalate Branched (DIHP) | 71888-89-6 |
| Di-butyl phthalate (DBP) | 84-74-2 |
| Di-C6-C10 alkyl ester, 1,2-Benzenedicarboxylic acid, mixed decyl-, | 68648-93-1 |
| Di-cyclohexyl phthalate (DCHP) | 84-61-7 |
| Diethyl phthalate (DEP) | 84-66-2 |
| Di-Iso-butyl phthalate (DIBP) | 84-69-5 |
| Di-Iso-Decyl Phthalate (DIDP) | 26761-40-0, 68515-49-1 |
| Di-Iso-hexylphthalate | 71850-09-4 |
| Di-Iso-nonyl phthalate (DINP) | 28553-12-0 |
| Di-Iso-octyl phthalate (DIOP) | 27554-26-3 |
| Di-Iso-pentyl phthalate (DIPP) | 605-50-5 |
| Dimethyl phthalate (DMP) | 131-11-3 |
| Di-n-hexyl phthalate (DHP) | 84-75-3 |
| Di-n-octyl phthalate (DNOP) | 117-84-0 |
| Dinonyl phthalate (DNP) | 84-76-4 |
| Di-n-propyl phthalate (DPRP) | 131-16-8 |
| Di-pentyl phthalate (DPP) | 131-18-0 |
| N-pentyl-iso-pentyl phthalate (PIPP) | 776297-69-9 |

| Appendix G: List of Chlorinated phenols | |
|---|---|
| Substances | CAS-No |
| 2-chlorophenol | 95-57-8 |
| 3-chlorophenol | 108-43-0 |
| 4-chlorophenol | 106-48-9 |
| 2,3-dichlorophenol | 576-24-9 |
| 2,4-dichlorophenol | 120-83-2 |
| 2,5-dichlorophenol | 583-78-8 |
| 2,6-dichlorophenol | 87-65-0 |
| 3,4-dichlorophenol | 95-77-2 |
| 3,5-dichlorophenol | 591-35-5 |
| Pentachlorophenol (PCP) | 87-86-5 |
| 2,3,4,5-tetrachlorophenol | 4901-51-3 |
| 2,3,4,6-tetrachlorophenol | 58-90-2 |
| 2,3,5,6-tetrachlorophenol | 935-95-5 |
| 2,3,4-trichlorophenol | 15950-66-0 |
| 2,3,5-trichlorophenol | 933-78-8 |
| 2,3,6-trichlorophenol | 933-75-5 |
| 2,4,5-trichlorophenol | 95-95-4 |
| 2,4,6-trichlorophenol | 88-06-2 |
| 3,4,5-trichlorophenol | 609-19-8 |

| Appendix H: List of chlorinated Benzenes and Toluenes (COC) | |
|---|---|
| Substances | CAS-No |
| alfa, 2,4-trichlorotoluene | 94-99-5 |
| alfa, 2,6-trichlorotoluene | 2014-83-7 |
| alfa, 3,4-trichlorotoluene | 102-47-6 |
| alpha, alpha, 2,6-tetrachlorotoluene | 81-19-6 |
| alpha, alpha, alpha, 2,-tetrachlorotoluene | 2136-89-2 |
| alpha, alpha, alpha, 4-tetrachlorotoluene | 5216-25-1 |
| Benzotrichloride | 98-07-7 |
| Chlorobenzene | 108-90-7 |
| 2-chlorotoluene | 95-49-8 |
| 3-chlorotoluene | 108-41-8 |
| 4-chlorotoluene | 106-43-4 |
| 1,2-Dichlorobenzene | 95-50-1 |
| 1,3-Dichlorobenzene | 541-73-1 |
| 1,4-Dichlorobenzene | 106-46-7 |
| 2,3-dichlorotoluene | 32768-54-0 |
| 2,4-dichlorotoluene | 95-73-8 |
| 2,5-dichlorotoluene | 19398-61-9 |
| 2,6-dichlorotoluene | 118-69-4 |
| 3,4-dichlorotoluene | 95-75-0 |
| 3,5-dichlorotoluene | 25186-47-4 |
| Hexachlorobenzene | 118-74-1 |
| Pentachlorobenzene | 608-93-5 |
| 2,3,4,5,6-pentachlorotoluene | 877-11-2 |
| Tetrachlorobenzene | 12408-10-5 |
| 1,2,3,4-tetrachlorobenzene | 634-66-2 |
| 1,2,3,5-tetrachlorobenzene | 634-90-2 |
| 1,2,4,5-tetrachlorobenzene | 95-94-3 |
| 1,2,3-Trichlorobenzene | 87-61-6 |
| 1,2,4-trichlorobenzene | 120-82-1 |
| 1,3,5-Trichlorobenzene | 108-70-3 |
| 2,3,6-trichlorotoluene | 2077-46-5 |
| 2,4,5-trichlorotoluene | 6639-30-1 |
| added to Appendix H: | Benzylchloride | 100-44-7 |

