



**STeP**

# Standard OEKO-TEX<sup>®</sup> STeP

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OEKO-TEX<sup>®</sup>  
International Association for Research and Testing in  
the Field of Textile and Leather Ecology.  
國際環保紡織及皮革協會

OEKO-TEX Service GmbH  
Genferstrasse 23, CH-8002 Zurich  
+41 44 50126 00  
[www.oeko-tex.com](http://www.oeko-tex.com)



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### Editor

OEKO-TEX® Service Ltd.  
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## 1 Purpose

The OEKO-TEX® STeP standard is part of the testing, certification and licensing products offered by the OEKO-TEX® Service Ltd. (OEKO-TEX®). Further information on the product portfolio can be found on the OEKO-TEX® website ([www.oeko-tex.com](http://www.oeko-tex.com)). A list of OEKO-TEX® approved institutes (Institute) can also be found there as well as in Annex 1.

The OEKO-TEX® STeP standard (Standard) is a normative document that defines the technical conditions for the certification of production facilities throughout the entire textile and leather production chain and for the licensing of the OEKO-TEX® STeP trademark. The applicable Terms of Use (ToU) for all OEKO-TEX® products (standards) as defined in Annex II also apply.

The objective of STeP certification is the permanent implementation of environmentally friendly production processes, optimal health and safety protection and socially responsible working conditions. STeP certification offers a comprehensive analysis and assessment regarding sustainable production conditions. This includes the support of the production facilities in measuring and sustainably improving their environmental performance, health and safety performance and social responsibility, as well as transparent disclosure of these points to the industry and consumers.

## 2 Applicability

The OEKO-TEX® STeP standard can be applied for the certification of production facilities throughout the entire textile and leather production chain. For textiles this includes production facilities in every processing stage, from the production of fibres (non-agricultural) to spinning mills, weaving mills and knitting mills to finishing facilities, as well as manufacturers of ready-made clothes, textile logistics centres and manufacturers of accessories, foams and mattresses. For leather this includes production facilities from the beamhouse to tanning, retanning, dyeing, fatliquoring and finishing facilities, as well as making up of leather, leather logistics centres and manufacturers of accessories.

OEKO-TEX® STeP assesses the performance of production facilities for the entire textile production chain, including:

- Spinning, twisting, special yarn production, winding, assembling etc.
- Wet spinning
- Weaving, knitting, production of non-woven, felting, tufting, embroidering etc.

## 目的

OEKO-TEX® STeP 標準作為檢測、認證和授權許可的一部分，由 OEKO-TEX® Service Ltd. (OEKO-TEX®) 提供。有關產品組合的詳細信息，請訪問 OEKO-TEX® 網站 ([www.oeko-tex.com](http://www.oeko-tex.com))。在網站及附錄 1 中，可查看 OEKO-TEX® 成員機構列表。

OEKO-TEX® STeP standard (標準) 是規範性文件，規定了整個紡織和皮革生產鏈中的工廠認證以及 OEKO-TEX® STeP 商標許可的技術條件。附錄 II 及附錄 I 中規定的適用於所有 OEKO-TEX® 產品 (標準) 的使用條款 (ToU) 和行為準則 (CoC) 也同樣適用。

STeP 認證的目的是實現永久的環保生產工藝、優化健康與安全保護，促進負有社會負責的工作條件。STeP 認證對可持續的生產條件進行全面分析和評估。這包括支持生產工廠測量並可持續地改善其環境績效、健康與安全績效和社會責任以及將這些要點透明地披露給行業和消費者。

## 適用範圍

OEKO-TEX® STeP 標準適用於整個紡織品和皮革生產鏈中生產工廠的認證。對於紡織品，包括從非農業纖維生產、紡紗、梭織針織生產到後整理和服裝成品製造商、紡織品物流中心以及輔料、泡綿和床墊製造商每個生產階段的生產工廠。對於皮革，包括從浸灰間到鞣製、復鞣、染色、加脂和後整理工廠等生產工廠，以及皮革製成、皮革物流中心和輔料製造商。

OEKO-TEX® STeP 評估整個紡織品生產鏈中生產工廠的績效，包括：

- 紡紗、加捻、特種紗生產、絡筒、撚線等
- 濕紡
- 梭織、針織、無紡布生產、制氈、簇絨、刺繡等



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- Pretreatment, dyeing, printing, finishing, coating, industrial washing/laundry etc.
- Making up of products
- Manufacturing of accessories
- Manufacturing of foams and mattresses
- Textile logistics
- Others

OEKO-TEX® STeP assesses the performance of production facilities for the entire leather production chain, including:

- Beamhouse
- Tanning
- Retanning, dyeing, fatliquoring
- Finishing of leather
- Making up of leather products
- Manufacturing of accessories
- Leather logistics
- Others

This standard is intended to be applied to facilities (production facilities) for specific textile and leather products (see DIN 60000 “Textiles, basic terms and definitions” and DIN EN 15987 “Key definitions for the leather trade”), their intermediate products, accessory parts and logistics centres. Also other production facilities that are connected to textile/leather industry or producing materials used in the textile/leather industry like e.g. shoes, foams, etc. may be certified according to OEKO-TEX® STeP. In any case the whole facility within the scope of STeP shall be certified. Consideration of only parts or single production lines within a production site is not permitted.

Producers of hides or leather materials which are excluded according to the OEKO-TEX® LEATHER STANDARD are not eligible to apply for STeP.

Further details regarding the different types of operation can be found in the OEKO-TEX® MADE IN GREEN Standard.

## 3 OEKO-TEX® STeP trademark

### 3.1 Content and statement

**Sustainable Textile & Leather Production** OEKO-TEX® STeP is an independent certification system for manufacturers, retail companies and manufacturers from the textile and leather chain who want to communicate their achievements regarding sustainable production of their supply chain to the public in a transparent, credible and clear manner.

- 前處理、染色、印花、後整理、塗層、工業清洗/洗衣等。
- 產品製成
- 輔料的生產
- 泡綿和床墊的生產
- 紡織品物流
- 其他

OEKO-TEX® STeP 評估整個皮革生產鏈中生產工業區的績效，包括：

- 浸灰
- 鞣製
- 復鞣，染色，加脂
- 皮革整理
- 皮革產品縫製
- 輔料配件的生產
- 皮革物流
- 其他

本標準適用於特定紡織品和皮革產品（參見 DIN 60000“紡織品、基本術語和定義”和 DIN EN 15987“皮革貿易的關鍵定義”）及其中間產品、輔料的工廠（生產工廠）和物流中心。在任何情況下，STeP 範圍內的整個工廠都應獲得認證。僅考慮生產工廠內的單個部分或單條生產線是不允許的。

OEKO-TEX® LEATHER STANDARD 不可認證的獸皮或皮革材料生產商，也不符合申請 STeP 認證的條件。

有關不同生產類型的更多詳細信息，請參閱 OEKO-TEX® MADE IN GREEN 標準。

## OEKO-TEX® STeP 商標

### 內容和聲明

**可持續 紡織品和皮革生產** OEKO-TEX® STeP 認證是一套獨立的認證系統，面向希望以透明、可信和清晰的方式向公眾宣傳其供應鏈可持續生產成就的製造商、零售公司以及紡織和皮革鏈製造商。



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OEKO-TEX® STeP evaluates, tests and certifies the following modules in the textile and leather production chain:

- Chemical Management
- Environmental Performance
- Environmental Management
- Social Responsibility
- Quality Management
- Health and Safety

To qualify for certification in accordance with OEKO-TEX® STeP, production facilities must meet the necessary criteria in the modules mentioned above. Various ratings that are updated in regular intervals can be achieved, based on the performance classes defined in the standard.

Thanks to its modular analysis system, STeP certification can comprehensively and reliably analyse the extent to which production and logistics facilities operate in a sustainable, environmentally friendly and socially responsible manner.

To ensure the necessary level of transparency and comparability, the same STeP criteria applies worldwide. Through dynamic ongoing development, the criteria are regularly analysed, reassessed and, if needed, updated, for instance, to take new market developments, legal provisions and scientific findings into account.

To attain certification in accordance with this standard and receive permission to use the OEKO-TEX® STeP trademark, production facilities must meet the necessary criteria in all the specified fields of activity (modules).

The criteria are expressed in shall or should. The use of "shall" in the standard document indicates an obligation and identifies all criteria that must be fulfilled in order to achieve certification. The use of "should" in this standard indicates requirements that reflect a recommendation for continuous improvement.

The OEKO-TEX® STeP trademark is a mark (label, logo, word mark) for textile and leather production facilities that have been certified in accordance with the technical conditions in this standard.

The terms and conditions for licensing and trademark use are governed by the Terms of Use (ToU).

### 3.2 Licensing

The OEKO-TEX® STeP trademark is comprehensively protected under trademark law. Registrations of this label exist as a trademark on a worldwide basis. To strengthen its legal protection, not only is the label itself protected, but the word marks OEKO TEX, OEKOTEX and ÖKO-TEX and

OEKO-TEX® STeP 對紡織品和皮革生產鏈中的以下模塊進行評估、測試和認證：

- 化學品管理
- 環境績效
- 環境管理
- 社會責任
- 質量管理
- 健康和安全

要獲得 OEKO-TEX® STeP 的認證資格，生產工廠必須符合上述模塊中的必要準則。基於標準中定義的績效等級，可以獲得定期更新的各種評級。

得益於其模塊化分析系統，STeP 認證可全面、可靠地分析生產和物流工廠以可持續、環保和對社會負責的方式營運的程度。

為確保必要的透明度和可比性，STeP 標準全球統一。通過動態持續開發，對標準進行定期分析、重新評估並在需要時進行更新，例如開拓新市場的需求、法律規定和科學發現的考慮。

要獲得本標準的認證並獲得使用 OEKO-TEX® STeP 商標的許可，生產工廠必須符合所有指定活動領域（模組）中的必要準則。

標準以 "應" 或 "應當" 表示。在標準文件中使用 "應" 表示一種義務，並確定為獲得認證必須滿足的所有標準。本標準中使用 "應當" 表示要求，反映了對持續改進的建議。

OEKO-TEX® STeP 商標是紡織品和皮革生產工廠的標誌（標籤、徽標、文字標記），這些生產工廠已根據本標準的技術條件進行認證。

使用條款(ToU)中規定了授權許可和使用商標的條款和條件。

#### 授權許可

OEKO-TEX® STeP 標籤同商標一樣，受商標法的全體保護。在全世界範圍內，該標籤已申請或註冊為商標。為加強法律保護，不僅該標籤本身，而且文字標籤 OEKO TEX、OEKOTEX 和 ÖKO-TEX，及其標誌的不同組成部分，比如徽標、地球元素，都受到獨立保護。



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various design elements such as the logo and globe are also separately protected.

The OEKO-TEX® STeP trademark may be used only by those authorised to do so. The prerequisite for licensing is the issuing of a certificate in accordance with the conditions specified in this standard. The licence is issued with the handover of the certificate from the testing OEKO-TEX® institute to the customer.

### 3.3 Trademark use

To use the OEKO-TEX® STeP trademark, the regulations contained in the ToU and principles and illustrations shown in Annex 2 must be complied with. The use of the trademark in any other type or form is explicitly not allowed.

Even the omission of individual elements of the trademark is strictly forbidden. In particular, the details regarding the certificate number and the Institute are mandatory and must match the corresponding certificate.

These obligations are essential. Any violation of them results in the immediate withdrawal of the certificate and of the licence to use the trademark.

## 4 Defining the modules

### 4.1 Chemical Management

The chemical management module deals with chemicals and their specific properties. Its most important aspects are the detection and prevention of any potentially negative effects of chemicals in the produced products and on the environment and the dangers arising when they are used. Particular attention is paid to how chemical hazards and risks can be minimised and ideally avoided. The module overlaps with other OEKO-TEX® STeP modules in many ways, sharing many of their issues and influences, particularly the “environmental performance” and “health and safety” modules.

#### 4.1.1 Purpose

Chemicals are needed in most processes in textile and leather production. They can be used for the following purposes (among others):

- Dyeing and printing
- Finishing: for instance, by applying specifically and specially developed finishes on textiles and leather to achieve certain features such as crease-resistant, easy-care, water-repellent, softening, flame-retardant, hygienic, dirt-repellent or mosquito-repellent properties, etc.
- Pre-treatment and scouring: for instance, removing undesired by-products and stains (bleaching, washing, cleaning)

OEKO-TEX® STeP 商標僅供已授權的主體用於已授權的用途。在授權許可前，需先根據本標準文件中指定的條件頒發證書。OEKO-TEX® 檢測機構向申請人頒發證書的同時授權許可。

### 商標使用

應按照附錄 2 中的原則和圖示使用 OEKO-TEX® STeP 商標。不允許以其他類型或形式使用該商標。

嚴厲禁止缺省商標的任何一部分。具體而言，證書編號和認證機構為強制性內容，且必須與對應證書一致。

這些義務非常重要。任何違反這些義務的行為都會導致證書和商標使用許可被立刻吊銷。

## 定義模塊

### 化學品管理

化學品管理模塊涉及化學品及其特定屬性。其最重要的方面是檢測並預防所生產產品中化學品的任何潛在負面影響以及它們在使用過程中對環境造成的影響和產生的危害。其特別注重如何最大程度減小並很好地避免化學危害和風險。該模塊在很多方面與其他 OEKO-TEX® STeP 模塊（特別是“環境績效”和“健康與安全”模塊）重疊，共享當中的許多問題和影響。

### 目的

大多數生產紡織品和皮革的工藝都需要使用化學品。它們可用於以下目的（不限於以下所列）：

- 染色與印花
- 後整理：例如，通過在紡織品和皮革上施用特定專門開發的整理劑來實現某些特徵，例如防皺、易護理性、防水、柔軟、阻燃、衛生、防污或防蚊特性等
- 預處理和煮煉：例如，通過漂白、水洗、清潔過程去除不需要的副產品和污漬



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- Lubrication and sizing: for instance, the introduction of special physical properties to ensure that the textiles are suitable for later processes and do not become damaged or destroyed
- Colour fastness and improving physical and physical-chemical properties: for instance, to reduce pilling
- Correcting faulty production: for instance, stripping off dyes
- Protecting textiles and leather from the influence of micro-organisms, ultraviolet light, chlorine, etc.
- 潤滑和上漿：例如，引入特殊的物理特性，以確保紡織品適用於後期工藝而不會損壞或毀壞
- 色牢度以及改善物理和理化特性：例如，以減少起球
- 校正故障生產：例如剝離染料
- 保護紡織品和皮革免受微生物、紫外線、氯等的影響

In addition, chemicals that are used in the production facilities for other purposes should be controlled:

- Maintenance, cleaning and operation of installations, machines, equipment, products and other goods
- Treatment of wastewater and air emission
- Reagents for use in internal laboratory tests
- Chemicals used in industrial laundries are also of concern like washing detergents, acids, bleaching agents (e.g. Javel, Hydrogen Peroxide) and anti-bacteria auxiliaries etc.

Chemicals may be used for a wide variety of purposes for adding value in a facility. For a chemical to be defined as “effective for a specific purpose”, it shall have positive properties that surpass its potential hazardous properties and the dangers associated with them.

A chemical management system (CMS) is the preferred method for providing risk management for a facility in relation to the special properties of chemicals, and for establishing conclusions and consequences based on the sourcing, receipt, storage, use, application and disposal of chemicals. A chemical management system should ensure that the produced and treated products are safe for the end consumer. To do so, a hazard evaluation system must be used that works based on the principles of “Know, assess and optimise”. The CMS is an indication of the awareness of the chemicals used in a facility and their intended use. The facility has an evaluation system for determining the hazards and risks of the chemicals used and uses this evaluation as the basis for determining the various risks of chemicals that are used for similar areas of application. The CMS should enable the company to respond quickly and appropriately to changes in relation to the legal and ethical framework conditions of chemicals for the production facility and the market.

A chemical management system fulfils its purpose if it covers the following issues:

- Company policy regarding chemicals

此外，應對生產工廠中用於其他目的的化學品進行控制：

- 設施、機器、設備、產品和其他物品的維護、清潔和操作
- 廢水和廢氣排放的處理
- 用於內部實驗室檢測的試劑
- 工業洗衣房使用的化學物質也值得關注，如洗滌劑、酸、漂白劑（如 Javel、雙氧水）和抗菌助劑等。

化學品可用於多種能增加工廠價值的目標。對於被定義為「適用於特定目的」的化學品，它的優點必須超過其潛在的危險性以及與之相關聯的危害。

化學品管理系統 (CMS) 是針對化學品的特殊屬性為工廠提供風險管理的首選方法，也是根據化學品的來源、接收、儲存、使用、應用和處置來確定結論和後果的首選方法。化學品管理系統應確保生產和處理的產品對最終消費者是安全的。為此，必須根據“了解、評估和優化”的原則使用危害評估系統。化學品安全管理系統 (CMS) 顯示了工廠對所使用化學品及其預期用途的認識。工廠有一套評估系統來確定所使用化學品的危害和風險，並以此為基礎來確定用於類似應用領域的化學品的各種風險。化學品安全管理系統應使公司能夠對生產設施和市場上化學品的法律和道德框架條件的變化做出快速和適當的反應。

化學品管理體系如果涵蓋以下要點，即可履行其目的：

- 企業化學品相關政策





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- Designation of a responsible person for chemical management
  - Chemical list (all products for production processes, washing processes in industrial laundries and for maintenance/cleaning within the facility)
  - Collection of basic information about/knowledge of the chemicals (safety data sheets as per GHS guidelines)
  - Comprehensive information about/knowledge of the chemicals (active data research)
  - Knowledge of the requirements placed on the produced articles in terms of legal requirements and buyer requirement catalogues (RSLs)
  - Assessment of chemicals
  - Risk assessment for identified critical chemicals
  - Promotion of green chemistry
- 指定負責化學品管理的人員
  - 化學品清單 (用於生產過程、工業洗衣房洗滌過程和工廠內維護/清潔的所有產品)。
  - 收集有關化學品的基本信息/知識 (符合 GHS 指南的安全數據表)
  - 有關化學品的完善的信息/知識 (活動數據研究)
  - 有關法規要求和買方要求目錄(RSL)中對生產的製品的要求的知識
  - 化學品評估
  - 已確定的關鍵化學品風險評估
  - 綠色化學的推廣

#### 4.1.2 Company policy regarding chemicals

The first step in the introduction of a Chemical Management system is a management statement on the subject of chemicals in the facility. This statement may be part of another management system such as the Quality Management System (QMS) or Environmental Management System (EMS). However, it can also be compiled as a stand-alone document.

Ideally, targets for eliminating or reducing the negative effects of chemicals can be taken or derived from this management policy. The statement should also include the facility policy on the continued education and training of employees regarding working with chemicals to convey to them the knowledge required to identify and appropriately respond to the physical, health or environmental effects related to the chemicals used.

To ensure chemicals are handled efficiently in every regard, at least one responsible person shall be appointed. This person is responsible for chemical management, reports to the management board and acts as a contact person for external inquiries.

#### 4.1.3 Chemical inventory list

The absolute minimum requirement for a Chemical Management system is an inventory list of all chemicals used in the facility (including production chemicals as well as those used for washing, cleaning and maintenance, etc.). The inventory list shall contain the following information at minimum:

- The product name (the trade name of the product or chemical identification, substance name)

The Safety Data Sheet (SDS) shall be available for each chemical in the facility (both production-relevant and non-production-relevant). The facility shall know the following aspects of the chemicals

#### 企業化學品相關政策

引進化學品管理體系的第一步，是對工廠中的化學品這一主題制定管理聲明。該聲明可以是另一個管理體系 (如質量管理體系(QMS)或環境管理體系(EMS)) 的一部分。然而，也可以將其編制成獨立的文檔。

理想情況下，該管理政策中應直接指明或可推導出消除或減小化學品負面影響的目標。該聲明還應包括以下工廠政策：繼續教育和培訓員工使用化學品，以便向他們傳達所需知識來識別與所用化學品相關的物理、健康或環境影響並作出恰當的反應。

為確保化學品在各個方面都得到高效處理，應指定至少一名負責人。此人負責化學品管理，向董事會報告，並作為外部調查的聯繫人。

#### 化學品庫存清單

化學品管理系統的絕對最低要求是生產中使用的所有化學品的庫存清單 (包括化學品生產以及用於清潔、維護等的化學品)。庫存清單應至少包含以下資訊：

- 產品名稱 (產品的商品名或化學品名稱、物質名稱)

對於工廠中的每種化學品 (無論是否與生產有關)，都應提供安全數據單 (SDS)。工廠應掌握所用化學品以下幾方面的資訊，並且最好保存在庫存清單或 ERP 中。



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used, which should preferably be maintained in an inventory list or ERP.

- Classification of the chemical based on its physical, health and ecological risks as per the GHS (globally harmonized system). This information can be found in the GHS-compliant SDS.
- Composition of the individual chemical components of the chemical (including their percentage values) and the corresponding CAS number(s)
- Hazard codes (GHS code, H and P codes) for the named individual chemical substances
- Registration information for the chemical substances (EINECS number, EC number, REACH registration number, etc.)
- Minimum, maximum and actual stock of the chemical

ioEKO-TEX® STeP cooperates with The BHive®. The tool can be used to manage all chemical inventories generated and gathered from wet-processing facilities. An additional app allows facilities to use their smartphones to collect information about their chemical products used on site and determine in seconds which products meet the sustainability requirements of the STeP MRSL (including other sustainability requirements like ZDHC and many brands/retailers). All STeP customers with chemical products (wet-processing) can use the BHive® platform free of charge within the scope of STeP. With this integration, our STeP customers can take advantage of The BHive®'s extensive chemical database to enhance the completeness of their chemical inventory in a simple and comprehensible manner.

#### 4.1.4 Banned Chemicals, MRSL

All the substances that are not permitted to be used in facilities certified by OEKO-TEX® STeP are included in a comprehensive list in Annex 3. The chemicals list, SDS and any other information about the chemical provided by manufacturer need to be checked against Annex 3. Produced products need to meet the statutory regulations of the country in which the finished products are ultimately sold. A variety of organisations provide information about which chemicals are regulated in which countries. This information is available in the form of lists. These lists are also a valuable source for determining potentially hazardous substances and are listed in Annex 7.

It should be noted that the presence of a banned chemical listed either in a statutory regulation or an RSL in the produced product may not necessarily be the result of the deliberate use of the relevant substance in production. These chemicals are also not permitted to appear as unintentional contaminants, stabilisers or degradation products of a

- 根據 GHS (全球化學品統一分類和標籤制度), 基於化學品的物理、健康和生態風險對其進行分類。此信息可參見符合 GHS 要求的 SDS。
- 化學品各化學成分的組成 (包括其百分比值) 及對應的 CAS 號
- 指定的單獨化學物質的危險代碼 (GHS 代碼、H 和 P 代碼)
- 化學物質的註冊信息 (EINECS 編號、EC 編號、REACH 註冊編號等)
- 化學品的最低、最高和實際庫存。

OEKO-TEX® STeP 與 BHive® 合作。該工具可用於管理濕式加工工廠產生和收集的所有化學品庫存清單。其 APP 程序使得企業可使用智慧型手機收集現場使用的化學產品信息, 並在幾秒鐘內確定哪些產品符合 STeP MRSL 的可持續發展要求 (包括其他可持續發展要求, 如 ZDHC 和許多品牌/零售商)。所有使用化學產品 (濕處理) 的 STeP 客戶均可在 STeP 範圍內免費使用 BHive® 平台。透過此次整合, 我們的 STeP 客戶可以利用 BHive® 的龐大化學品資料庫, 以簡單易懂的方式提高其化學品庫存的完整性。

#### 禁用化學品, MRSL

對於獲得 OEKO-TEX® STeP 認證的工廠, 所有不允許使用的物質都包含在附錄 3 的詳細清單中。需要根據附錄 3 對製造商提供的化學品清單、SDS 和有關化學品的任何其他信息進行審核。生產的產品需要符合成品最終銷售國家/地區的法規要求。許多機構都提供了有關各種化學品在不同國家/地區的管制資訊。該資訊以清單的形式提供。這些清單也是確定潛在有害物質的重要依據, 列於附錄 7 中。

應當指出的是, 生產的產品中含有法規或受限物質清單中列出的禁用化學品, 可能並非是有意在生產中使用了相關物質。這些化學品也不應以意外污染物、穩定劑或故意使用的化學品的降解產物出現。在這方面最著名的例子是許多國家通過法律禁用某些偶氮染料, 因為這些染料在分析過程中會裂解為致癌芳香胺。



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chemical that is used intentionally. The most well-known example of this is the legal prohibition in many countries of certain azo dyestuffs that are cleavable into carcinogenic arylamines during analysis.

Since there is a chance that chemicals used can contain impurities or contaminations of substances listed in the STeP MRSL, Annex 3 (e.g. APEO's, phthalates etc.), the facility should be aware of this. Suppliers of commodity chemicals should be contacted in such cases when detected in wastewater tests.

OEKO-TEX® STeP certified facilities shall define a strategy and appropriate measures and tools for ensuring that the manufactures and treated (e.g. washed) products do not represent a risk to the health of the end consumer and do not conflict with the MRSL included in Annex 3. Certification in accordance with STANDARD 100 and LEATHER STANDARD by OEKO-TEX® for the manufactured products is an efficient and cost-effective way to fulfil this requirement.

由於所使用的化學品可能含有雜質或 STeP MRSL 附錄 3 中所列的污染物 (例如 APEO、領苯二甲酸酯等), 工廠應注意這一點。如果在廢水測試中發現雜質或污染物, 應聯繫大宗化學品供應商。

通過 OEKO-TEX® STeP 認證的工廠應制定策略和適當的措施和工具, 以確保製造和處理 (如水洗) 的產品不會對最終消費者的健康構成風險, 也不會與附件 3 中的 MRSL 相衝突。根據 OEKO-TEX® 的 STANDARD 100 和 LEATHER STANDARD 標準對製成品進行認證, 是滿足此要求的有效且經濟的方法。



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### 4.1.5 Communication

If the produced products intentionally contain substances that need to be removed in subsequent production processes and that are therefore present in the wastewater from the subsequent processes, these substances need to be reported to the buyer. That gives downstream production facilities the opportunity to remove the substance through a suitable process. In addition, information about the most advantageous treatment of the waste is provided. Examples of substances that are intentionally added and removed later include spinning finishes or waxes and sizing agents used prior to weaving.

There are also mandatory legal requirements for communicating certain contents of specific chemicals to the purchaser. This affects, for example, chemicals that are listed in the SVHC Candidate List (REACH, see Annex 9) and that are found with a content of more than 0.1 w-% in products. This is a legal requirement for businesses in Europe and for imports to the European Union. Since 05.01.2021 all articles containing >0,1% (g/g) of SVHC substances shall be notified in the SCIP (Substances of Concern in articles) ECHA database.

There are further regulations and reporting requirements worldwide that vary greatly by country and region. The seller is responsible for meeting all such requirements.

### 4.1.6 Chemical hazards and risks

Critical elements first need to be determined in order to systematically improve the performance of the facility with regard to the chemicals used and minimise the hazards associated with them.

This can be done by means of a hazard assessment of the chemicals based on defined and established scientific criteria for physical, health and environmental impacts. A variety of reference values, electronic assessment tools or certifications through third-parties are available for chemicals and can provide valuable information about performing this task. Some of the tools and widely recognised reference values are listed in Annex 6 and Annex 9 of this standard.

Following the evaluation of the chemicals by the facility and the identification of any other critical chemicals, a risk assessment has to be performed.

#### 4.1.6.1 Hazard assessment

Hazards can be defined by the potential effects that a chemical can cause (acute, chronic, etc.), and the risk is the numerical probability for the occurrence of this effect resulting from combining the hazard and exposure. Therefore:

$$\text{Risk} = \text{Hazard} \times \text{Exposure}$$

### 溝通

如果生產的產品故意包含需要在後續生產工藝中去除的物質並由此存在於後續工藝的廢水中，則需要向買方報告這些物質。這使得下游生產工廠有機會通過合適的工藝去除此類物質。此外，應提供廢棄物處理最有利方法的相關信息。故意添加並隨後去除的物質的例子包括紡紗整理劑或織造前使用的蠟和上漿劑。

在將特定化學品的某些資訊告知採購者方面，也存在強制性的法規要求。受此影響的化學品包括，例如，SVHC 候選清單（REACH，參見附錄 9）中列出的化學品以及產品中含量超過 0.1 重量百分比的化學品。這是針對歐洲企業以及歐盟進口商品的法規要求。自 2021 年 1 月 5 日起，所有含有超過 0.1% (g/g) SVHC 物質的物品都應在 SCIP（產品關注物質）ECHA 資料庫中予以通報。

全球範圍內的其他法規和報告要求因國家和地區而存在較大差異。賣方有責任滿足所有此類要求。

### 化學品危害和風險

首先需要確定關鍵要素，以便系統地改善工廠在所用化學品方面的績效，並最大程度減小與這些化學品相關聯的危害。

這可以通過基於物理、健康和環境影響的明確的既定科學標準對化學品進行危害評估來實現。由第三方提供的各種參考值、電子評估工具或認證可用於化學品，並且可提供有關執行此任務的有價值的資訊。本標準的附錄 6 和附錄 9 中列出了一些工具和廣泛認可的參考值。

在工廠對化學品進行評估並識別出所有關鍵化學品之後，必須進行風險評估。

### 危害評估

危害可以通過化學品可能導致的潛在影響（急性、慢性等）來定義，而風險是由危害和暴露相結合而產生這種影響的數值概率。因此：

$$\text{風險} = \text{危害} \times \text{暴露}$$



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The first step in the hazard assessment is to comply with all the legal requirements for operating the facility and using the finished product.

The second step in the hazard assessment is the formal acceptance of chemicals that are not permitted to be used in the environment or in production above their “secure” criteria by verifying them through analyses and audits of an MRSL [blacklist].

In the third step of the hazard assessment, the chemical composition of the ingredients or components of the commercial product are identified, and the applicable CAS number or EC number is assigned.

The fourth step of the evaluation is to establish “limit values or criteria limits” for critical hazards posed by these chemical ingredients. This results in the optimisation of processes or the use of better, less hazardous substitute substances.

The fifth step in the assessment is to understand the significance and implication of “green chemistry” and to use this knowledge in combination with a hazard assessment of ingredients in order to achieve continuous improvements and use more environmentally friendly and less toxic alternatives.

#### 4.1.6.2 Risk assessment

A risk assessment in the context of a Chemical Management system shows a specific identified hazard for a specific chemical and the ways in which this hazard may arise prior to, during or after production. This principle applies to any potential hazards, whether they are of a physical nature or have an effect on health or the environment.

The subject matter of a risk assessment may be:

- Conformity in relation to obligations such as the REACH regulation, POP regulations or other environmental directives
- Customer requirements and expectations, particularly Restricted Substances Lists (RSL) or Manufacturing Restricted Substances Lists (MRSL)

Examples:

- If a dyestuff has been identified as based on a prohibited arylamine, then the risk of failing a test for prohibited azo dyestuffs (a legal requirement in many countries) is unacceptably high and the produced product will be of no commercial value following this test result. Conclusion: this dyestuff cannot be used for production and shall be disposed of.
- If a cleaning agent has been identified as having a high bioaccumulation factor and low degradability, but is used in a closed system and is fully recovered and recycled after the process, then the associated risk of polluting the environment

危害評估的第一步是遵守經營工廠和使用成品的所有法規要求。

危害評估的第二步是通過分析和審核製造過程受限物質清單[黑名單]進行驗證，從而正式接受不允許在環境或生產中使用超過其“安全”標準的化學品。

在危險評估的第三步，識別商業產品的成分或組分的化學組成，並指定適用的 CAS 編號或 EC 編號。

評估的第四步是針對這些化學成分造成的重大危害確定“限量值或標準限量值”。這可導致工藝得到優化或使用更好、危險性更低的替代物質。

評估的第五步是理解“綠色化學”的重要性和含義，並將這些知識與成分的危害評估相結合，以便實現持續改進並使用更環保、毒性更小的替代品。

#### 風險評估

化學品管理體系中的風險評估顯示了識別出的特定化學品的特定危害以及在生產之前、期間或之後可能產生這種危害的方式。該原則適用於所有潛在的危害，包括因化學品物理性質引起的危害和對健康或環境造成的影響。

風險評估的主題可為：

- 符合 REACH 法規、POP 法規或其他環境指令等義務
- 客戶要求和期望，特別是受限物質清單(RSL)或製造過程受限物質清單(MRSL)

示例：

- 如果一染料已被確定含有禁用的芳香胺，那麼因禁用偶氮染料而無法通過測試的可能性極大(這是許多國家的法律規定)，因此生產的物品將不具商業價值。結論：這種染料不能用於生產，應被清除。
- 如果清洗劑已被確定具有高生物累積性和低降解性，但將其用於封閉系統，且在處理之後全部回收和再利用，則可將污染環境的相關風險評為較低。然而，必須記錄和檢查封閉系統的有效性和全部的回收情況。



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may be rated as low. However, the efficiency of the closed system and the full recovery should be documented and checked.

- If a finishing agent has been identified as highly toxic for water organisms and cannot be completely eliminated by the wastewater treatment, which means that residues of this auxiliary agent are released into the environment, then this agent must be substituted.
- 如果整理劑已被確定對水生生物具有高毒性且無法通過廢水處理完全消除，意味著該助劑的殘留物將被釋放到環境中，則必須替代該試劑。

One possible risk assessment method is described in chapter 4.5.10.

可能的風險評估方法見 4.5.10 章節



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### 4.1.7 Green Chemistry

The principles of green chemistry describe guidelines for all facilities that produce, process and dispose of chemicals in a technical context and that are committed to continuously minimising the potential negative effects of chemicals for the economy, health and the environment.

Green chemistry is based on the following twelve principles (Anastas, P. T.; Warner, J. C. Green Chemistry: Theory and Practice, Oxford University Press: New York, 1998, p.30):

- Prevention
- Atom economy
- Less hazardous chemical syntheses
- Designing safer chemicals
- Safer solvents and auxiliaries
- Design for energy efficiency
- Use of renewable feedstock
- Reduce derivatives
- Catalysis
- Design for degradation
- Real-time analysis for pollution prevention
- Inherently safer chemistry for accident prevention

The principles of green chemistry are derived from the principles of nature and are considered to be the most sustainable and integrated approach for a Chemical Management system.

### 4.1.8 Acceptance of Third-Party certificates

A list of recognised third-party certificates that are of significance to systems for chemical evaluation and chemical management can be found in Annex 8.

If the facility is certified by third-parties, documents and records of the certification process, including the certificate and validity period, have to be provided to the OEKO-TEX® Institute.

## 4.2 Environmental Performance

This module concerns the environmental effects of the facility in relation to the handling and storage of chemicals at the facility, the use and consumption of resources (e.g. energy and water), emissions (wastewater, air emissions, carbon footprint/CO<sub>2</sub> emissions), waste production and general waste, packaging and transport and the prevention of unintentional incidents. Management objectives must be defined to measure the efficiency of machines and processes based on BAT (Best Available Techniques) and to determine the extent to which savings can be made in the areas of energy, water and

## 綠色化學

綠色化學原則擬出了所有工廠在技術背景下生產、加工和處置化學品並致力於不斷地將化學品對經濟、健康和環境的潛在負面影響降到最低的指南。

綠色化學基於以下 12 個原則( Anastas ,P. T.; Warner , J. C.綠色化學：理論與實踐，牛津大學出版社：紐約，1998 年，第 30 頁)：

- 預防
- 原子經濟性
- 減少危險化學品合成
- 設計更安全的化學品
- 更安全的溶劑和助劑
- 能源效率的設計
- 可再生資源的利用
- 減少衍生產品
- 催化作用
- 可降解性設計
- 污染防治的即時分析
- 防止事故發生的固有安全化學

綠色化學的原則源於大自然的原理，被視為化學品管理體系最可持續的綜合方法。

## 認可的第三方認證

對化學品評估和化學品管理體系具有重要意義的認可的第三方認證清單，可參見附錄 8。

如果工廠獲得第三方認證，則必須向 OEKO-TEX® 認證機構提供包括證書和有效期限在內的認證過程文件和記錄。

## 環境績效

該模塊涉及工廠在工廠處理和儲存化學品（例如，溶劑等化學品）、使用和消耗資源（例如，能源和水）、排放（廢水、廢氣排放、碳足跡/二氧化碳排放）、廢棄物產生和一般廢棄物、包裝和運輸所產生的環境影響以及對意外事件的預防。必須確定管理目標，以便基於 BAT（最佳可行技術）衡量機器和工藝的效率，並確定在能源、水及其成本方面能夠節省的程度。可通過持續監測、控制和改進這些參數來支持這一過程。使用環境管理體系能夠更有效地整合並控制所有這些因素。



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its costs. This can be supported through constant monitoring, control and improvement of these parameters. All these factors can be incorporated and controlled more effectively by using an environmental management system.

The environmental performance is based on legal requirements and the requirements of OEKO-TEX® STeP, as well as the generally accepted industry expectations.