| Appendix I: List of Glycol Ethers | |
|---|---|
| Substances | CAS-No |
| 2-ethoxyethanol | 110-80-5 |
| 2-ethoxyethyl acetate | 111-15-9 |
| 2-methoxyethanol | 109-86-4 |
| 2-methoxyethylacetate | 110-49-6 |
| 2-methoxypropylacetate | 70657-70-4 |
| Bis(2-methoxyethyl)-ether | 111-96-6 |
| Ethylene glycol dimethyl ether | 110-71-4 |
| Triethylene glycol dimethyl ether | 112-49-2 |

| Appendix J: List of Flame Retardants | |
|---|---|
| Substance | CAS No. |
| 2,2-bis(bromomethyl)-1,3-propanediol (BBMP) | 3296-90-0 |
| Bis(2,3-dibromopropyl)phosphate (BIS) | 5412-25-9 |
| Boric Acid | 10043-35-3, 11113-50-1 |
| Decabromodiphenyl ether (DecaBDE) | 1163-19-5 |
| Hexabromocyclodecane (HBCDD) | 3194-55-6 |
| Octabromodiphenyl ether (OctaBDE) | 32536-52-0 |
| Pentabromodiphenyl ether (PentaBDE) | 32534-81-9 |
| Polybromobiphenyls (PBB) | 59536-65-1 |
| Tetrabromobisphenol A (TBBPA) | 79-94-7 |
| Tris(1,3-dichloro-isopropyl) phosphate (TDCP) | 13674-87-8 |
| Tris(2-chloro-1-methylethyl) phosphate (TCPP) | 13674-84-5 |
| Tris(1-aziridinyl)phosphine oxide) (TEPA) | 545-55-1 |
| Tris(2-chloroethyl)phosphate (TCEP) | 115-96-8 |
| Tris(2,3,-dibromopropyl)-phosphate (TRIS) | 126-72-7 |

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## SUBSTANCES AND CAS NUMBERS*

| Appendix K: Volatile Organic Compounds (VOC) | |
|---|---|
| **Substances** | **CAS-No** |
| Chloroform | 67-66-3 |
| Methylenchloride | 75-09-2 |
| cis-1,2-Dichloroethylene | 156-59-2 |
| trans-1,2-Dichloroethylene | 156-60-5 |
| 1,2-Dichloroethane | 107-06-2 |
| 1,1-Dichloroethane | 75-34-3 |
| 1,1-Dichloroethylene | 75-35-4 |
| Pentachloroethane | 76-01-7 |
| Tetrachlorethylene | 127-18-4 |
| 1,1,1,2-Tetrachloroethane | 630-20-6 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 |
| Tetrachloromethane | 56-23-5 |
| Trichlorethylene | 79-01-6 |
| 1,1,2-Trichloroethane | 79-00-5 |
| 1,1,1-trichloroethane | 71-55-6 |
| 2-ethoxyethanol | 110-80-5 |
| 2-ethoxyethyl acetate | 111-15-9 |
| 2-methoxyethanol | 109-86-4 |
| 2-methoxyethylacetate | 110-49-6 |
| 2-methoxypropylacetate | 70657-70-4 |
| Bis(2-methoxyethyl)-ether | 111-96-5 |
| Acetophenone | 98-86-2 |
| Acrylamid | 79-06-1 |
| Benzene | 71-43-2 |
| Cyclohexanone | 108-94-1 |
| Ethylbenzene | 100-41-4 |
| Formamide | 75-12-7 |
| m-Cresol | 108-39-4 |
| Methyl-ethyl ketone | 78-93-3 |
| Moschusxylol | 81-15-2 |
| o-Cresol | 95-48-7 |
| p-Cresol | 106-44-5 |
| 2-phenyl-2-propanole | 617-94-7 |
| Styrene | 100-42-5 |
| Toluene | 108-88-3 |
| 1,2,3-trichloropropane | 96-18-4 |
| Xylene | 1330-20-7 |