### 4.2.1 Purpose

The environmental performance of the facility shall be considered at all times and particular attention shall be paid to the following issues and objectives:

- Safe and efficient handling and storage of chemicals (chemical raw materials, auxiliaries, dyes, solvents, cleaning and degreasing agents, machine oils, etc.)
- Monitoring and control of consumption of energy resources
- Minimising water consumption by using BAT, monitoring and controlling resources
- Minimising fresh water consumption by using recycled wastewater and/or harvested rainwater
- Minimising the discharge of wastewaters with hazardous substances by using efficient treatment and recovery methods while observing regional and national water/wastewater quality requirements
- Precautions to avoid impurities and the formation of substances harmful to health and the environment (e.g. Chromium VI)
- Prevention to create and avoid the release of microplastics during and/or after production
- Control and minimising of air emissions, in consideration of regional and national emission limit values
- Management of all types of waste, including reuse and recycling of waste wherever possible and the separation of all hazardous waste prior to disposal by a licenced facility
- Minimisation of disposable packaging material
- Data integrity and data management: environmental performance cannot be measured without good data collection, data management and reporting systems. This is of critical importance for measuring change
- Systems for controlling and preventing incidents with an environmental impact, such as spillages into water and soil, uncontrolled emissions and fire, Chromium VI incidents. This includes process control systems, the existence of hazard plans and the training of employees

環境績效基於法規要求和 OEKO-TEX® STeP 的要求以及普遍接受的行業預期。

### 目的

應隨時考慮工廠的環境績效，並應特別注意以下問題和目標：

- 安全高效地處理和儲存化學品（化工原料、助劑、染料、溶劑、清洗劑和脫脂劑、機油等）
- 消耗的監管和控制
- 透過監測並控制資源，最大程度減少用水量
- 利用回收的廢水和/或收集的雨水，盡量減少淡水消耗量
- 通過有效的處理和回收，盡量減少含有害物質的廢水排放，同時考慮地方和國家水/污水品質要求
- 避免雜質和形成對健康和環境有害的物質（例如六價鉻）的預防措施
- 防止在生產過程中中和/或生產後產生並避免釋放微塑膠。
- 控制和減少廢氣排放，同時考慮地方和國家的排放限量值
- 管理所有類型的廢棄物，包括任何可能廢棄物的再利用和再循環，及在獲許可的設施處置廢棄物前分離所有的危險廢棄物
- 最大限度地減少一次性包裝材料的使用
- 資料完整性和資料管理：沒有良好的資料獲取、資料管理和報告系統，就無法評定環境績效。這對於衡量變化至關重要
- 用於控制和預防具有環境影響的事務的系統，例如溢出到水和土壤中，不受控制的排放和火災，六價鉻事件。這包括過程控制系統，危險計劃的存在和員工的培訓





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- Valid licences or permits for air emissions, hazardous chemicals, air conditioning systems, disposal of waste and equipment such as boilers, steam vessels, generators and transformers
- Required permits for the handling of hides as raw materials for the food industry

Furthermore, following issues and objectives should be considered for a better environmental performance:

- Recovery of energy resources as well as consideration of renewable energy resources (e.g. Solar energy, wind energy etc)
- Calculation of CO<sub>2</sub> emissions (carbon footprint) and water footprint is a useful measure of environmental performance that goes beyond a simple process energy breakdown
- Tendency towards less packaging, reusable and recyclable packaging materials, including the use of recycled sources
- BAT should be used to the greatest extent possible. More information about BATs (e.g. for viscose production) is included in Annex 9

#### 4.2.2 Water

Water must be used as efficiently as possible. Data on individual unit processes shall be collected and maintained, the water consumption of the facility shall be measured. A water balance should be set up describing all incoming and outgoing water streams, preferably quantified. Incoming water streams must not be limited to only production use; e.g. water present in chemicals, etc. can also be part of the input. Outgoing water streams must not be limited to the wastewater streams; e.g. water present in sludge from wastewater treatment, etc. can also be part of the output. The ratio between the total quantity of outgoing water versus the total quantity of incoming water demonstrates the knowledge of different water streams in a company. The ration also called the water balance should be closed. At 90 % closed water balance can be considered as very good. If the result is less than 90 %, probably water and or wastewater streams are forgotten to include in the water balance (e.g. leakage in pipes, evaporation during drying process, etc.) A closed water balance is the basis for further improvement regarding water and wastewater management. Separate drinking water and process water systems shall be available. Any use of water from any source shall be in compliance with local and national legislation. If a permit is required, the permit shall be available and valid.

#### 4.2.3 Wastewater and sludge

The local and national legal requirements for wastewater treatment shall be complied with. The

- 廢氣排放、有害化學品、空調系統、廢棄物處置和設備（例如鍋爐、蒸汽容器、發電機和變壓器等）的有效許可或執照

- 處理作為食品工業原料的原皮所需的許可證。

此外，為了提高環境績效，還應考慮以下問題和目標：

- 開展能源回收利用以及考慮可再生能源（如太陽能、風能等）
- 計算二氧化碳排放量（碳足跡）和水足跡是測量環境績效的有效方法，遠超簡單的過程能量分解
- 傾向於減少使用包裝材料，使用可再用和可再生的包裝材料，包括使用可再生資源
- 應盡可能使用 BAT。有關 BATs（例如，用於纖維膠生產）的更多信息包含在附錄 9 中

#### 水資源

必須盡可能提高水的利用效率。應收集並維護各個設備的作業數據，並應測量工廠的用水量。應建立水平衡系統，描述所有取水排水，最好進行量化。取水不應僅限於生產用途；例如也可將化學品中的水視為取水的一部分。排水流不應僅限於廢水流；例如污水處理過程中污泥中的水也可以作為排水的一部分。排水總量與取水總量之比率便於公司了解不同水流的情況。該比率也叫作水平衡值。90%水平衡值為理想狀態。如果結果小於 90%，可能是因為忘記將水流和/或廢水流加入水平衡中（例如管道洩漏、乾燥過程中的蒸發等）。水平衡值是進一步改善水和廢水管理的基礎。應提供獨立的飲用水和工藝用水系統。任何水源的使用均應遵守當地和國家法律。如果需要許可證，則應持有有效的許可證。

#### 廢水及污泥

應遵守當地和國家有關廢水處理的法律規定。紡織品和/或皮革生產過程中產生的廢水，以及工業洗衣



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wastewater from textile and/or leather production processes, as well as from industrial laundries shall be treated in a wastewater treatment plant (direct discharge) that is owned by the facility or operated as part of a municipal wastewater treatment plant (indirect discharge). To ensure an effective assessment based on the requirements of OEKO-TEX® STeP and OEKO-TEX® DETOX TO ZERO is obtained, an annual test report for wastewater and, where necessary, also of sludge is required. The limit values and reporting limits are defined in Annex 3 and Annex 5. This applies to facilities with industrial process water, industrial laundries and not to facilities with domestic wastewater only. In case domestic water is blended with industrial process water, the combined wastewater is classified as industrial process water. In all cases, the legal requirements shall apply if the regional or national legal requirements for a facility/application are more stringent than the OEKO-TEX® STeP criteria. Since Viscose producers, without dyeing and other wet processes, use mainly specific base chemicals, not all parameters as listed in Annex 3 and Annex 5.1 have to be tested. Wastewater reports done according to the ZDHC wastewater guideline for MMCF can be accepted for this purpose (see Annex 3.3). The local and national legal requirements for the use of sludge as fertiliser for agricultural purposes shall be fulfilled.

The sampling and testing of wastewater based on the required parameters shall be performed by an independent authorised laboratory/testing body. A reference list of accredited institutes according to ISO 17025 can be found on the ZDHC website (see also Annex 10.1.12). The function, design and operation of the wastewater treatment plant shall be ensured. It must be clear that legal and/or agreed provisions are being complied with. If there are no legal requirements, principles of “good practice” should be followed, such as reducing environmental pollution at source, minimising waste, wastewater control and monitoring, etc., and the benchmarks of the STeP standard shall be observed. A continuous programme for internal testing and auditing is beneficial for certain parameters. If there is a special agreement with a public sewage treatment plant allowing for the legal requirement to be exceeded, this document will be taken into account.

Sampling and testing of sludge that is used as fertiliser for agricultural purposes shall be carried out by an independent laboratory/testing body on an annual basis at minimum. It must be clear that legal provisions are being complied with. If there are no legal requirements, principles of “good practice” shall be followed, and the benchmarks of the STeP standard shall be observed. A continuous pro-

房產生的廢水，應在設備所屬的廢水處理廠（直接排放）中進行處理，或作為市政廢水處理廠（間接排放）的一部分進行處理。為確保根據 OEKO-TEX® STeP 和 OEKO-TEX® DETOX TO ZERO 的要求進行有效評估，需要提供廢水年度檢測報告，必要時還需要提供污泥年度檢測報告。附錄 3 和附錄 5 規定了限量和報告限量。這適用於使用工業加工用水和工業洗衣房的工廠，而不適用於僅使用生活廢水的工廠。如果生活用水與工業加工用水混合，則合併後的廢水被歸類為工業加工用水。在任何情況下，如果地區或國家法律對工廠/應用的要求比 OEKO-TEX® STeP 標準更嚴格，則應適用法律要求。由於黏膠生產商在沒有染色和其他濕式製程的情況下，主要使用特定的基礎化學品，因此不必對附錄 3 和附錄 5.1 中列出的所有參數進行檢測。根據 ZDHC 廢水準則為 MMCF 所做的廢水報告可用於此目的（請參閱附錄 3.3）。將污泥用作農業肥料應符合當地和國家的法律要求。

根據所需的參數對廢水進行的取樣和檢測應由獨立的授權實驗室/檢測機構進行。根據 ISO 17025 標準認可的機構參考清單可在 ZDHC 網站上找到（另請參閱附件 10.1.12）。應確保污水處理廠的功能、設計和運作。必須明確遵守法律和/或約定條款。如果沒有法律規定，則應遵循“良好做法”的原則，如從源頭減少環境污染、盡量減少廢物、廢水控制和監測等，並應遵守 STeP 標準的基準。對於某些參數，持續的內部測試和審計是有益的。如果與公共污水處理廠有特殊協議，允許超出法律要求，則應考慮該文件。

每年應由獨立的實驗室/測試機構對用作農用肥料的污泥進行至少一次取樣和檢測。必須明確地表明遵守了法律規定。如果沒有法規要求，則應遵循“良好實踐”的原則，並且應遵守 STeP 標準的基準。有關內部檢測和審核的持續計劃對某些參數有利。



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programme for internal testing and auditing is beneficial for certain parameters.

There should be an annual review and a formal process for targeting and reducing wastewater discharge volumes and for improving wastewater quality with lower toxicity. A good example would be to focus on ZDHC (Zero Discharge of Hazardous Chemicals). Demonstrable effort to reduce the amount of wastewater produced in relation to production should be taken into consideration. A cost balance for water extraction/use and wastewater treatment should be compiled annually and documented. This requires for systems to be in place to measure water consumption as a critical component of improving production efficiency. An annual review for improving the quality of sludge from wastewater treatment plants should be carried out.

Corrective measures to remedy defective conditions that cause limit values to be exceeded shall be initiated immediately and documented in accordance with the quality management principles.

#### 4.2.4 Air emissions

Heating plants, generators and production machines that cause air emissions shall be identified and located. Legal requirements for operation and air emissions shall be fulfilled and documented. Compliance with this standard and/or the legal requirements shall be demonstrated through external tests by an independent authorised laboratory/testing body and, if possible, by internal tests. The external testing for heating plants with a thermal value of  $> 2$  MW shall be carried out at least once per year; for heating plants with a thermal value of  $0.3$  MW to  $2$  MW, this testing shall be carried out every 3 years. For devices with thermal power of  $> 50$  MW continuous testing shall be performed. For heating plants with a thermal value  $< 0.3$  MW, a measurement is recommended. Generators with a power of  $> 0.3$  MW shall be tested at least every 3 years. Environmental pollution reduction devices shall be used on smokestacks, vents and extraction systems to the greatest extent possible. All measures that are taken to reduce air emissions, including environmental pollution reduction devices and pollution prevention/waste minimisation/chemical substitution, should be a part of an objective defined by management.

Incineration of waste is allowed only in plants that have suitable emission controls for the reduction of unburned hydrocarbons, dioxins, halogen compounds and heavy metals.

Production machines and devices that cause direct or indirect air emissions shall be monitored as per national legal requirements. External testing shall be conducted at least every 3 years. The parameters to be tested shall be in compliance with the na-

應指定年審和正式流程，以確定和減少廢水排放量，並改善廢水質量，降低其毒性。一個很好的例子是 ZDHC (有害化學物質零排放)。能明顯減少生產引起的廢水量的措施均應納入考慮範圍內。每年應編制並記錄水提取/使用和廢水處理的成本平衡表。這要求配置相應系統來測量耗水量，此舉對提高生產效率具有重要意義。應進行年審，以改善污水處理廠的污泥質量。

若存在導致超出限量值的缺陷條件，應立即採取糾正措施糾正，並根據質量管理原則進行記錄。

#### 廢氣排放

應識別並定位引起廢氣排放的供熱車間發電機和生產機器。應滿足營運和廢氣排放的法規要求並將其記錄在案。應由獨立的授權實驗室/檢測機構進行外部檢測，並在可能的情況下進行內部檢測，由此證明符合本標準和/或法律規定。對於熱值  $> 2$  MW 的供熱車間，每年應進行至少一次外部檢測；對於熱值為  $0.3$  MW 至  $2$  MW 的供熱車間，該檢測應每 3 年進行一次。對於熱功率大於  $50$  MW 的設備，應進行連續的測試。對於熱值  $< 0.3$  MW 的供熱車間，建議進行測量。熱功率大於  $0.3$  MW 的發電機應至少每 3 年檢測一次。應盡可能在煙囪、通風口和抽氣系統中使用環境污染消滅裝置。為減少廢氣排放而採取的所有措施 (包括環境污染消滅裝置和污染預防/廢棄物最小化/化學品替代)，都應作為管理層制定的目標的一部分。

廢棄物焚燒只允許在採取了合適的排放措施，以減少未燃燒的煙、二噁英、鹵素化合物和重金屬的工廠內進行。

對導致直接或間接廢氣排放的生產機器和設備應按照每個國家的法律要求進行檢測。外部檢測需至少每三年執行一次。最好對排放物進行過濾或淨化，以確保它們符合國家法律要求。如有可能，應找出並減少例如在涉及油、溶劑蒸氣、甲醛、含硫化合物和氨



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tional legal requirements. The emissions are preferably to be filtered or cleaned to ensure that they comply with national legal requirements. Internal and external odours caused, for example, during certain dyeing and finishing processes involving oils, solvent vapours, formaldehyde, sulphur compounds and ammonia shall be located and reduced if possible. Odour reduction can be achieved by substituting odour intensive substances, installing and modifying equipment (e.g. an activated charcoal filter), capturing and recovering emitted gases from the processes (e.g. heat recovery systems) and routing stack emissions through boilers.

Measures to correct defective conditions that cause limit values to be exceeded shall be initiated immediately and documented.

The exhaust air from firing plants and steam plants is evaluated according to the following parameters:

#### CO (Carbon monoxide)

For the levels of emission of CO in plants with a thermal value between 0.3 MW and 2 MW and > 2 MW for conventional solid, liquid and gaseous fuels, see Annex 5.

#### Dust / Particulate Matter (PM)

For the dust emissions for all firings between 0.3 MW and 10 MW and > 10 MW, see Annex 5.

#### SO<sub>2</sub> (Sulphur dioxide)

For the levels of emission of SO<sub>2</sub> in plants with a thermal value between 0.3 MW and 2 MW, 2 MW and 50 MW and > 50 MW for conventional solid, liquid and gaseous fuels, see Annex 5.

#### NO<sub>x</sub> (Nitrogen Oxides)

For the levels of emissions of NO<sub>x</sub> (nitrogen monoxide + nitrogen dioxide) in plants with a thermal value between 0.3 MW and 2 MW and > 2 MW for conventional solid, liquid and gaseous fuels calculated as nitrogen dioxide, see Annex 5.

#### VOC

Any pollutants classified as Volatile Organic Compound (VOC) as listed in STeP MRSL shall not intentionally used. In this respect it shall be proven that legal requirements of VOC/HAP at work places are not exceeded. If any VOC emissions can harm human health or classified as HAP adequate PPE shall be supplied/installed and/or exhaust system installed to prevent exposure as much as possible. Regular measurements shall be performed.

### 4.2.5 Carbon Footprint / GHG emissions / CO<sub>2</sub> - emissions

The UN Sustainable Development Goal 13 (Climate Action) should be in focus and significant reduction of GHG emissions and carbon foot-print should be

的某些染整工藝中產生的內部和外部氣味。通過替換氣味較強的物質、安裝和改造設備（例如活性炭過濾器）捕獲和回收這些工藝（例如熱回收系統）排出的氣體，並重新設計鍋爐的煙囪排放管路，可減少氣味。

應立即採取措施糾正導致超出限量值的缺陷條件，並將其記錄在案。

根據以下參數對燃燒設備和蒸汽設備排出的廢氣進行評估：

#### CO (一氧化碳)

有關採用熱值介於 0.3 MW 和 2 MW 之間和 > 2 MW 的常規固體、液體和氣體燃料的車間中 CO 的排放水平，請參見附錄 5。

#### 粉塵/微粒物質

有關介於 0.3 MW 和 10 MW 之間和 > 10 MW 的所有燒製過程的粉塵排放，請參見附錄 5。

#### SO<sub>2</sub> (二氧化硫)

有關採用熱值介於 0.3 MW 和 2 MW 之間、介於 2 MW 和 50 MW 之間和 > 50 MW 的常規固體、液體和氣體燃料的車間中 SO<sub>2</sub> 的排放水平，請參見附錄 5。

#### NO<sub>x</sub> (氮氧化物)

有關採用熱值介於 0.3 MW 和 2 MW 之間和 > 2 MW 的常規固體、液體和氣體燃料的車間中 NO<sub>x</sub> (一氧化氮+二氧化氮) 的排放水平 (按二氧化氮計算)，請參見附錄 5。

#### 揮發性有機物

應避免有意使用 STeP MRSL 中列為揮發性有機物 (VOC) 的任何污染物。應證明未超過關於工作場所 VOC/HAP 的法律規定。如果任何 VOC 的排放危害人類健康或被歸類為 HAP，則必須提供/安裝足夠的個人防護用品 (PPE) 和/或安裝排氣系統，以盡可能防止暴露。必須定期進行測量。

### 足跡/溫室氣體排放/二氧化碳-排放

應重點關注聯合國可持續發展目標 13 (氣候行動)，並始終考慮大幅減少溫室氣體排放和碳足跡。這一條應納入公司政策以及如下的全球共同目標：到



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considered at all times. This shall be part of the company's policy as well as the common global goal to reduce GHG emissions (such as CO<sub>2</sub>, Methane, Nitrous Oxide, Ozone) by 30 % by 2030 (2010 is the baseline) and reach carbon neutrality and/or net zero emissions at around 2050. Therefore, a system for calculating the carbon footprint (CO<sub>2</sub>eq) of the facility shall be documented and targets shall be defined. For this reason the Impact Calculator for STeP certified companies is provided. A project for minimizing carbon footprint (CO<sub>2</sub>eq) as well as all global warming potential chemicals as mentioned in Chapter 4.2.6, shall be planned and documented.

#### 4.2.6 Global warming potential and ozone depletion potential of fluids

Refrigerants are used as substance or mixture, usually as fluid, used in a heat pump and refrigeration cycle. Many fluids have been used for such purposes: fluorocarbons, especially chlorofluorocarbons (CFCs), became commonplace in the 20th century, but are being phased out because of their ozone depletion effects. In order from the highest to the lowest potential of ozone depletion are: Bromochlorofluorocarbon, CFCs then Hydrochlorofluorocarbons (HCFCs).

Many halo alkanes, chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs), particularly CFC-11 and CFC-12, raised concerns about their stability in the atmosphere and their corresponding global warming potential and ozone depletion potential. This led to their replacement with Hydrofluorocarbons (HFCs), especially HFC-134a, which are not-ozone depleting, and have less global warming potential. However, these refrigerants still have global warming potentials thousands of times greater than CO<sub>2</sub>. CFCs, brominated fluorohydrocarbons and partly HCFCs shall not be used (see Annex 3, group 15).

In principle HFCs shall also not be used. An exception based on the EU regulation 517/2014 is granted by OEKO-TEX® STeP: HFCs can be used in cooling equipment if the Global Warming Potential (GWP) value of the refrigerant is less than 2.500. Cooling installations containing HFCs with a GWP value equal to or higher than 2.500 can be used until end of life of the equipment but shall not be refilled with HFC refrigerant(s) during their lifetime. At end of life cooling equipment need to be refilled with acceptable refrigerant(s) or substituted by a new cooling equipment with acceptable refrigerant(s). In case HFCs is used in a mixed refrigerant the GWP value of the mixture mentioned by the supplier need to be considered.

2030 年 GHG 排放 (例如 CO<sub>2</sub>、甲烷、一氧化二氮、臭氧) 減少 30% (以 2010 年為基準), 並在 2050 年左右實現碳中和和/或淨零排放。因此, 應記錄工廠碳足跡 (CO<sub>2</sub> 當量) 計算體系並明確目標。為此, 會為經 STeP 認證的公司提供環境影響計算機。應規劃並記錄第 4.2.6 章中提到的最大限度減少碳足跡 (CO<sub>2</sub>eq) 以及所有全球變暖潛在化學品的專案。

#### 流體的全球變暖潛能和臭氧消耗潛能

製冷劑以單一物質或混合物 (通常為流體) 的形式, 用於熱泵和製冷循環。許多流體已用於此類目的: 碳氟化合物, 尤其是氯氟烴 (CFC), 在 20 世紀變得非常常見, 但由於其臭氧消耗作用而逐漸被淘汰。臭氧消耗潛能從高到低依次為: 溴氯氟烴、CFC、氫氯氟烴 (HCFC)。

許多鹵代烷烴、氯氟烴 (CFC) 和氫氯氟烴 (HCFC), 特別是 CFC-11 和 CFC-12, 引起了人們對它們在大氣中的穩定性及其相應的全球變暖潛能和臭氧消耗潛能的擔憂。這導致它們被氫氟烴 (HFC) 尤其是 HFC-134a 替代, 這些氫氟烴不消耗臭氧, 並且全球變暖潛能更低。然而, 這些製冷劑的全球變暖潛能仍然是 CO<sub>2</sub> 的數千倍。不得使用 CFC、溴化氯代烴和部分 HCFC (見附錄 3 第 15 組)。

原則上, 不得使用 HFC。根據歐盟 (EU) 法規 517/2014, OEKO-TEX® STeP 允許以下例外情形: 當製冷劑的全球升溫潛能值 (GWP) 低於 2500 時, 冷卻設備可使用 HFC。含有 HFC 的冷卻裝置, 如 GWP 值等於或大於 2500, 則可使用至使用期限, 但使用期間不得再補充 HFC 製冷劑。在到達使用期限時, 冷卻設備需要補充合格的製冷劑, 或者替換成帶有合格製冷劑的全新冷卻設備。如果 HFC 用於混合製冷劑時, 需考慮供應商所提供混合物的 GWP 值。



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The equipment (e.g. air conditioning, cooling equipment) should be maintained on a regular basis and a proactive leak detection should be done on a regular basis. Targets should be defined to substitute refrigerants with a high global warming potential and ozone depletion potential by refrigerants with a lower potential.

#### 4.2.7 Energy (resources and consumption)

The energy used shall be utilised optimally. To comply with this requirement, energy consumption shall be monitored regularly for the entire facility with the aim of monitoring energy consumption for each individual process. Specific energy requirements can be calculated by relating energy and water consumption to textile and/or leather production, as well as industrial laundries. This can be a useful indicator of efficiency.

If a reduction in energy consumption is a defined objective, energy savings can be achieved through improved process control or energy recovery (e.g. heat recovery, multi-section cooling cycles, heat exchange, etc.).

Consideration should also be given to the use of renewable energy sources with a lower environmental impact/carbon footprint.

#### 4.2.8 Microplastic

Microplastics pose a challenge to biodiversity and overall health of ecosystems. The operating facility shall identify risks/sources where microplastics could potentially be generated and released during production. Through specific measures, the operating facility should prevent the release of microplastics during and after production.

Possible approaches include:

- Preventing fiber irregularities and maintaining the strength of fiber yarn (e.g., lower temperatures during the melt spinning process)
- Whenever possible, using continuous filaments instead of staple fibers for yarn production. Dyeing can significantly influence the tendency to release microfibrils; in this regard, dyeing yarn should be preferred over dyeing fabrics or garments
- Certain mechanical and chemical finishing treatments (e.g. hydrophobic finishing, anti-pilling finish), which create a protective layer over the fabric to preserve its properties, can also have great potential in increasing the fabric's resistance to microplastic release and pilling

The facility should take measures to avoid the release of microplastics into the environment.

The following examples can be considered:

應定期維護設備（例如，空調、冷卻設備），並定期進行主動洩漏檢測。目標應當是用具有較低潛能的製冷劑替代具有較高的全球變暖潛能和臭氧消耗潛能的製冷劑。

#### 能源（資源和消耗）

必須充分利用所使用的能源。為了達到這項要求，必須定期監督整個工廠的能源使用率，並將檢測每個單獨製程的能源使用率作為目標。將能源使用率與水和紡織品和/或皮革生產以及工業洗衣房相關聯，可計算出特定的能源需求。這可作為實用的效能指標。

如果降低能耗是一個確定的目標，則可以通過改進工藝控制或能源回收（例如，熱回收、多段冷卻循環、熱交換等）來實現節能。

還應考慮使用具有較小環境影響/碳足跡的可再生能源。

#### 微塑料

微塑膠對生物多樣性和生態系統的整體健康構成挑戰。工廠應識別生產過程中可能潛在產生和釋放微塑膠的風險/來源，並採取措施避免將微塑膠在生產過程中和生產後釋放到環境中。

可能的的方法包括

- 防止纖維不規則並保持纖維紗的強度（例如，在熔融紡紗過程中降低溫度）
- 盡可能使用連續長絲而不是短纖維來生產紗線。染色會大大影響微纖維的釋放趨勢。因此，染色紗線比染色織物或服裝更可取。
- 某些機械和化學整理處理（如疏水整理、抗起毛球整理）可在織物上形成保護層以保持其特性，在提高織物抗微塑膠釋放和抗起毛球性能方面也有很大潛力。

工廠應採取措施避免在環境中釋放微塑膠。

可參考以下實例：



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- Prevention/retention of dust release.
- Removal of microplastics during wastewater treatment (e.g., filtration).

#### 4.2.9 Waste management

The type, category and quantity of all production waste shall be recorded and documented. The disposal practices shall be documented. A balance of disposal costs and utilisation costs, including possible alternative methods of disposal, should be prepared.

The disposal of production waste in an on-site landfill, incineration at facility sites and transfer of solid and liquid waste into open waters (this does not apply to cleaned wastewater) shall be avoided at all times. Recycling of waste, waste taken back by suppliers and the transport of waste to other facilities/industries for reuse (purpose must be known) are the preferred methods.

Residues, for example, from sizing baths, pre-treatment, dyeing and finishing baths, tanning, re-tanning and fatliquoring processes as well as from printing and coating pastes should be collected if possible and either reused or disposed of in a legal, safe and ethical manner.

Textile and/or leather waste containing hazardous substances shall be collected separately, documented and disposed of in a legal and ethical manner. Production waste, both hazardous and non-hazardous, shall be collected in designated areas and sorted by waste type (e.g. paper, cardboard, textile/leather waste, plastics, general waste, metal, etc.).

Hides as raw material for the manufacture of products for the food industry shall be collected and processed in separately designated areas. Waste storage areas shall be built in such a way that contamination of the surroundings and water is minimised. The aim is to completely avoid environmental impacts. The storage areas shall be protected from weather influence and fire-proof. The disposal of hazardous substances shall be recorded and designated as special waste. Recycling procedures for returning lubricating agents and machine oils to the supplier shall be followed.

A recycling programme to reduce or eliminate all waste shall be implemented and documented.

The improvement of waste reduction, reuse and recycling of waste shall be reviewed at least once per year and evidence for reduction of the quantity of waste should be an objective. An evaluation of waste management contractors in terms of sustainability, disposal/treatment methods should be preferred and the contractors should be audited regularly if possible. The results of these efforts should be communicated.

- 防止/阻止粉塵釋放。
- 在廢水處理（如過濾）過程中去除微塑膠。

#### 廢棄物管理

應記錄並以文件證明所有生產廢棄物的類型、類別和數量。應將處置實踐記錄在案。應編制處置成本和使用成本平衡表，包括可能的替代處置辦法。

務必避免將生產廢棄物現場填埋，在工廠內焚燒或將固體和液體廢棄物轉移到開放水域（這不適用於經淨化的廢水）。首選方法是循環利用廢棄物，由供應商回收廢棄物以及將廢棄物運輸到其他工廠/行業進行再利用（使用目的必須是已知的）。

如果可能的話，應收集(例如)上漿浴、預處理、染色和整理浴、鞣製、複鞣製和加脂工藝以及印花和廢棄物漿料料的殘留物，並以合法、安全和合乎道德的方式進行重複使用或處置。

含有有害物質的紡織品和/或皮革廢料應單獨收集、記錄，並以合法和道德的方式處置。應在指定區域收集有害和無害的生產廢物，並按廢物類型（如紙張、紙板、紡織品/皮革廢物、塑膠、一般廢物、金屬等）進行分類。

作為食品工業產品生產原料的原皮應在單獨指定的區域收集和處理。廢棄物儲存區的建設應盡量減少對周圍環境和水源的污染。目的是完全避免對環境造成影響。儲藏區應不受天氣影響並具有防火功能。危險物質的處置應記錄在案並指定為特殊廢棄物。應遵守將潤滑劑和機油退還給供應商的回收程序。

應實施並記錄旨在減少或消除所有廢棄物的回收計劃。

每年至少對減少廢棄物、再利用和回收廢棄物的進展情況檢查一次，而且應將減少廢棄物數量作為目標。關於可持續性、處置/處理方法，應優先採用廢棄物管理承包商評估，並定期審核承包商（如可行）。應公佈這些措施的結果。



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The sludge from wastewater treatment shall be stored at a safe place to ensure that no contamination into the ground is possible on the facility premises. Particular care shall be taken when containing heavy metals from dyestuffs. The sludge shall be transferred to a licenced company dealing with sludge for professional disposal/processing. Although it is known that in certain countries wastewater sludge is used for the fertilisation of fields, a contractor for professional disposal is preferred.

#### 4.2.10 Handling and storage of chemicals, gases, auxiliaries, dyes, solvents, machine oils etc.

The facility shall be able to demonstrate that all chemical substances are stored securely in rooms or areas designed for the purpose. Chemical substances, including cleaning agents, degreasing agents and machine oils etc., should be handled as per the legal requirements and all containers, vessels (chemicals and gases area) and filling stations shall be marked with the correct warning symbols (GHS code) and protective measures. Information about the individual chemicals shall be provided in the form of safety data sheets. Employees should also be provided with appropriate training in the handling and use of these chemicals. Suitable training materials should be prepared.

Highly flammable liquids, such as methanol, isopropyl alcohol, etc., that are stored in metal drums may form explosive mixtures when they come into contact with air. Therefore, appropriate measures to prevent explosions (e.g. earthing of metal drums and equipment) shall be taken. Flammable solids (e.g. sodium dithionite) shall be stored at dry place and protected from water. Their containers shall be kept closed at all times

#### 4.2.11 Packaging and transport

The use of packaging material should be minimised and avoided to the greatest extent possible. Recycling and reuse of packaging material for internal purposes is encouraged and single-use packaging should be avoided.

The quantity of packaging material used should be recorded. The stipulated method of disposing of packaging material should be defined.

Packaging systems that can be reused, recycled or returned to the supplier should be given preference in procurement decision-making. The use of recycling packaging material should be integrated into the process.

Objectives and programmes to reduce the overall impacts on sustainability through transport logistics management (e.g. prioritising low-impact forms of transport) are to be introduced and documented.

廢水處理產生的污泥應存放在安全的地方，以確保生產車間的土地不被污染。如污泥中含有染料中的重金屬時應特別小心，污泥應轉移到處理污泥的許可公司進行專業處置/加工。雖然眾所周知，在某些國家，廢水污泥用於田間施肥，但優選專業處理的承包商。

#### 化學品、氣體、助劑、染料、溶劑、機油等的處理和儲存

工廠必須能夠證明，所有化學物質都已安全地儲存在專用房間或區域中。化學物質，包括清洗劑、脫脂劑和機油等，應按照法律要求進行處理，並且所有容器（化學品和氣體區域）和灌裝站應標有正確的警示標誌（GHS代碼）並設有防護措施。有關各化學品的資訊，應以安全數據表的形式提供。還應為員工提供處理和使用這些化學品的適當培訓。應準備合適的培訓材料。

儲存在金屬桶中的高度易燃液體，例如甲醇、異丙醇等，在與空氣接觸時可能形成爆炸混合物。因此，應採取適當的措施以防止爆炸（例如接地金屬桶和設備）。易燃固體（例如連二亞硫酸鈉）應儲存在乾燥處並防止與水接觸。容器應始終保持密閉狀態。

#### 包裝和運輸

應最大程度減少包裝材料並儘可能避免使用。應鼓勵內部回收並重複使用包裝材料，並避免使用一次性包裝。

應記錄所用包裝材料的數量。應規定包裝材料的處置方法。

在採購決策中，應優先考慮可重複使用、循環利用或退回給供應商的包裝系統。應將回收型包裝材料的使用整合到該過程中。

應推行並記錄通過運輸物流管理（例如，優先考慮採用影響較小的運輸形式）來減少對可持續性的總體影響的目標和計劃。



#### 4.2.12 Prevention of accidental events that affect the environment

Safety systems shall include appropriate technology and processes for the prevention of accidents, environmental impacts and unintentional consequences throughout all steps of production and transportation. The safe transportation of chemicals within the facility and training of workers in this regard should also be considered.

All incidents and occurrences shall be documented thoroughly. The impacts of, causes of and reasons for the incident and corrective and preventative measures for avoiding such incidents in the future shall also be recorded. An emergency plan shall be developed for areas or situations of high risk to ensure an adequate response. Organisational measures and emergency plans for routine and extraordinary situations for the prevention of danger, such as checks and maintenance of safety devices and machinery, shall be documented.

A dedicated facility emergency response team, which deals with all chemical and environmental pollution incidents, should be assigned and trained regularly. Objectives for eliminating or reducing hazardous substances in the facility should be documented.

#### 4.2.13 Prohibited Processes

Processes that are prohibited due to their high environmental impact or for safety reasons are listed in Annex 4.

#### 4.2.14 Hazardous processes

Procedures/processes that are not recommended and dangerous due to their high environmental impact or for safety reasons are listed in Annex 4.

#### 4.2.15 Acceptance of Third-Party certificates

Recognised third-party certificates that are of significance for environmental performance are listed in Annex 8.

If a facility is certified by a third-party certification system, documents and records of the certification process, including the certificate and validity period, shall be provided to OEKO-TEX®.

### 4.3 Environmental and Energy Management

An environmental and energy management system (EMS) is a management tool or concept that includes a documented description of the processes and activities for achieving environmental objectives and continuous improvements in comprehensive environmental and energy performance. The

#### 預防有環境影響的意外事故

安全系統應包括適當的技術和流程，用以防止所有生產和運輸步驟中的事故、環境影響和意外後果。還應考慮化學品在工廠內的安全運輸並就此對工人進行培訓。

應完整記錄所有事故和事件。還應記錄事故的影響、起因、理由以及避免此類事件將來再次發生的糾正和預防措施。應針對高風險區域或情況制定應急計劃，以確保作出適當的反應。應記錄適用於常規和特殊情況，能夠防範危險的組織措施和應急計劃，例如檢查和維護安全裝置和機器。

應安排專門的工廠應急小組來負責處理所有化學和環境污染事故，並定期對其進行培訓。消除或減少工廠中有害物質的目標應記錄在案。

#### 禁止的工藝流程

附錄 4 中列出了由於會對環境造成較大影響或出於安全因素而被禁止的工藝。

#### 有害工藝

附錄 4 中列出了由於會對環境造成較大影響或出於安全因素而不推薦的危險程序/工藝。

#### 認可的第三方認證

附錄 8 中列出了對環境績效具有重要意義的受認可的第三方證書。

如果工廠通過了第三方認證體系的認證，則應向 OEKO-TEX® 提供包括證書和有效期限在內的認證過程文件和記錄。

#### 環境與能源管理

環境與能源管理體系 (EMS) 是一種管理工具或概念，包括對實現環境目標和持續提升綜合環境與能源績效的過程和活動的文檔描述。組織的 EMS 應記錄並描述方法範圍、關鍵績效指標、簡介、維護、改進和活動溝通以及公司目標。



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EMS of an organisation should document and describe the methods for the scope, key performance indicators, introduction, maintenance, improvement and communication of activities and company objectives.

A declaration on scope and formal confirmation of management support (endorsement) are vital components of the EMS and the strategic orientation of a facility. They represent a statement of intent by management to assist with and maintain the environmental performance of a facility and to meet internal and external obligations and legal requirements.

The facility shall set up and maintain an EMS in a format that ensures that the activities of the organisation are in line with the established environmental policy and its corresponding objectives. This EMS should be used for internal and external performance audits in relation to these objectives.

The ISO 14000 series of international standards are recognised hereby as a model template for integrated EMS platforms, ISO 50001 is the model for energy management.

### 4.3.1 Purpose

The environmental policy is an important part of the environmental and energy management system (EMS) of a facility and should include a statement of intent by management to aim to improve environmental and energy performance to achieve greater sustainability.

The facility shall create and maintain an EMS to ensure that the environmental impacts and energy review of company activities are in line with the defined environmental and energy policy and its corresponding objectives.

At minimum, an effective EMS shall include the following:

- The environmental and energy policy of the organisation plus management provisions and activities for achieving the objectives of this policy, including organisational activities in the areas of water, wastewater, energy, air emissions, materials, solid wastes, etc.
- A formal list and summary of all the statutory, legal and other requirements and regulations that apply to the facility
- The results of an initial benchmarking environmental assessment and energy review based on an energy base line.
- A formal schedule for performing environmental and energy assessments and internal audits with formal methods and processes for internal and external communication

有關範圍和正式確認管理支持(認可)的聲明是EMS和工廠戰略定位的重要組成部分。它們是管理層協助和維護工廠的環境績效並滿足內外部義務和法規要求的意向聲明。

工廠應以確保組織的活動符合既定環境政策及其相應目標的形式建立和維護EMS。該EMS應用於與這些目標相關的內部和外部績效審核。

據此,將國際標準ISO 14000系列視為是集成EMS平臺的模型模板,ISO 50001是能源管理的模型。

### 目的

環境與能源管理體系(EMS)是工廠環境政策的重要組成部分,應包括管理層,旨在改善環境與能源績效以實現更高可持續性的意向聲明。

應創建並維護EMS,以確保公司活動的環境影響與能源審查符合既定的環境與能源政策並與對應目標一致。

有效的EMS應至少包括以下內容:

- 組織的環境與能源政策以及實現該政策目標的管理規定和活動,包括水、廢水、能源、廢氣排放、材料、固廢等領域的組織活動。
- 適用於工廠的所有法定、法律及其他要求和法規的正式清單和總匯
- 基準環境評估與基於能源基線的能源審查結果
- 利用正式的內部和外部溝通方法和流程進行環境與能源評估和內部審核的正式時間表



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- The gaps and planned paths for the continuous improvement of environmental and energy performance
  - A detailed description of environmental management systems (detailed measures with schedules and responsibilities) for routine production and as a response to internal and external performance audits
  - Environmental and energy management systems and instruction manuals (establishment of an environmental policy with targets, programmes and environmental and energy objectives and activities)
  - Creating and maintaining organisational requirements and opportunities for the environmental and energy objectives
  - A designated responsible environmental manager (or comparable position) who reports directly to upper-level company management in relation to personnel, responsibilities, budgets, compliance, etc. (e.g. environmental commissioner, employee training)
  - Clearly defined structures for operation monitoring within the company
- 提升環境與能源績效所面臨的差距和規劃的改進路徑
  - 環境管理體系用於日常生產(包含時間表和責任的詳細措施)以及作為內外部績效審核響應的詳細描述
  - 環境與能源管理體系和指導手冊(確定包含目標、計劃、環境與能源目標和活動的環境政策)
  - 創建和維持組織要求和機會,以實現環境與能源目標
  - 指定的環境責任經理(或類似職位),該經理直接向公司高層管理層報告人事、責任、預算、合規性等(例如,環境專員、員工培訓)
  - 明確定義的監測公司營運的結構

### 4.3.2 Environmental policy

The first step in introducing or improving an environmental management system is a declaration on company responsibility and the management structure for environmental and energy performance. This declaration includes a commitment to improve the environmental and energy performance of the facility in terms of activities, production, products and performance. An energy review should be developed based on measurement or other data.