| Appendix L: List of Pesticides | | | | | |
|---|---|---|---|---|---|
| **Substance** | **CAS No.** | **Substance** | **CAS No.** | **Substance** | **CAS No.** |
| 2,4,5-T | 93-76-5 | Dieldrine | 60-57-1 | Monocrotophos | 6923-22-4 |
| 2, 4-D | 94-75-7 | Dimethoate | 60-51-5 | Parathion | 56-38-2 |
| Azinophosmethyl | 86-50-0 | Dinoseb and salts | 88-85-7 | Parathion-methyl | 298-00-0 |
| Azinophosethyl | 2642-71-9 | Endosulfane α- | 115-29-7 | Phosdrin/Mevinphos | 7786-34-7 |
| Aldrine | 309-00-2 | Endosulfane β- | 33213-65-9 | Propethamphos | 31218-83-4 |
| Bromophos-ethyl | 4824-78-6 | Endrine | 72-20-8 | Profenophos | 41198-08-7 |
| Captafol | 2425-06-1 | Esfenfalerate | 66230-04-4 | Quinalphos | 13593-03-8 |
| Carbaryl | 63-25-2 | Fenvalerante | 51630-58-1 | Toxaphene | 8001-35-2 |
| Chlordane | 57-74-9 | Heptachlor | 76-44-8 | Trifluralin | 1582-09-8 |
| Chlordimeform | 6164983 | Heptachlorepoxide | 1024-57-3 | Isodrine | 465-73-6 |
| Chlorfenvinphos | 470-90-6 | Hexachlorobenzene | 118-74-1 | Kelevane | 4234-79-1 |
| Coumaphos | 56-72-4 | Hexachlorcyclohexane α- | 319-84-6 | Kepone | 143-50-0 |
| Cyfluthrin | 68359-37-5 | Hexachlorcyclohexane β- | 319-85-7 | Perthane | 72-56-0 |
| Cyhalothrin | 91465-08-6 | Hexachlorcyclohexane δ- | 319-86-8 | Strobane | 8001-50-1 |
| Cyprmethrin | 52315-07-8 | Lindane | 58-89-9 | Telodrine | 297-78-9 |
| DEF | 78-48-8 | Malathion | 121-75-5 | 2-(2,4,5-trichlorophenoxy) propionic acid, its salts and compounds | 93-72-1 |
| Deltamethrin | 52918-63-5 | MCPA | 94-74-6 | Hexachlorocyclohexane (HCH, all isomers(except gammahexachloro-Cyclohexane | 608-73-1 |
| DDD | 53-19-0, 72-54-8 | MCPB | 94-81-5 | Quintozene | 82-68-8 |
| DDE | 3424-82-6 72-55-9 | Mecoprop | 93-65-2 | Halogenated terphenols | various |
| Diazinon | 333-41-5 | Metamidophos | 10265-92-6 | Halogenated naphtalenes | various |
| Dichlorprop | 120-36-2 | Methoxychlor | 72-43-5 | Halogenated diarylalkanes | various |
| Dicrotophos | 141-66-2 | Mirex | 2385-85-5 | Halogenated diphenyl | various |
| Dichloro-diphenyl-trichloro ethane DDT | 50-29-3 789-02-6 | Hexabromobiphenyl | 36355-0-18 | Endosulfan | 959-98-8 |
| Monomethyl-dibromo-diphenyl methane | 99688-47-8 | Monomethyl-dichloro-diphenyl methane | 81161-70-8 | Monomethyl-tetrachloro-diphenyl methane | 76253-60-6 |