The environmental guideline shall be defined and documented in a way that ensures that it:

- Is relevant to the activities, products and services and their environmental impact
- Includes a commitment to comply with all the specified obligations and any other obligations in addition to the legal requirements fulfilled by the facility
- Strives to prevent/minimise harmful environmental impacts and to ensure development for greater sustainability

Environmental issues with significant environmental impacts shall be identified for regular, irregular and accident and emergency situations.

### 4.3.3 Laws and regulations

A designated responsible person (e.g. an environmental protection commissioner) or an external consultant should be appointed. The responsible person should act as a contact person for all envi-

### 環境政策

引入或改進環境管理體系的第一步,是制定公司責任聲明和環境與能源績效管理結構。該聲明包括承諾在活動、生產、產品和性能方面改善工廠的環境與能源績效。應根據測量或其他數據制定能源審查。

應以恰當的方式定義並記錄環境指南,確保該指南:

- 其與活動、產品和服務及環境影響相關
- 包括工廠除滿足法規要求以外還遵守所有規定的義務及任何其他義務的承諾
- 努力防止/最大程度減少有害的環境影響,並確保以可持續性更高的方式發展

必須針對常規、非常規、意外和應急情況,識別出具有重要環境影響的環境因素。

### 法律和法規

應任命一名指定的負責人(例如,環境保護專員)或外部顧問。該負責人應作為所有環境問題的聯繫人,並且應熟悉相關法律法規的內容。該負責人對活動進行管理以確保遵守這些法律法規。



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ronmental issues and should be familiar with the contents of related laws and regulations. The responsible person manages activities for ensuring compliance with these laws and regulations.

#### 4.3.4 Environmental objectives

The facility should have procedures to specify relevant environmental and energy objectives and targets derived from them.

The environmental objectives of the facility should be laid down in writing and published internally and/or externally. These objectives and achievements should be documented.

The targets should be consistent with the environmental and energy policy.

To the greatest extent possible, these objectives should constitute a quantitative, realistic commitment with a fixed time period for the continuous improvement of environmental and energy performance.

The targets should go beyond the fulfilment of legal requirements. Performance above and beyond the legal requirements for environmental and energy performance should be considered based on the location of the facilities and the commercial requirements of the facility.

#### 4.3.5 Environmental and energy management programme

Detailed measures with schedules and responsibilities should form part of the environmental and energy management programme. They describe the environmental and energy performance and the approach to developing and achieving the environmental and energy objectives.

The processes for verifying the fulfilment of the set requirements and their documentation should be described.

Benchmarks and key figures that should be achieved to fulfil the environmental and energy management programme should be defined. The time, place, measuring precision, set benchmark targets and key figures for non-fulfilment or non-compliance should be defined. It should be recognised that an increase in sustainability should be the objective of the existing facility.

However, the facility should have special programmes for managing new projects and new developments with the inherent aim of greater sustainability.

#### 環境目標

工廠應制定程序來說明相關的環境與能源目標以及由此衍生的目標。

應書面陳述工廠的環境目標並在內部和/或外部發行。應對這些目標和成績加以記錄。

目標必須與環境和能源政策保持一致。

這些目標應儘可能構成切實可行的可量化承諾，即在一定時間段內持續提升環境與能源績效。

目標應超出滿足法規要求的範圍。應基於工廠所在地和工廠的商業要求考慮高於和超出環境與能源績效法規要求的績效。

#### 環境與能源管理計劃

包含時間表和責任的詳細措施應形成環境與能源管理計劃的一部分。這些措施描述環境與能源績效以及制定和實現環境與能源目標的方法。

應闡述滿足設定要求的驗證流程和文件。

應確定實現環境與能源管理計劃應達到的基準和關鍵指標。應針對未實現或不合規的情況確定時間、地點、測量精度、目標基準設定值和關鍵指標。應該認識到，應將提升可持續性作為現有工廠的目標。

但是，工廠應針對管理內含實現更高可持續目標的新項目和新發展制定特別計劃。



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### 4.3.6 Environmental and energy management manual

Sufficient documentation of the actions performed and measures taken is essential for a successful EMS.

To ensure quick and structured access to the environmental and energy management manual, it should be organised into elements that make it easy to understand and use in the daily operations of the facility.

This manual should outline the environmental policy, objectives and programmes. The manual should document important roles and responsibilities and include sufficient references to the corresponding documentation.

The facility should have defined procedures for reviewing these documents to ensure:

- The systematic and regular review and authorisation of the relevant staff
- A procedure for document control (may be covered in QMS – to be aligned with OEKO-TEX® STeP)
- Availability at all important locations, particularly for activities with an environmental impact and significantly affecting energy performance.
- Procedures for all unit activities in the facility that have an environmental impact and improvement of the energy performance

In addition to the regular conditions, the manual or documentation should also consider irregular operating conditions, accidents and emergency situations and contain corresponding detailed environmental information and instructions.

The facility should have a documentation system that ensures compliance with the requirements from the EMS. The records should be legible and should refer to all the facility activities and products as per the EMS.

The facility should have procedures for the accessibility of records for affected parties inside and outside the facility and measures should be taken to prevent the loss of and damage to records.

The document retention period should be specified and documented. The documents should be kept for the duration of use of the OEKO-TEX® label, but for three years at minimum.

### 4.3.7 Operational process control

The facility should identify functions, activities and processes that have an environmental impact, that affects the energy performance and that are relevant to the environmental and energy policy.

### 環境與能源管理手冊

充分記錄所執行的操作和採取的措施，對於成功的 EMS 至關重要。

環境與能源管理手冊需包含工廠日常運營所需的便於理解和使用的內容，並經過組織和排列，以確保能夠按結構快速進行查閱。

本手冊應概述環境政策、目標和計劃。該手冊應規定重要的角色和職責，對相應文件應具有足夠的參考。

工廠應建立管理這些文件的程序，以確保：

- 定期對相關人員進行系統的審查和授權
- 檔案控制程式（可包括在 QMS 中 - 與 OEKO-TEX® STeP 保持一致）
- 在所有重要地點都可執行，特別是對於具有環境影響和重大能源績效影響的活動而言。
- 適用於工廠中對環境造成影響並改善能源績效的所有單元活動的程序

除正常狀況外，手冊或文檔還應考慮非正常的操作狀況、事故和應急情況，以及相應的具體環境信息和說明。

工廠應擁有確保符合 EMS 要求的文檔記錄系統。記錄應清晰明瞭，並且應指出 EMS 所涉及的所有工廠活動和產品。

工廠應制定供工廠內外部相關各方獲取記錄的程序，並且應採取措施防止記錄遺失或損壞。

應指定並記錄文件保存期限。在使用 OEKO-TEX® 標籤期間必須保存文件，至少應保存三年。

### 操作控制

工廠應確定對環境和能源績效有影響且與環境和能源政策相關的功能、活動和流程。



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The facility should have an operational plan that incorporates the EMS and that can be implemented under the following conditions. This requires:

- Documented work instructions for activities with reference to the environmental policy for employees and subcontractors
- Procedures for sourcing and for externally contracted activities to ensure compliance with company requirements
- Monitoring and control of relevant process characteristics (wastewater discharge, waste disposal and energy consumption)
- Approval of planned processes and equipment
- The definition of performance criteria in written documents

#### 4.3.7.1 Verification, measurements and testing

The company should have procedures for verifying and measuring the performance of equipment, processes and personnel in relation to the fulfilment of objectives and areas of responsibility in the EMS. Requirements for compiling and maintaining records of the results of these performance audits should be in place. For each relevant activity or area, the company should specify and document:

- The verification information to be obtained
- The verification procedures to be used
- The measurement criteria for positive and negative results
- The evaluation of the validity of previous verification information for malfunctions

#### 4.3.7.2 Non-Compliance and corrective action

The facility should define responsibilities and institutions to introduce procedures for investigating and taking corrective measures in the event of non-conformance or non-compliance with defined requirements. Together with the management representative, the management function responsible for the measure in question should:

- Determine the underlying cause of the non-conformance (with regulations) or non-compliance (with legal requirements)
- Decide whether documented procedures should be amended
- Draw up a suitable plan of action for the risks encountered
- Introduce effective controls for preventive measures
- Document any changes in procedures as a result of corrective measures

工廠應制定包含 EMS 的營運計劃，並且該計劃可在下列情況下實施。這需要：

- 以針對員工和分包商的環境政策為參考、適用於相關活動的文件性作業指導
- 適用於採購和外部合約活動的程序，用以確保符合公司要求
- 監測和控制相關工藝特性（廢水排放、廢棄物處置和能源消耗）
- 批准計劃的工藝和設備
- 在書面文件中對績效標準進行定義

#### 驗證、測量和測試

在實現 EMS 目標和履行 EMS 職責板塊中的職責時，公司應制定相關設備、工藝和人員績效的驗證和測量程序。應確定編制和維護這些績效審核結果記錄的要求。對於每個相關活動或板塊，公司應詳細說明並記錄：

- 獲取驗證資訊
- 使用驗證程式
- 正面和負面結果的衡量標準
- 對之前故障驗證信息的有效性的評估

#### 不合規和糾正措施

工廠必須確定引進未遵守或不符合既定要求的調查和糾正措施程序的職責和權限。負責相應措施的管理部門以及管理代表必須：

- 確定未遵守（法規）或不符合（法規要求）的根本原因
- 決定是否應修改程序文件
- 針對所遇風險制定合適的行動計劃
- 針對預防措施引進有效的控制手段
- 記錄所有因糾正措施引起的程序變更



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- Document the occurrence of non-compliance, the subsequent decisions and any changes to the environmental management system

- 在環境管理體系中記錄未遵守法規的情況、後續決定及所有變更

### 4.3.8 Organisation and personnel

組織和人事

#### 4.3.8.1 Nomination of a responsible person

授權責任方

The facility management shall appoint at least one responsible person who has the responsibility and authority to ensure that the requirements of the EMS are fulfilled.

工廠管理層應任命至少一名經授權的負責人，負責確保達到 EMS 的要求。

Procedures for internal verification should be set out for the facility and sufficiently trained employees and the necessary means to do so should be provided.

應制定工廠內部驗證程序，並且應讓受過充分培訓的員工採取必要手段來執行此類程序。

#### 4.3.8.2 Management review

管理評審

The EMS should be reviewed in regular intervals. A management system is a living system and should be dynamic.

應定期審查 EMS。管理系統是一個活動的系統，應保持動態。

The system and its performance should be reviewed with an input and output approach that considers the following aspects:

應採用考慮以下方面的輸入和輸出的方式來審查系統及其性能：

- The fulfilment of all regulatory and other obligations in addition to legal requirements
- Performance, non-compliance
- Objectives (including trends)
- Measures taken
- Audits
- Changes and the need for improvement

- 除法規要求以外，還要履行所有監管及其他義務
- 績效，不合規
- 目標（包括趨勢）
- 採取的措施
- 審核
- 變化和改進需要

The results of the reviews, including decisions and measures, should be documented.

審查結果，包括決定和措施等都應記錄在案。

#### 4.3.8.3 Training requirements

培訓要求

The facility should introduce and maintain procedures for training staff, including contractors, suppliers, etc., to ensure that everyone is kept informed about:

工廠應引進並維護員工培訓程序，包括對承包商和供應商等的培訓，確保每個人都知悉：

- The importance of the environmental and energy policy
- Potential consequences of internal activities on the environment
- The environmental benefits of improved performance
- The consequences in the event of deviations from the stipulated procedures

- 環境與能源政策的重要性
- 他們的活動對環境的潛在影響
- 改進績效的環境效益
- 偏離規定程序的後果

Training documents should be maintained and made available as needed.

應保留並在需要時提供培訓文件。



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## 4.3.9 Communication

### 4.3.9.1 Internal publication

All internal stakeholders should be made aware of the introduction of an EMS, the environmental and energy policy, the environmental and energy objectives and the resulting organisational structures.

The internal communication and publication of the EMS and the performance of the facility in relation to its declared objectives should be communicated throughout the facility and the certifying OEKO-TEX® Institute.

This internal report should include the following:

- The activities, production processes, products and services
- The most important elements of the EMS, the environmental policy and the corresponding environmental objectives
- The environmental performance, with a particular focus on the related environmental objectives
- A schedule for regular reviews and reports
- A management review mechanism

### 4.3.9.2 External communication

The organisation should decide on procedures to communicate with external business partners and interested parties on matters related to its environmental and energy policy, performance and effects. The recommended practice is to make this report publicly available to all interested parties.

The GRI (Global Reporting Initiative) is an accepted format for sustainability-based reporting. The external communication or environmental and energy report should provide an accurate and detailed picture of the following matters:

- The activities, production processes, products and services
- The most important elements of the EMS, the environmental and energy policy and the corresponding environmental and energy objectives
- The environmental and energy performance, with a particular focus on the related environmental and energy objectives
- A schedule for regular reviews and reports

The environmental and energy report should be based on the records, programmes, manuals and other documentation from the EMS.

The environmental and energy report should be based on the evaluation of the efficiency of the EMS through audits and reviews.

The environmental and energy report should contain the full name and full address of the facility.

## 溝通

### 內部刊物

應讓所有內部的利益相關者知曉引進的 EMS、環境與能源政策、環境與能源目標以及由此產生的組織結構。

EMS 的內部溝通和發佈以及工廠與其宣稱的目標相關的表現須在整個工廠內進行溝通，並向 OEKO-TEX® 機構提供證明文件。

該內部報告應包括以下內容：

- 活動、生產工藝、產品和服務
- EMS 中最重要元素、環境政策及相應的環境目標
- 環境績效，尤需重點涉及相關的環境目標
- 定期審查和報告的時間表
- 管理審查機制

### 對外交流

組織應確定與外部業務合作夥伴和相關各方溝通其環境與能源政策、績效和效果相關事宜的程序。建議做法是公開向相關各方提供這一報告。

GRI (全球報告倡議) 是可持續性報告的公認格式。對外交流或環境與能源報告必須能夠詳盡準確地提供以下資訊：

- 活動、生產工藝、產品和服務
- EMS 中最重要元素、環境與能源政策及相應的環境與能源目標
- 環境與能源績效，尤需重點涉及相關的環境與能源目標
- 定期審查和報告的時間表

環境與能源報告應基於記錄、程序、手冊和 EMS 的其他文檔。

環境與能源報告應基於通過審核和審查得出的 EMS 效率評估。

環境與能源報告應包含工廠的完整名稱和完整位址。





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The environmental and energy report should contain a description of the locations, activities, products and services that it refers to. The report should indicate the basis on which it was compiled.

The measurements of the wastewater and sludge test should be published on the internet, for example, using the relevant function within the STeP assessment tool.

### 4.3.9.3 Public relations

Public relations measures provide any interested parties (staff, residents, environmental associations, authorities) with information about operational environmental projects and measures.

The type and target group of the measures taken should be documented.

### 4.3.10 Introduction of an Environmental Management System

The complete implementation of an EMS is a multi-stage process. As a basic principle, this process is separated into an implementation phase and an improvement phase.

The most important objectives of the implementation phase are:

- To determine organisational requirements for the successful implementation of an EMS (responsibility)
- An initial environmental assessment to gather knowledge of the current environmental and energy performance to establish benchmarking, and the creation of a matrix of environmental issues
- To conduct a data assessment for gap analysis
- To determine the required measures and set environmental and energy objectives and plans based on the benchmarking
- To start preparing documentation, manuals and operational procedures

#### 4.3.10.1 Performing an environmental assessment

The facility shall have procedures for recording all legal, regulatory and other policy requirements relating to the environmental aspects and to its energy efficiency, energy use and energy consumption of the activities, products and services.

The facility should develop an understanding of how it interacts with the environment. That includes the proportion of its activities and products that may affect the environment. It also includes discharges, emissions, the use or reuse of materials, noise emissions, etc. The facility shall identify and document any environmental aspects that have a direct and indirect impact on the environment. This

環境與能源報告應包含對被報告物件地點、活動、產品和服務的描述。報告應指出編製報告的依據。

廢水和污泥檢測的測量結果應在互聯網上公佈，例如，使用 STeP 評估工具中的相關功能。

### 公共關係

公共關係措施可為相關各方（員工、居民、環保協會、機構）提供有關營運環境項目和措施的信息。

應記錄所採取措施的類型和目標群體。

### 實施環境管理體系

EMS 的完整實施是一個多階段過程。作為一項基本原則將該過程分為實施階段和改進階段。

實施階段最重要的目標是：

- 確定成功實施 EMS 的組織要求（責任）
- 通過初步環境評估搜集當前環境與能源績效的資訊，建立基準並搭建各環境問題之間的聯繫
- 執行數據評估，將其用於差距分析
- 確定需要採取的必要措施，並根據基準測試設定環境與能源目標和計劃
- 開始編制文檔、手冊和作業程序

### 執行環境評估

工廠必須建立程序，用於記錄與活動、產品和服務的環境因素、能源效率、能源使用和能源消耗有關的所有法律、監管及其他政策要求。

工廠應了解自身與環境之間的聯繫。這包括工廠中可能對環境造成影響的活動和產品的比例，還包括釋放、排放、材料的利用或重複利用、噪音排放等。工廠應確認並記錄對環境具有直接和間接影響的任何環境因素。該過程應包括正常和異常工藝條件、車間的開工和停工以及可預見的緊急情況：



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process should incorporate normal and abnormal process conditions, the start-up and shutdown of plants and foreseeable emergency situations:

- Under regular operating conditions
- Under irregular and unintentional operating conditions
- In the event of accidents and emergency situations

This record should cover:

- Controlled and uncontrolled emissions into the environment/air
- Controlled and uncontrolled discharge into waterways
- Uncontrolled ground contamination
- Solid waste and other wastes
- The use of land, water, fuels, energy and other natural resources
- Noise, dust, odours, vibrations and lighting
- The consequences for ecosystems and specific environmental areas

The results of this first assessment shall be documented and should be evaluated for benchmarking. The environmental assessment shall be updated at least once a year or in case of major changes in the production in terms of environmental impacts.

Other potential aspects of an environmental risk assessment include:

- The risks of any activities related to the environment
- Compliance obligations
- The needs and expectations of interested parties (customers, neighbours, suppliers, etc.) that may have an influence on the successful implementation of the environmental management system (for instance, through leakages, water availability and shortages, effects on climate change)
- Risks in relation to potential emergency situations, such as the storage of flammable liquids, compressed gases, tanks and their effect on the environment

One possible risk assessment method is described in chapter 4.5.10.

#### 4.3.10.2 Internal audit of environmental management

The facility shall have a procedure and particularly an audit plan/program for determining the suitability of the EMS. The key to this is to assess environmental management activities and their effective introduction and implementation. Internal audits of the environmental impact and management system shall be performed annually and according to

- 在正常操作條件下
- 在不定時出現的意外操作條件下
- 在發生事故和緊急的情況下

該記錄應包括：

- 朝環境/空氣中的受控和不受控排放
- 朝水體中的受控和不受控排放
- 不受控制的地面污染
- 固體廢料和其他廢料
- 土地、水、燃料、能源及其他自然資源的使用
- 噪音、粉塵、氣味、振動和照明
- 對生態系統和特定環境領域的影響

必須記錄首次評估的結果，並對其進行基準評估。每年應至少進行一次環境評估，或者在生產環境發生重大變化的情況下進行評估。

環境風險評估的其他潛在方面包括：

- 所有涉及環境的活動的風險
- 合規義務
- 相關各方（客戶、鄰居、供應商等）可能會對環境管理體系的成功實施（例如，通過洩漏、水資源可利用性和短缺、對氣候變化的影響）造成影響的需求和期望
- 與潛在緊急情況有關的風險，例如儲存易燃液體、壓縮氣體、儲罐及其對環境的影響

可能的風險評估方法見 4.5.10 章節

#### 內部環境管理審核

工廠應制定一套用於確定 EMS 適用性的程序，特別是一套審核計劃。該程序的關鍵在於評估環境管理活動及其有效的引入和實施。每年應對環境影響和管理體系進行內部審核。



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an audit plan/program containing the main points to be audited within 3 years.

A corresponding audit report shall be issued incl. name(s) of internal auditor(s), findings as well as a corrective and preventive action plan. Whenever possible, photos as evidence should be included. Furthermore it shall be defined who is accountable for ensuring the corrective action and a date for completion of such.

The audit plan/program shall include the individual activities, fields and locations for:

- Defining the frequency of audits for individual activities and fields taking their relevance to the environment and the results of past audits into account
- Defining responsibilities for introduction and implementation
- Specifications for the qualifications of persons who are to perform an audit. In particular, the following requirements should be met for these persons:
  - The greatest possible independence from other activities during the audit
  - Experience in the relevant specialist area
  - Support from specialists if needed
- The scope of documentation for implementing the audits
- Procedures for audit reporting

#### 4.3.10.3 Documentation of production units

A list or database should be maintained that contains the existing production units and their area of application, the age of machines (date of manufacture, commissioning), statements on specific potential ecological risks and hazards in the work area.

#### 4.3.11 Records

Lists or databases of chemical substances and mixtures used by the company shall be maintained. They should contain the internal facility product designation, the exact chemical designation and information about their average storage quantity. Potential ecological hazards and references to health and safety should be indicated (water hazards, flammability, hazard and safety signs, workplace concentrations). Hazardous materials should be classified accordingly. Up-to-date safety data sheets are required for all chemicals.

##### 4.3.11.1 Water

The water quality of the facility should be monitored. Any type of treatment of incoming water that is necessary to ensure high quality production should be documented and operational records of

應發佈相應的審核報告，包含內部審核員姓名、審核結果以及糾正與預防措施計劃。盡可能附上照片作為證據。此外，還應確定由誰負責確保採取糾正措施，以及完成糾正措施的日期。

審核計劃應包括各個活動、領域和地點，以：

- 根據各活動與環境的相關性及其過往審核結果確定對各場地和活動的審核頻率
- 確定引入和實施責任
- 說明執行審核的人員資格要求。具體而言，該類人員應滿足以下要求：
  - 在審核過程中最大程度地獨立於其他活動
  - 擁有相關專業領域的經驗
  - 如果需要，可以獲取專家的支持
- 實施審核的文檔記錄範圍
- 審核報告程序

#### 生產單位的文檔記錄

應保持一份清單或數據庫，其中包含現有生產單位及其應用領域、機器年限（製造、調試日期）、工作區域中特定潛在生態風險和危害的說明。

#### 記錄

應保持公司所用化學物質和混合物的清單或數據庫。其中應包含內部工廠產品名稱、準確的化學名稱以及有關其平均儲存量的信息。應指出潛在的生態危害和健康與安全參考（水危害、易燃性、危險和安全標誌、工作場所濃度）。應對有害物質進行相應的分類。所有化學品均要填寫最新的安全數據表。

#### 水資源

應對工廠的水質進行監測。應記錄能確保優質生產的所有必要類型的進水處理，並保留這些處理的操作記錄。如果進水質量發生變化且無法進行統計監測，



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these treatments should be retained. If the quality of incoming water varies and cannot be statistically monitored, the water should be tested for hazardous components. The water consumption shall be recorded and documented at least once per year.

#### 4.3.11.2 Wastewater and Sludge

Discharge points, wastewater routes, wastewater treatment plants and delivery locations should be recorded on a wastewater map for the overall facility. The point of transfer to the public water treatment plant and/or bodies of water should be specified.

The discharge points and the type of wastewater (groundwater, surface water, treated water) for individual process steps should be recorded and documented in a process diagram.

The objective for all wastewater should be to minimise the volume, concentrations of undesired chemicals and toxicity of the wastewater released into the environment and ultimately to strive to fully eliminate the discharge of polluted water. Wastewater should be as free from harmful chemicals as possible. This objective should be accomplished using chemical management and treatment options. The elimination of toxic substances in starting materials is preferred. The sludge from the wastewater treatment plant should not contain harmful substances. This objective should be accomplished using chemical management and treatment options. The elimination of persistent, toxic and bioaccumulating substances in starting materials is preferred for wastewater treatment.

#### 4.3.11.3 Air emissions

All individual emission sources with separate lines to the outside air should be recorded and documented on an emission map along with their corresponding chimney heights and diameters. References to existing exhaust air findings and limit values should be provided.

In addition, production steps and sources of uncontrolled, supplied emissions should be identified.

#### 4.3.11.4 Energy

Energy consumption for production is of central economic interest and an important ecological element. The responsible and economical consumption of energy is vital for environmentally friendly production.

The first step towards economical energy consumption should be a unit-specific or process-specific balance sheet of the energy consumed in order to identify weak points.

應對水中的有害成分進行檢測。每年應對用水量至少進行一次記錄和歸檔。

#### 廢水及污泥

應在整個工廠的廢水分佈圖上記錄排放點、廢水管路、廢水處理廠和最終去向。應指明通向公共水處理廠和/或水體的轉運點。

應記錄各個工藝步驟的排放點和廢水類型（地下水、地表水、處理過的水），並記錄到流程圖中。

所有廢水的目標應當是最大程度減少不期望化學品的體積、濃度和釋放到環境中的廢水毒性，並最終努力完全消除污水的排放。廢水中應盡可能不含有害化學品。應使用化學品管理和處理方案來實現這一目標。首選消除原料中的有毒物質。污水處理廠的污泥中不應包含有害物質。應使用化學品管理和處理方案來實現這一目標。就廢水處理而言，首選方案是消除原料中的持久性、毒性和生物累積性物質。

#### 廢氣排放

應將所有通過分離管道排入外部空氣的單獨排放源和相應的煙囪高度和直徑記錄在排放圖上。應提供現有廢氣結果和限量值作為參考。

此外，應確定產生不受控制的排放物的生產步驟和來源。

#### 能源

生產能耗對經濟利益具有重要影響，也是一種重要的生態要素。負責且經濟的能耗對於環保生產至關重要。

實現經濟能耗的第一步應當是編制針對特定部門或特定工藝的能耗平衡表，以便識別薄弱環節。



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An annual quantities and costs balance sheet of the individual forms of energy should be set out. If necessary, balance sheets containing the processed quantities should be recorded in detail for larger production modules.

Energy-saving options that are already in use should be specified in these individual balance sheets.

The use of alternative energies, particularly non-fossil, renewable energy sources, should be given preference, as far as they are ecologically safe.

#### 4.3.11.5 Solid waste

The type, quantity, origin and disposal of waste and residual materials should be documented. A balance of disposal costs and utilisation costs, including possible alternative methods of disposal, should be prepared. The primary objective should be to avoid generating waste.

Most countries have regulations and definitions of hazardous and non-hazardous waste. They should be observed. A substance balance sheet and assessment for waste generation and disposal with plans for improvements based on a goal of “zero” should be provided.

#### 4.3.11.6 Packaging and transport

Any packaging should be provided only to the extent that it is technically unavoidable. The use of single-use packaging material should be avoided to the greatest extent possible.

Reusable packaging systems or packaging made from recycled material should be preferred.

The quantity of packaging materials and its disposal should be documented.

#### 4.3.11.7 Delivery and storage

The site plan of the facility shall include the areas where chemicals are delivered, stored and supplied. The most important areas should be indicated.

A list or database containing the delivered chemicals, the place of delivery, the storage location, the place of consumption and the type of delivery and storage should be maintained.

Legal instructions for delivery and storage should be followed.

Storage places for hazardous chemicals shall be designed in such a way that the chemicals cannot escape into the environment. Only a limited and specially trained group of persons are to be able to remove the chemicals. Only quantities that are absolutely necessary from a technical perspective should be permitted in the production area. All containers with these chemicals shall be marked with

應列出各種能源形式的年度消耗量和成本平衡表。如有必要，應針對較大的生產模塊將包括處理量在內的信息詳細記錄在平衡表中。

應在這些單獨的平衡表中指明選擇使用了哪些節能措施。

就生態安全性而言，應優先考慮使用替代能源，特別是可再生的非化石能源。

#### 固體廢棄物

應記錄廢棄物和殘餘物質的類型、數量、來源和處置。應編制處置成本和使用成本平衡表，包括可能的替代處置辦法。主要目標應當是避免產生廢棄物。

大多數國家都制定了有關危險廢棄物和非危險廢棄物的法規和定義。應遵守這些法規。應提供物質平衡表以及對廢棄物產生和處置的評估結果，該評估結果中應包含基於“零排放”目標的改進計劃。

#### 包裝和運輸

任何包裝應僅在技術上不可避免的範圍內提供。應盡可能避免使用一次性包裝材料。

應首選可重複使用的包裝系統或由回收材料製成的包裝。

應記錄包裝材料的數量及其處置。

#### 交貨和儲存

工廠的總平面圖應包括交貨、儲存和提供化學品的區域。應標出最重要的區域。

應保持包含交付化學品、交貨地點、儲存地點和使用地點以及交付和儲存類型的清單或數據庫。

應遵守交貨和儲存的相關法律指令。

有害化學品儲存地點的設計應使化學品不會逃逸到環境中。只有有限和受過專門訓練的人才能夠移動化學品。在生產區域中，只允許儲存出於技術角度絕對必要的數量。所有裝有這些化學品的容器都應標有適當的警示標誌(GHS)和急救措施(採用國際公認的象形圖以及危險和安全標誌形式)。



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the appropriate warning symbol (GHS) and first aid measures (in the form of internationally acknowledged pictograms and danger and safety signs).

Potential ecological hazards due to harmful substances in raw materials should be assessed during incoming goods inspections.

Storage conditions of all kind of materials have to be considered according to their properties (e.g. cool and dry storage, light sensitivity, application of biocides).

An evaluation of suppliers based on environmental aspects should be carried out.

### 4.3.12 Acceptance of Third-Party certificates

Recognised third-party certificates that are of significance for environmental management systems are listed in Annex 8.

If a facility is certified by a third-party certification system, documents and records of the certification process, including the certificate and validity period, should be provided to OEKO-TEX®.

## 4.4 Social Responsibility

This module deals with the conditions of a facility or organisation with a focus on responsibility towards employees and their working conditions. Social responsibility addresses the following issues: child and juvenile labour, wages and benefits, employment status, freedom of association, collective bargaining agreements and working hours, including overtime regulations. This module also addresses how harassment, abuse and discrimination can be prevented in the facility. It deals with forced labour of any kind and the conditions for sanitary facilities, changing rooms, canteen/eating areas and dormitories.

The “Social Responsibility” module includes a management system that defines targets, generates programmes and designates responsible persons for training, monitoring and evaluating social and working conditions in the facility. The management policy must be defined with reference to the social and working conditions at the facility and in compliance with specified internal and external obligations and national and regional legal requirements.

### 4.4.1 Purpose

The “Social Responsibility” module covers the following topics:

- The management policy with regard to social responsibility (including targets, programmes and objectives, personnel and responsibilities such as management representatives, staff training, detailed measures with schedules and responsibilities)

在進貨檢驗過程中，應對原材料中有害物質導致的潛在生態危害進行評估。

必須根據材料的性質來考慮所有種類材料的儲存條件（例如，冷藏和乾燥儲存、光敏感性、生物殺滅劑的應用）。

應基於環境要素對供應商進行評估。

### 認可的第三方認證

附錄 8 中列出了對環境管理體系具有重要意義的受認可的第三方證書。

如果工廠通過第三方認證體系獲得認證，必須向 OEKO-TEX® 提供包括證書和有效期限在內的認證過程文件和記錄。

## 社會責任

本模塊涉及工廠或組織的條件，重點關注應對員工及其工作條件盡到的責任。社會責任涉及以下問題：童工和青少年工人、工資和福利、僱用狀況、結社自由、勞資協議和包括加班規定在內的工作時間。該模塊還涉及如何在工廠中防止騷擾、虐待和歧視。它涉及任何類型的強迫勞動和衛生設施、更衣室、食堂/飲食區和宿舍的條件。

“社會責任”模塊包括管理體系，該管理體系可確定目標、制定計劃並指定人員負責培訓、監測和評估工廠的社會和工作條件。管理政策的制定必須參照工廠的社會和工作條件，並遵守指定的內部和外部義務以及國家和地區的法規要求。

### 目的

“社會責任”模塊涵蓋以下主題：

- 關於社會責任的管理政策（包括目標、計劃和目的、人員和責任如管理代表、員工培訓、包含時間表和責任的詳細措施、操作程序的文檔記錄以及社會責任評估、內部審核和評估的實施）



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ties, documentation of operational procedures and the conducting of social responsibility assessments, internal audits and evaluations)

- Compliance with all legal, national and other requirements that apply to the facility
- Communication with relevant stakeholders
- Prevention of child labour
- Working environment for juvenile labour
- Work contracts
- Wages and benefits
- Freedom of association/right to collective bargaining
- Prevention of harassment and abuse
- Prevention of discrimination
- Prevention of forced, compulsory and prison labour and exploitation
- Provision of adequate sanitary facilities, canteen/eating areas and dormitories

#### 4.4.2 General information

#### 4.4.3 Social Responsibility Management System

A declaration of organisational responsibility and a management structure for issues related to social and working conditions should be the first step towards establishing a social responsibility management system. The company management nominates at least one person to be responsible for all aspects of the “Social Responsibility” module. This person is then responsible for all objectives and measures related to social responsibility, including the identification of risks and problems by conducting internal audits, compiling documentation and initiating corrective measures. Conducting and monitoring internal and external audits is part of this responsibility. This responsible person shall hold regular training sessions for all employees on the social responsibility aspects (e.g. Code of Conduct) and keep training records. The management representative responsible for social responsibility shall report directly to senior management at the facility. The responsible person for social compliance shall be trained regularly towards all aspects of the “Social Responsibility” module including any risks in this regard.

The management system policy shall be defined and documented to ensure that it is tailored to the activities and services of the facility and its social impacts. The facility shall fulfil all regulatory provisions and any other provisions in addition to the legal requirements. It must aim to prevent negative social impacts. A management system for social responsibility can be aligned with existing compliance systems or a company code of conduct. The

- 符合適用於工廠的所有法律、國家及其他要求
- 與重要的利益相關者溝通
- 防止僱用童工
- 為青少年勞動者提供安全的工作環境
- 勞務合約
- 工資和福利
- 結社自由/集體談判權
- 防止騷擾和虐待
- 防止歧視
- 防止強迫、強制勞動以及監獄勞工和剝削
- 提供足夠的衛生設施、食堂/飲食區和宿舍

#### 一般問題

#### 社會責任管理系統

要建立社會責任管理體系，第一步應當是針對社會和工作條件相關問題制定組織責任聲明並確定管理結構。公司管理層指定至少一人負責「社會責任」模組的各個方面。然後，此人負責制定與社會責任相關的所有目標和措施，包括通過內部審核來識別風險和問題、編製文檔以及啟動糾正措施。執行並監督內部和外部審核是這項責任的一部分。負責人應面向所有員工定期開展以社會責任（例如行為準則）為主題的培訓講座，並保留培訓記錄。負責社會責任的管理層代表應直接向工廠的高級管理層報告。社會合規負責人必須定期接受培訓，瞭解「社會責任」模組的各個方面，包括社會合規方面的任何風險。

應制定並記錄管理體系政策，以確保其適應工廠的活動和服務及其社會影響。除法規要求以外，工廠還應滿足所有監管規定及任何其他規定。其目標必須是防止出現負面社會影響。社會責任管理體系可以與現有的合規體系或公司品質合格承諾保持一致。工廠必須制定包含所有措施、責任、目標和程序在內的書面社會政策和/或品質合格承諾來保障其社會責任。書面社會政策或品質合格承諾應由上級管理部門的代表簽字。如果工廠通過第三方認證體系獲得



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facility shall have a written social policy and/or code of conduct containing all the measures, obligations, objectives and procedures for ensuring social responsibility. The written social policy or code of conduct shall be signed by a representative of upper-level management. If a facility is certified by a third-party certification system, the documents and records of the certification process, including the certificate and validity period, should be provided to OEKO-TEX®.

Detailed measures with schedules and responsibilities should be part of the social responsibility management programme. Regular social responsibility performance audits that include employee satisfaction, productivity metrics and employee performance should be performed. The results of the social responsibility performance audits and the resulting measures describe the approach used to develop and achieve the targets. The processes for fulfilling the defined requirements for social and working condition requirements and their documentation should be described.

The benchmarks and key figures to be reached to fulfil the social responsibility management programme should be recorded. Failure to comply with or meet them should be reported in a confidential way. Targets and key figures for the failure to fulfil or comply with the benchmarks should be documented. An internal list of all officially submitted complaints and their solutions/corrective measures shall be in place. It should be recognised that an increase in sustainability should be the objective of the existing facility. However, the facility should have special programmes for managing new projects and developments with the inherent aim of greater sustainability:

- Social objectives should be achieved and clearly defined
- Formal procedures for project changes and change orders for ensuring consistency with targets and objectives are required
- Management principles should be in line with current quality management standards
- Regular review by top-level management of the adequacy and constant effectiveness of benchmarks and procedures within the facility

The social responsibility objectives of the facility should be laid down in writing and published internally and/or externally. These objectives and achievements should be documented. The objectives should be consistent with the social policy and/or code of conduct. To ensure the social policy or code of conduct is also complied with by suppliers and subcontractors and within their entire sphere of influence, the facility should conduct training sessions on purchasing practices and monitor order quanti-

認證，則應向 OEKO-TEX®提供包括證書和有效期限在內的認證過程文件和記錄。

社會責任管理計劃應包括詳細的措施、時間表和責任。應定期進行社會責任績效審核，包括員工滿意度、生產力指標和員工績效。社會責任績效審核的結果和由此產生的措施應說明用於制定和實現目標的方法。應呈現滿足社會和工作條件要求的規定程序及其文件。

應記錄實現社會責任管理計劃應達到的基準和關鍵指標。不符合或不滿足這些要求時，應以機密方式上報。應記錄未實現或不符合基準的目標和關鍵指標。應當有一份內含所有經正式提交的投訴及其解決方案/糾正措施的內部清單。應該認識到，應將提升可持續性作為現有工廠的目標。不管怎樣，工廠都應以提升可持續性為目標制定特別計劃來管理新項目和發展：

- 必須實現並明確定義社會目標
- 需要制定正式的項目變更程序和變更單，以確保與目標和目的一致性
- 管理原則應與現行質量管理標準一致
- 頂層管理者需定期審查工廠內基準和程序的妥善性和持續有效性

應書面陳述工廠的社會責任目標並在內部和/或外部發行。應對這些目標和成績加以記錄。目標應與社會政策和/或品質合格承諾保持一致。為確保供應商和分包商在其整個影響範圍內遵守社會政策或品質合格承諾，工廠應開展有關採購實踐的培訓課程並監控訂單數量。工廠應擁有文檔記錄系統，確保符合社會責任管理體系的要求。





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ties. The facility shall have a documentation system that ensures compliance with the requirements from the social responsibility management system.

To the greatest extent possible, these objectives should constitute a quantitative, realistic commitment with a fixed time frame for the continuous improvement of performance in relation to social responsibility. Objectives and targets should go beyond the fulfilment of legal requirements.

#### 4.4.4 Laws and regulations

A collection of all the documents that form the basis for the legal existence and lawful operation of the company shall be available and kept ready for verification at any time. A list of the relevant national, regional and international laws and regulations that affect the organisation shall be available and structured so that it can be provided as content for audits and reviews at any time.