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**SUBSTANCES AND CAS NUMBERS***

| Appendix M: Polychlorinated Biphenyls (PCB), Naphthalenes (PCN) and Terphenyles (PCT) such as | |
|---|---|
| **Substance** | **CAS No.** |
| PCB | 1336-36-3 |
| PCT | 61788-33-8 |

| Appendix N: List of Dioxins and Furans: | | | | | |
|---|---|---|---|---|---|
| **Substance** | **CAS No.** | **Substance** | **CAS No.** | **Substance** | **CAS No.** |
| **Group 1:** | | **Group 2:** | | | |
| 2,3,7,8-Tetrachlorid-benzo-p-dioxin | 1746-01-6 | 1,2,3,4,7,8-Hexachloridbenzo-p-dioxin | 39227-28-6 | | |
| 1,2,3,7,8-Penta-chloridbenzo-p-dioxin | 40321-76-4 | 1,2,3,7,8,9-Hexachloridbenzo-p-dioxin | 19408-74-3 | | |
| 2,3,7,8-Tetrachlor-di-benzofuran | 51207-31-9 | 1,2,3,6,7,8-Hexachloridbenzo-p-dioxin | 57653-85-7 | | |
| 2,3,4,7,8-Pentachloridbenzofuran | 57117-31-4 | 1,2,3,7,8-Pentachloridben furan | 57117-41-6 | | |
| | | 1,2,3,4,7,8-Hexachlordibenzofuran | 70648-26-9 | | |
| | | 1,2,3,7,8,9-Hexachlordibenzofuran | 72918-21-9 | | |
| | | 1,2,3,6,7,8,-Hexachlordibenzofuran | 57117-44-9 | | |
| | | | 60851-34-5 | | |
| **Group 3:** | | **Group 4:** | | **Group 5:** | |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin | 60851-34-5 | 2,3,7,8-Tetrabromodibenzo-p-dioxin | 50585-41-6 | 1,2,3,4,7,8-Hexabromodibenzo-p-dioxin | 11099-44-5 |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin | 35822-46-9 | 1,2,3,7,8-Pentabromodibenzo-p-dioxin | 109333-34-8 | 1,2,3,7,8,9-Hexadibromodibenzo-p-dioxin | 110999-46-7 |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran | 3268-87-9 | 2,3,7,8-Tetrabromodibenzofuran | 6733-57-7 | 1,2,3,6,7,8-Hexadibromodibenzo-p-dioxin | 110999-45-6 |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran | 67562-39-4 | 2,3,4,7,8-Pentabromodibenofuran | 131166-92-2 | 1,2,3,7,8-Pentabromodibenzofuran | 107555-93-1 |
| 1,2,3,4,6,7,8,9-Octachlordibenzofuran | 55673-89-7 | | | | |
| | 39001-02-0 | | | | |

## COMMITMENT TO COMPLYING WITH
## TOM TAILOR CHEMICAL MANAGEMENT PROGRAMME

I hereby confirm that:

1. We have received, read and thoroughly understood the **TOM TAILOR Chemical Management Handbook, Version 2.0 (August 2020)**, including Chemical Management System setup guidance, and the latest version of REACh, POP requirements and MRSL/ RSL.

2. We acknowledge that compliance with the TOM TAILOR Chemical Management programme is a contractual obligation and undertaking, accordingly, to meet the Chemical requirements in all orders involving production, marketing and/ or distribution placed by any of the format of the TOM TAILOR.

3. We undertake to disclose and formally demand TOM TAILOR Chemical Management requirement implications to the whole supply chain of production including but not limited to production facilities, sub-contractors, sub-processors and wet processing units, etc. relevant entities.

4. The TOM TAILOR:
    a. Reserves the right to check: 1) compliance with TOM TAILOR Chemical Management requirement regarding any goods supplied, by any method, at any time, and/ or at any stage of the production, marketing or distribution processes, and 2) the appropriate disclosure of Chemical Management.
    b. Reserves the right to cancel any order for any goods where non-compliance with TOM TAILOR Chemical Management Programme/ requirement regarding any test and/ or inspection carried out pursuant to the printout has been established.
    c. Reserves the right to cancel or destroy, or to order destruction of the goods subject to the cancelled order, subject to the fact that the cancellation of the relevant order shall entail the non-existence of the obligation to pay any sum whatsoever for the goods failing to comply with TOM TAILOR Chemical Management Programme/ requirement.
    d. Holds the Supplier as solely responsible for any and all damages caused by the goods failing to comply with TOM TAILOR Chemical Management Programme/ requirement.
    e. Reserves the right to stop business with the Supplier whenever the cases of non-compliance to the TOM TAILOR Chemical Management Programme/ requirement occurs more than 3 times in a year.

| | |
|---|---|
| Place, Date: | Name and position of the signatory in bold letters: |
| _____ | _____ |
| Name of the Company in bold letters: | Signature, Company stamp: |