The facility shall be aware of the regional and national legal, regulatory and other requirements that are relevant to company operations at the facility and these requirements shall be accessible to and understood by the staff.

This applies to regulations that:

- Apply to the work at facilities, transport facilities, laboratories, offices, etc. (i.e. operational activities specific to the products and services)
- Apply to the designated use of products, goods, services and performance
- Apply to the relevant industry sector
- Are based on acknowledged global social standards, codes, principles or compliance systems

The responsible person has to act as the contact person for all matters related to social responsibility and shall be familiar with the contents of these laws and regulations. The responsible person shall ensure compliance with these laws and regulations. Compliance with all local (or national) legal requirements, the ILO Declaration on Fundamental Principles and Rights at Work, the UN Declaration of Human Rights and the OEKO-TEX® STeP requirements shall be ensured without exception.

#### 4.4.5 Stakeholder relations

Staff at the facility, including senior management, should be encouraged to maintain contact with their stakeholders. This contact should go beyond regional or international NGOs and unions. Dialogue with business partners is an important tool for keeping informed about the wishes and requirements of all the parties associated with the facility, including individuals such as workers and organisations such as suppliers, NGOs or political representatives in the region. The facility should consider

這些目標應盡可能構成切實可行的可量化承諾，即在一定時段內持續提升與社會責任相關的績效。目的和目標應高於法規要求。

#### 法律和法規

應提供形成公司合法存在和合法經營基礎的所有文件集，並隨時準備接受驗證。應按一定的結構框架提供影響組織的相關國家、地區和國際法律法規清單，以供接受審核和審查之用。

工廠應清楚與工廠營運相關的當地和國家法律、法規及其他要求，並且員工應當能夠得到和理解這些要求。

這適用於以下規定：

- 適用於工廠、運輸設施、實驗室、辦公室等的工作（即，針對特定產品和服務的經營活動）的規定
- 適用於按指定使用產品、商品、服務和性能的規定
- 適用於相關工業部門的規定
- 基於公認的全球社會標準、準則、原則或合規體系的規定

負責人必須擔任與社會責任相關的所有事宜的聯繫人，並熟悉這些法律法規的內容。負責人應確保遵守這些法律法規。應確保遵守所有當地（或國家）法律要求、《國際勞工組織（ILO）工作中的基本原則和權利宣言》、《世界人權宣言》和 OEKO-TEX® STeP 要求，無一例外。

#### 利益相關方之間的關係

應鼓勵工廠中包括高級管理層在內的工作人員與其利益相關者保持聯繫。這種聯繫必須超越地方或國際 NGO 和工會的要求。與業務合作夥伴的對話是了解與工廠相關的所有各方的願望和要求的重要工具，這些相關方包括工人等個人以及供應商、NGO 或該地區的政治代表等組織。工廠應考慮對當地社區進行投資，以支持當地的發展。



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making investments in local communities to support local developments.

Maintaining dialogue with all these stakeholders should be used as a means of developing and reviewing existing management systems. The facility should document all correspondence and communication with all the relevant business partner groups.

The compilation of a sustainability report, preferably based on established guidelines (for instance, the GRI; see also 4.3.9.2), should serve as a basis for communicating detailed information to interested parties and the public.

#### 4.4.6 Child and juvenile labour

Child labour shall be avoided in all the operational activities of the facility and in each sector related to its business activities, including its suppliers and subcontractors. The minimum employment age is 15 years, as per ILO no. 138. If the legal minimum age is higher, the facility shall comply with the regional or national legal requirements. To prevent the worst forms of child labour, the facility shall also comply with ILO no. C182.

A written social policy shall be developed concerning responses, remedial measures and communication in the event that workers who are younger than the minimum age are discovered and to implement a prevention system for recruitment and internal audits. This policy shall serve the interests of the child. To avoid any risks of employing children and juveniles below the minimum age, all workers shall prove their age through a valid document such as an ID card, birth certificate or family register. The prevention system should be used to continuously improve recruitment procedures. Training of managers and HR officers alongside local health/social workers and school and educational institution representatives could also help with such improvements.

If young workers are employed at the facility, a written policy on the presence and treatment of young workers shall be in place. Juvenile labour is defined as the age group between at least 15 and at most 18 years of age. These workers shall be protected by special working conditions. Workplace conditions with hazardous, toxic and dangerous materials for juvenile labour and work in areas of particularly high risk including night-time work are strictly prohibited. The facility shall comply with all the legal requirements for juvenile labour in relation to the type of work, working hours and occupational safety.

At least one person in the facility shall be responsible for all the legal requirements and for taking care of the needs and benefits of young workers. This person is responsible for all the measures to

與所有這些利益相關方保持對話，應用作發展和審查現有管理體系的一種手段。工廠應記錄與所有相關業務合作夥伴組的所有通信和溝通。

應將優選基於既定指南（例如，GRI；另請參見 4.3.9.2）編制的可持續報告作為向相關各方和公眾傳達詳細信息的基礎。

#### 童工及青少年工人

在工廠的所有經營活動以及與其商業活動相關的各部門（包括其供應商和分包商）中，應避免使用童工。根據 ILO 第 138 號公約規定，最低就業年齡為 15 歲。如果地方或國家擁有更高的法定最低年齡，則工廠應遵守地方或國家的法規要求。為防止最惡劣形式的童工勞動，工廠還應遵守 ILO 第 182 號公約。

必須制定書面社會政策，以便在發現工人年齡小於最低年齡的情況下作出應對、採取糾正措施和溝通，並作為實施人才招聘和內部審核預防體系的參照。該政策必須符合兒童的利益。為避免僱用低於最低年齡的兒童和青少年的任何風險，所有工人必須出示身份證、出生證明或戶口本等有效證件證明自己的年齡。應使用預防體系來持續改善招聘程序。對管理人員和人力資源專員、當地的衛生/社會工作者以及學校和教育機構代表進行培訓，也有助於實現此類改進。

如果工廠僱用了年輕工人，應制定招聘年輕工人及其應受待遇的書面政策。青少年工人是指年齡在至少 15 歲至最多 18 歲之間的勞工。這些工人應受到特殊工作條件的保護。嚴格禁止青少年工人在包含有害、有毒和危險物質的工作條件下工作，或在風險特別高的區域內工作（包括夜間工作）。工廠應遵守所有關於青少年工人的法規要求，包括工作類型、工作時間和職業安全。

工廠中至少應有一人負責執行所有法律規定，並照顧青少年工人的所有需求和福利。此人負責所有措施，以盡可能減少年輕工人的任何風險，並促進福利，例如福利計劃。年輕工人每週應擁有足夠的上課時間



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minimise any risk to young workers and to promote benefits, such as welfare programmes. Young workers shall be able to spend a sufficient amount of time per week in school without any wage deductions. The management policy shall prevent overtime for young workers and ensure appropriate working hours that take the legal framework conditions into account. The period of absence from their homes, including transport, working hours and school, shall not exceed 10 hours per day. When using apprenticeship schemes, the obligations to young workers shall be taken seriously and the company shall comply with all the legal requirements. The replacement of regular employment with apprenticeships or other exploitative practices is also prohibited.

#### 4.4.7 Wages and Non-Wage benefits

All staff at the facility shall be paid a wage for their work. At minimum, the minimum wage or, if higher, the industrial sector or collectively agreed wage shall be paid, which shall comply with ILO core conventions 26 and 131. Wages and non-wage benefits (including piecework rate) shall comply with all the legal requirements for wages, severance payments and non-wage benefits.

These legal requirements cover wage bonuses, overtime, working on weekends and on official public holidays and holiday pay. OEKO-TEX® STeP encourages all facilities to pay wages that cover all the basic requirements and costs based on regional needs and requirements while working the regular working hours and without bonus payments. A fair wage for a decent living standard includes remuneration for food (for the worker and his/her family), housing, essential needs (healthcare, clothing, transportation, education) and savings for unexpected events. The facility shall define a strategy or roadmap how to achieve living wage for all employees. The facility should set achievable goals, like levelling wages every year or set targets to achieve living wage within 3 to 5 years. Agreements with buyers (brands) that support living wage benchmarks through pricing or commitment should be part of the strategy / roadmap. Monitoring living wage in the region of the facility should be considered either internally, or externally following Asia Floor Wage Alliance calculated min. living wage, Anker Method in partnership with Global Living Wage Coalition, with support from NGO's (e.g. Clean Clothes Campaign), negotiation with union (with or without employers) or together with brands.

The social management system at the facility should promote the ongoing monitoring of wages, taking developments in society and local framework conditions into account. The internal monitor-

在校內學習，且不剋扣工資。管理政策應根據法律規定，防止讓年輕工人加班，並確保合理的工作時間。每天離家時間（包括交通、工作時間和上學時間）不得超過 10 小時。在採用學徒計劃時，公司應認真對待對年輕工人應盡的義務，並且應符合所有法規要求。另外，還應禁止用學徒或其他剝削做法取代正規僱用關係。

#### 工資和非工資福利

工廠的所有工作人員都應獲得相應酬勞。至少應獲得最低工資或者業內或共同商定的工資（以較高者為準），應遵守 ILO 第 26 和 131 號核心公約。工資和非工資福利（包括計件工資）應符合有關工資、遣散費和非工資福利的所有法律要求。

這些法律要求包括薪資獎金、加班費、週末和法定假日工作以及假日工資。OEKO-TEX® STeP 鼓勵所有工廠在不計算獎金的情況下，根據地區需求和要求支付能夠滿足所有基本要求和成本的工資，同時確保正常工作時間。體面生活所需的合理工資包括食物（工人及其家人）、住房、必要的需求（醫療保健、服裝、交通、教育）和意外事件儲蓄的報酬。工廠應制定策略或路線圖，以實現所有員工的生活工資。企業應設定可實現的目標，如每年將工資水準拉平，或設定在 3 至 5 年內實現生活工資的目標。與買家（品牌）簽訂協議，透過定價或承諾來支持生活工資基準，應成為策略/路線圖的一部分。應考慮在內部或外部對工廠所在地區的生活工資進行監測，如亞洲最低工資聯盟（Asia Floor Wage Alliance）計算的最低生活工資、與全球生活工資聯盟（Global Living Wage Coalition）合作的 Anker 方法、非政府組織（如清潔服裝運動）的支持、與工會（有或沒有僱主）的談判或與品牌商的合作。

工廠的社會責任管理系統應促進持續監控工資情況，並將社會發展和當地框架條件納入考量。工廠的內部監控系統應持續改善。該流程應（最好）基於集體談判協議，或考慮到工人的需求和支出的其他平衡談



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ing system at the facility should promote a continuous improvement process. This process should be based on collective bargaining agreements (preferably) or other balanced negotiations that take the needs and expenses of workers into account. This regular review shall be conducted by the social compliance officer. The process shall include monitoring of wage-related legal requirements, collective bargaining within the sector and inflation rates. The monitored changes should be incorporated into the continuous improvement of remuneration. If the company provides non-wage benefits, equal conditions need to be applied to all workers.

Wage deductions as disciplinary measures are prohibited. Wage deductions are permitted only in compliance with national or regional legal provisions. In each case, any wage deductions shall be recorded in writing in the facility personnel file and workers must be informed about any deductions in an understandable manner.

The facility shall provide a written policy on wages and benefits concerning deductions, minimum wage, welfare and non-wage benefits. This social policy shall also include regulations on shift work and overtime. All workers shall be provided with pay slips that include details of wages, the current payment period, overtime premiums and piecework rate calculations.

All workers should be provided with regular training on non-wage benefits, piecework rates and overtime calculations. Piecework rates shall be set out through achievable and appropriate targets in the written company policy. Social insurance shall be provided to all employees and its contributions and taxes shall be paid through the facility and displayed on the pay slip. Social insurance shall cover ensure access to medical care and health services, as well as income security throughout the life cycle, particularly in the event of illness, unemployment, employment injury, maternity, family responsibilities, invalidity, loss of the family breadwinner, as well as during retirement and old age. Wages shall be paid directly to workers either by cheque, bank transfer or similar. Payment shall be made on a defined regular basis (monthly at minimum) and without delay. The facility should provide accident insurance or another compensation system, or the facility shall guarantee and document liability obligations to ensure compensation payments for workers in the event of accidents or injuries.

#### 4.4.8 Employment relationship

Each employee (incl. subcontracted workers, home workers etc.) shall receive a written employment contract. The employee shall receive the original contract by his or her first day of work at the latest. This employment contract shall contain the exact

判。這種定期審核應由社會合規官執行。該流程應包括監測與工資有關的法律要求、行業內集體談判情況和通貨膨脹率。監控到的變化應納入持續提高薪酬的考量。如果公司提供非工資福利，則所有工人應享有同等條件。

禁止將扣除工資作為懲戒措施。只有在符合國家或地區法律規定的情況下，才允許扣除工資。無論在何種情況下，工資扣除應以書面形式記錄在工廠人事檔案中，並應以易於理解的方式將此類工資扣除情況告知工人。

工廠應提供有關扣除、最低工資、福利和非工資福利的書面工資和福利政策。該社會政策還應包括有關輪班工作和加班的規定。應向所有工人提供工資單，其中包括工資詳細信息、當前酬金期、加班費和計件工資費率計算。

所有工人都應定期接受有關非工資福利、計件工資率和加班費計算的培訓。計件工資率應在書面公司政策中透過可實現的適當目標加以規定。應為所有員工提供社會保險，其繳款和稅款應透過企業支付，並顯示在薪資單上。社會保險應涵蓋確保獲得醫療和保健服務，以及整個生命週期的收入保障，特別是在生病、失業、工傷、生育、家庭責任、殘疾、失去家庭經濟支柱以及退休和老年期間。工資應以支票、銀行轉帳或類似方式直接支付給工人。工資應按規定定期支付（至少每月一次），不得拖延。設施應提供意外傷害保險或其他賠償制度，或設施應保證並記錄責任義務，以確保在發生意外傷害事故時向工人支付賠償金。

#### 僱傭關係

員工（包括外包員工和在家辦公員工）均應收到書面僱傭合同。員工最遲應在他或她工作首日收到正本合同。該僱傭合同必須包含確切的僱傭條款和條件，包括工作時間、福利及薪酬。應遵守相關法律規定，如源於集體協定和 ILO 中有關僱傭合同的核心勞工



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terms and conditions of employment, including working times, benefits and remuneration. Legal provisions such as those arising from collective agreements and ILO core labour standards for employment contracts shall be complied with. In this way, companies endeavour to provide the greatest possible protection for employees. The employer shall ensure that the employee has understood the contract and that the work is performed on the basis of accepted bargaining agreements.

The facility shall create a personnel file for each employee on the day of recruitment. It should document participation in internal training sessions, incidents of undisciplined conduct and the measures required as a result.

The facility should have a written recruitment and termination policy and a written policy on development programmes and financial benefits. Employees in the HR department and other related departments shall receive regular training to ensure compliance with this policy and regional and national legal requirements. The use of employment agencies in recruitment procedures is prohibited. Recruitment agencies shall be treated as subcontractors and monitored in accordance with this standard. Subcontracted workers from recruitment agencies have the same rights and benefits as to all other workers. The HR department should document and continuously monitor the number of temporary workers, foreign workers and people who work from home. The rate of fluctuation should also be recorded. The facility parental leave periods shall comply with all legal requirements. If there are no applicable legal requirements, the company shall guarantee paid maternity leave as per the framework conditions of ILO 183 and create an internal policy.

#### 4.4.9 Freedom of Association and collective bargaining

The facility shall comply with all regionally, nationally and internationally applicable legal requirements regarding the freedom of association and the right to collective bargaining. In countries in which the law prohibits or restricts freedom of association or collective bargaining, the company is not permitted to hinder alternative and legal forms of independent and free worker representation and collective bargaining in compliance with ILO core conventions 87, 98, 135, 154. The company shall explicitly promote on alternative means of representing workers in countries whose national laws prohibit or impede union organizing to promote and defend the interests of workers or employees. Workers shall have the right to form, join and organise a union/ collective bargaining. The facility shall encourage workers to nominate and

標準的法律規定。通過這種方式，公司力求為員工提供最大程度的保障。僱主須確保員工已理解合同，並確保在經認可的談判協定的基礎上執行工作。

工廠應在招聘當天為每位員工創建人事檔案。該人事檔案應記錄員工參加內部培訓課程事宜、違紀行為事件以及由此需要採取的措施。

工廠應制定書面招聘和解聘政策以及書面發展計劃和財務效益政策。人力資源部門及其他相關部門的員工應定期接受培訓，確保遵守該政策以及當地和國家法律要求。禁止在招聘程式中使用職業介紹所。應將招聘機構視為分包商，並根據本標準對其進行監督。來自招聘機構的外包員工享有與其他員工相同的權利和福利。人力資源部門應記錄並持續監控臨時工、外籍工人和在家辦公人員的數量。還應記錄波動率。工廠的產假應符合所有法律要求。如果沒有適用的法律要求，公司應根據 ILO 第 183 號公約的框架條件保證帶薪產假，並制定內部政策。

#### 結社自由和集體談判權

工廠應遵守有關結社自由和集體談判權的所有地區、國家和國際適用法律要求。在法律禁止或限制結社自由或集體談判權的國家，公司不得妨礙依照國際勞工組織第 87、98、135 和 154 號核心公約的規定，以其他合法形式代表工人進行獨立和自由的集體談判。如果公司所在國家的法律禁止或阻礙工會組織促進和捍衛員工或員工的利益，企業應明確提倡其他可代表工人的替代方式。工人應有權組成、加入和組織工會/集體談判。工廠應鼓勵工人提名和選舉一名代表，作為向管理層反映工人需求和建議的發言人。



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elect a representative to act as a spokesperson for bringing the needs and suggestions of workers to the attention of the management.

Regular training on freedom of association, guidelines on the right to collective bargaining, procedures and applicable legal requirements should be provided for all workers. A written management policy shall include all the key figures regarding freedom of association, collective bargaining agreements and related legal provisions. Unions and employee representatives shall have access to all workstations.

The management policy shall protect employee representatives and all members of unions or wage agreements from discrimination, harassment, intimidation or retaliation due to their commitment.

#### 4.4.10 Grievance Mechanism

OEKO-TEX® references to the OECD Due Dilligance Guidance on the garment and footwear sector and relies on the core criteria of operational-level grievance mechanisms: Legitimate, accessible, predictable, equitable, transparent, dialogue-based

The facility shall implement a formal communication system that includes an internal grievance system with a procedure where workers can communicate their complaints to the responsible person within the facility (e.g. complaints box). The system shall include corrective actions describing types of complaints, analysis, remediation and actions taken.

Additionally to the internal grievance mechanism the facility shall provide a mechanism to all workers where they can communicate their complaints externally. The OEKO-TEX® complaint mechanism or an alternative external complaint mechanism shall be used. The OEKO-TEX® complaint mechanism is established to inform the OEKO-TEX® Secretariat about any compliance breaches of the company requirements. A complaint should be sent to the Email address: [complaint@oekotex.com](mailto:complaint@oekotex.com)

The internal grievance system and OEKO-TEX® complaint mechanism shall be accessible to all employees including the Email [complaint@oekotex.com](mailto:complaint@oekotex.com). The grievance mechanisms should not undermine other means of dispute resolution.

#### 4.4.11 Working hours

The facility working times shall comply with all nationally and regionally applicable legal requirements, ILO core conventions 1 and 14 and wage agreements. That includes regular working time, overtime, vacation, off-season work and public holidays. Workers shall be granted the opportunity to participate in religious holidays. To avoid exces-

必須向所有工人提供關於結社自由、集體談判權利指南、程序和適用法規要求的定期培訓。書面管理政策應包括所有關於結社自由、集體談判協議和相關法律規定的關鍵指標。工會和員工代表應有權訪問所有工作站。

管理政策應保護員工代表和所有工會或工資協議成員，使其免於因其所做的事而受到歧視、騷擾、恐嚇或報復。

#### 申訴機制

OEKO-TEX®參考經合組織 ( OECD ) 制定的《服裝和鞋業負責任的供應鏈盡職調查指南》，並採用運營層面申訴機制的核心標準：合法性、可訪問性、可預測性、公平、透明、基於對話性

工廠應實施正規的溝通制度，包括內部申訴機制和程序，以便員工可以向工廠負責人進行投訴（例如意見箱）。該機制必須包含糾正措施，以描述投訴類型、分析、補救和採取的行動。

除內部申訴機制外，工廠還必須設立相關機制，以便所有員工都能夠進行外部投訴。可採用 OEKO-TEX®投訴機制或其他外部投訴機制。建立 OEKO-TEX®投訴機制，旨在向 OEKO-TEX®秘書處通報任何違反公司要求的違規行為。應將投訴發送至電子郵件地址：[complaint@oekotex.com](mailto:complaint@oekotex.com)

內部申訴機制和 OEKO-TEX®投訴機制應面向所有員工，包括電子郵件 [complaint@oekotex.com](mailto:complaint@oekotex.com) 也應對其開放。申訴機制不應削減其他解決糾紛的方式。

#### 工作時間

工廠工作時間應符合所有國家和地區適用的法律要求、ILO 第 1 和 14 號核心公約和工資協議。其中包括正常工作時間、加班、假期、淡季工作和法定假日。工人應有機會參加宗教節慶。為避免工作時間過長，工人應至少每七天休息一天。每週工作時間不得超過 48 小時（不含加班時間）。



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sively long working hours, workers shall have at least one day off in seven. Excluding overtime, a working week shall not exceed 48 hours.

Overtime shall be worked on a voluntary basis. The assignment of overtime is permitted only as part of a collective bargaining agreement. Overtime shall be paid with a premium and shall not exceed 12 hours per week. Overtime shall be paid at 125% of the regular wage or on the basis of legal requirements or collective bargaining agreements, whichever is higher. Due to the yearly low and high season periods, the facility shall set out the maximum working hours during these periods in writing and shall communicate this provision to the workforce.

All employees shall be granted sufficient break periods during their work, including regulations for vulnerable individuals like - but not restricted to - juvenile workers, young mothers, pregnant women. The legal regulations and applicable collective bargaining agreements shall be complied with in this regard.

Employees, management and directors should receive training regarding working time directives and the applicable legal provisions. These training sessions should be held on a regular basis. The facility shall nominate a responsible person for all time monitoring key figures and records who has knowledge of the legal provisions.

#### 4.4.12 Harassment and abuse

All employees shall be treated with dignity and respect. The working conditions at the facility shall comply with all regionally, nationally and internationally applicable legal provisions concerning harassment and abuse at the workplace. Neither physical punishment nor wage deductions are permitted as disciplinary measures. Verbal attacks and any form of coercion against the worker are also not permitted. Disciplinary measures shall take into account existing legal provisions and shall be documented in writing (e.g. in the personnel file).

A written policy for avoiding physical, psychological, verbal or sexual abuse and harassment (including gestures and touching) shall be compiled. This policy shall also include a prevention system for avoiding harassment and abuse at the workplace, in dormitories or in other areas of the facility. Such conduct shall not be tolerated by the employer. An anonymous complaints system for eliminating harassment and abuse shall be in place. A designated trusted person shall be made available to review anonymous complaints from workers. Such an ombudsperson should be available for each gender.

Training on the prevention of harassment and abuse at the workplace and the applicable legal requirements should be conducted for all employees

應在自願的基礎上加班。僅允許將加班安排作為集體談判協議的一部分。加班費必須按溢價支付，並且每週加班時間不得超過 12 小時。加班費標準是正常工資的 125%，或根據法規要求或集體談判協議確定，以較高者為準。由於每年有淡季和旺季之分，工廠應以書面形式確定在這些時段的最長工作時間，並將這一規定傳達給員工。

所有員工在工作期間應獲得足夠的休息時間，遵守包括針對弱勢群體（但不限於未成年工、年輕母親、孕婦）的規定。在這方面，應遵守法律規定和適用的集體談判協定。

員工、管理層和董事應接受有關工作時間指令和適用法律規定的培訓。應定期舉辦這些培訓課程。工廠應指定一位熟悉法律規定的負責人，全天候監控關鍵指標和記錄。

#### 騷擾和虐待

應維護所有員工的尊嚴并給與他們尊重。工廠的工作條件應遵守當地、國家和國際上有關工作場所騷擾和虐待的所有適用法律規定。不允許將體罰或扣除工資作為懲戒措施。也不允許對工人進行口頭攻擊和施以任何形式的脅迫。懲戒措施應考慮到現有的法律規定，並且應以書面形式記錄在案（例如，記錄在人事檔案中）。

應編製書面政策，以避免身體、心理、言語以及性虐待和性騷擾（包括手勢和觸摸）。該政策還應包括預防體系，以避免在工作場所、宿舍或工廠其他區域發生騷擾和虐待。用人單位不得姑息此類行為。應建立旨在消除騷擾和虐待的匿名投訴體系。應指定可信賴的專員負責審查工人的匿名投訴。此類監察員應分設男性和女性。

應定期對所有員工進行有關預防工作場所騷擾和虐待以及適用法規要求的培訓。預防還包括傳達懲戒措施。對於遭受騷擾/虐待的工人，應提供有效的援



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on a regular basis. Prevention also includes the communication of disciplinary measures. A functioning support or welfare programme, such as professional counselling, should be in place for workers who have been the victim of harassment/abuse. To uncover the risk of harassment and abuse, social compliance audits should be conducted on a regular basis.

#### 4.4.13 Discrimination

The facility shall comply with ILO's core conventions 110, 111, 159 and all regionally, nationally and internationally applicable legal requirements concerning all forms of discrimination.

All workers shall be treated equally and given the same opportunities based on performance and skills, with no discrimination due to race, origin, disability, religion, caste, ethnic background, gender, age, sexual orientation, union or political affiliation or any other personal and physical characteristics. Equal treatment of all employees shall form part of a non-discriminatory employment, recruitment and promotion policy. The facility should encourage and practice diversity in the recruitment of employees. The facility shall pay equal wages regardless of gender, ethnic background or other physical or personal characteristics. Discrimination shall not be tolerated by the employer. The company policy should include a monitoring system for identifying and reviewing any risks of discrimination. Routine surveys should be conducted to assess whether and to what extent the workers feel that they receive fair, equal and satisfactory treatment.

If a medical test is required by law (e.g. HIV testing), it is not considered to be discriminatory but shall be documented and monitored. Medical tests for pregnancy during the recruitment process and during the period of employment are strictly prohibited.

Workers, managers and directors at the facility should receive regular training in relation to anti-discrimination directives and applicable legal provisions.

#### 4.4.14 Forced, bonded, indentured and prison labour

The facility shall comply with ILO's core conventions 29 and 105 and all regional, national and international legal requirements regarding forced labour, exploitation, compulsory and prison labour. A policy shall be developed to ensure that employees are not restricted in terms of their personal freedom and are in possession or control of their own identity cards, work permits and travel documents. Any forms of slavery, such as Sumangali, are strictly prohibited. During working hours, personnel and workers shall be allowed to use toilets, drink tap

助或福利計劃，例如專業諮詢。為揭露騷擾和虐待的風險，應定期進行社會責任審核。

#### 歧視

工廠應遵守 ILO 第 110、111、159 號核心公約以及當地、國家和國際上有關所有形式的歧視的適用法律要求。

應對所有工人一視同仁，並根據表現和技能提供同等的機會，不得因為人種、出身、殘疾、宗教、等級、種族背景、性別、年齡、性取向、工會或政治派別，或因任何其他個人及身體特徵而產生歧視。平等對待全體員工應為非歧視性僱用、招聘和升職政策的內容。工廠在招聘員工時應鼓勵並實現多樣化，應不論員工性別、種族背景或其他個人及身體特徵而提供同等薪酬。用人單位不得姑息歧視行為。公司政策必須包括識別和審查任何歧視風險的監控措施。應開展例行調查，評估工人是否以及感受到何種程度的公平、平等和滿意的待遇。

如果法規要求進行醫學檢查（例如，HIV 檢測），不應將其視為歧視性舉措，還應予以記錄和監督。嚴格禁止在招聘過程中和僱用期間進行妊娠醫學檢查。

工廠的工人、管理人員和董事應定期接受有關反歧視指令和適用法律規定的培訓。

#### 強迫、抵債、契約和監獄勞工

工廠應遵守 ILO 第 29 和 105 號核心公約以及所有區域性、國家和國際性有關強迫勞動、剝削以及強制性監獄勞工的法律要求。應制定政策確保員工不受人身自由限制，持有或控有自己的身份證、工作證及旅行證件。嚴禁任何形式的奴隸制，如童工。依據勞動法，員工和工人在工作時間內，允許使用洗手間、喝水和休息，而不用擔心紀律懲罰。





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water and take breaks as defined by labour law without fear of disciplinary punishment.

The company policy shall strictly prohibit the collection of deposits or security payments during the recruitment process and during further employment. In addition, any support of human trafficking shall be prohibited. Workers shall be free to quit their jobs without contractual penalty if they give reasonable notice. Workers shall have the right to move freely without any restrictions during non-working hours.

The facility should operate with a monitoring system to prevent any risk of forced, bonded, indentured and prison labour in the recruitment process. This includes the prohibition of the use of labour brokers.

The facility should train workers, managers and directors regarding the prevention of forced, bonded, indentured and prison labour and on contractual labour practices and the applicable legal requirements. Security staff shall receive special training on a regular basis.

#### 4.4.15 Sanitary facilities, changing rooms, canteen/eating areas and dormitories

The facility shall comply with all regionally, nationally and internationally applicable legal requirements concerning sanitary facilities. Sanitary facilities, particularly toilets and washrooms, shall be made permanently accessible in sufficient quantity to all workers in the facility areas and dormitories areas. They shall be free to use and the facility shall employ staff to clean and maintain the sanitary facilities.

If meals are provided in the facility during working hours and if any employees live in accommodation at the facility, the food and dormitories shall comply with all the regional and national legal requirements. The facility management policy shall include clean and well maintained food storage and canteen/eating areas. The food provided shall be optional for workers and be comparable to local conditions. If food is provided, the quantities shall be appropriate and the conditions shall be hygienic. Free and clean drinking water shall be available to all workers at all times. The water quality shall be monitored by the company.

Dormitories at the facility shall comply with all applicable local and national legal requirements. To monitor this compliance, the facility should perform regular assessments of the sanitary facilities and its maintenance. The dormitories should be located in buildings that are separated from production and storage areas. The personal space in the dormitories shall be adequate and should guarantee priva-

公司政策應嚴厲禁止在招聘過程中和續聘期間收取訂金或保證金。此外，應禁止對人口販賣予以任何支持。如果工人給予合理的通知，則可以自由辭職，而不必支付違約金。在非工作時間內，工人有權不受任何限制地自由行動。

工廠必須實施監控系統，防止招聘過程出現僱用強迫、抵債、契約和監獄勞工的任何風險。其中包括禁止使用勞工代理人。

工廠應向工人、管理人員和董事提供有關防止強迫、抵債、契約和監獄勞工以及合約勞動實踐和適用法規要求的培訓。保安人員應定期接受特殊培訓。

#### 衛生設施、更衣室、食堂/就餐區和宿舍

工廠應遵守當地、國家和國際上有關衛生設施的所有適用法規要求。應為工廠區和宿舍區的所有工人提供數量充足的衛生設施，特別是廁所和洗手間。這些設施應免費使用，工廠應僱用相應的人員進行清潔和維護。

如果工廠在工作時間內提供食物，並且如果有員工住在工廠內，則食物和宿舍應符合當地和國家的所有法規要求。工廠管理政策應包括清潔和維護良好的食品儲存和食堂/就餐區。提供的食物可供工人選擇，並且應符合當地情況。如果提供食物，則應保證適當的數量，並且應符合衛生條件。應隨時為所有工人提供免費的清潔飲用水。公司應對水質進行監督。

工廠的宿舍應符合當地和國家的所有法規要求。為監督其合規情況，工廠必須定期對衛生設施及其維護情況進行評估。宿舍應位於獨立於生產區和儲存區的建築物內。宿舍中應有足夠的私人空間且應當保證隱私。宿舍應由工人自行選擇是否居住，並且應符合當地情況。應遵守第 4.6.3 章中的建築物安全性要求。在適用的情況下，應提供符合法規要求的幼托設施。



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cy. Dormitories shall be optional for workers and shall be comparable to local conditions. The building safety requirements in chapter 4.6.3 are to be complied with. Where applicable, childcare facilities should be provided and shall also comply with legal requirements.

At least one person shall be appointed by the facility to take responsibility for all the needs and tasks in relation to ensuring well maintained, safe and clean changing rooms, sanitary facilities, canteen/eating areas and dormitories. This responsible person shall be notified to employees as the contact person for these matters, and reports directly to management.

A management policy shall be introduced that covers all matters related to sanitary facilities, canteen/eating areas and dormitories. The facility should provide workers, managers and directors with training regarding the management policy on sanitary facilities, canteen/eating areas and dormitories.

#### 4.4.16 Acceptance of Third-Party certificates

Recognised third-party certificates that are of significance for social responsibility are listed in Annex 8.

If a facility is certified by a third-party certification system, documents and records of the certification process, including certificates and validity periods, should be provided to OEKO-TEX®.

### 4.5 Quality Management

Quality management consists of a management system and its introduction and application. ISO 9001 is the preferred accredited model. This standard is of vital significance and is acknowledged worldwide as the most successful and reliable standard for documentation and practice. It also incorporates the field of general management and other fields that are not covered by other modules.

The process of achieving business excellence and contemporary approaches such as risk assessments and corporate governance form a part of quality management with OEKO-TEX® STeP. These issues are extremely important and have a significant effect in the area of sustainability. The company's sustainable behavior is closely linked to the quality policy and agreements made with other companies. Management interest in sustainability is therefore hugely important.

#### 4.5.1 Purpose

The introduction of a Quality Management System (QMS) and additional management tools such as business excellence, risk management and corpo-

工廠應指定至少一人負責確保維護良好、安全和清潔的更衣室、衛生設施、食堂/就餐區和宿舍的所有需求和任務。應告知員工該負責人為處理這些問題並直接向管理層匯報的聯繫人。

應制定涵蓋所有衛生設施、食堂/就餐區和宿舍相關事項的管理政策。工廠應向工人、管理人員和董事提供有關衛生設施、食堂/就餐區和宿舍管理政策的培訓。

#### 認可的第三方認證

附錄 8 中列出了對社會責任具有重要意義的受認可的第三方證書。

如果工廠獲得了第三方認證體系的認證，則應向 OEKO-TEX® 提供包括證書和有效期限在內的認證過程文件和記錄。

#### 質量管理

質量管理包括管理體系及其引進和應用。ISO 9001 是首選受認可的模型。該標準具有重要意義，並且是全球公認的最成功且最可靠的文檔和實踐標準。它還包括一般管理領域及其他模塊未涵蓋的其他領域。

實現卓越經營的過程以及風險評估和公司治理等現代方法構成 OEKO-TEX® STeP 品質管理的一部分。這些問題極其重要，並且在可持續性領域具有重大影響。公司可持續的行為與公司的質量方針以及與其他公司達成的協定密切相關。因此，管理層對可持續性的關注非常重要。

#### 目的

引進品質管理體系 ( QMS ) 和卓越經營、風險管理和公司治理等其他管理工具是基本的戰略性業務決策。這些因素的設計和範圍在很大程度上取決於工



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rate governance is a fundamental strategic business decision. The design and scope of these factors largely depend on the needs/interests of a facility. Neither ISO 9001 nor OEKO-TEX® stipulate a specific form of rollout of these management systems. The basic system is the most important (e.g. ISO 9001). ISO 9001 certification is not obligatory to obtain OEKO-TEX® STeP certification. However, any quality system should maintain product quality and processes and objectively demonstrate continuous improvement in all areas of the business without (necessarily) involving written procedures.

A QMS framework is required to obtain OEKO-TEX® STeP certification. The scope of the OEKO-TEX® STeP “Quality Management” module consists of a QMS and additional facets such as risk management and corporate governance. Essentially, a QMS should fulfil the requirements of the ISO 9000 series of standards or a comparable standard. The presence of such a system (certified or not) forms the entry-level basis for OEKO-TEX® STeP. Providing proof of such a system through a certificate minimises the amount of time and effort that OEKO-TEX® needs for verification and auditing.

Quality management systems as described, for example, in the ISO 9000 series of standards, include formal requirements. The following points/paragraphs are of a general nature and can be applied to any sectors regardless of the type or size of products provided.

At minimum, an effective quality management system shall include the following items:

- Quality Policy
- Process description (documentation of work flows and material flows)
- Clearly defined responsibilities that are disclosed and known throughout every level of a company
- Product traceability
- Quality control system
- Continuous employee training and knowledge management
- Continuous improvement process

#### 4.5.2 Management of quality, operating and sustainability policy and its objectives

A QMS is a management tool and a documented description of the process and activities involved in achieving quality management objectives. It shall include documentation that describes the QMS procedures and its introduction, maintenance and communication. In addition to the basic system for implementing the ISO 9001 standard, OEKO-TEX® also values the process of obtaining business excel-

廠的需求/利益。ISO 9001 或 OEKO-TEX® 均未規定運用這些管理體系的具體方式。基本體系最重要(例如 ISO 9001)。通過 ISO 9001 認證不是獲得 OEKO-TEX® STeP 認證的強制要求。但是,任何質量體系都應保持產品品質和工藝,並客觀地展示各業務領域的持續改進,無需(非強制要求)涉及書面程式。

需要擁有 QMS 框架才能獲得 OEKO-TEX® STeP 認證。OEKO-TEX® STeP “品質管理”模組的範圍包括 QMS 以及風險管理和公司治理等其他方面。從本質上講,QMS 須滿足 ISO 9000 系列標準或同類標準的要求。存在此類體系(無論是否通過認證)是 OEKO-TEX® STeP 的入門級基礎。通過證書提供此類體系的證明,可最大程度減少 OEKO-TEX® 驗證和審核所需的時間和精力。

例如,ISO 9000 系列標準中所述的質量管理體系包括形式要求。以下要點/段落具有一般性,無論所提供產品的類型或尺寸如何,所有部門均適用。

有效的質量管理體系至少應包括以下內容:

- 品質方針
- 過程描述(記錄工作流程和物料流的文檔)
- 明確界定的責任,需在公司的各個層級公開並使人知悉
- 產品可追溯性
- 質量控制體系
- 持續的員工培訓和知識管理
- 持續的改進過程

質量、營運和可持續性政策的管理及其目標

QMS 是一種管理工具和對實現質量管理目標所涉及的過程和活動的文檔描述。它須包括描述 QMS 程序及其引進、維護和溝通的文檔。除用作實施 ISO 9001 標準的基本體系以外,OEKO-TEX® 還重視實現卓越經營並在風險管理和公司治理領域引入現代管理方法的過程。



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lence and introducing contemporary management approaches in the field of risk management and corporate governance.

The company shall establish, operate and maintain at least one QMS. The format of the QMS should ensure that the organisational activities are in accordance with the specified management of quality policy and its corresponding objectives. The ISO 9000 series of international standards are recognised here as a model template for integrated QMS platforms.

The organisation should improve its effectiveness, particularly in relation to its quality and sustainability objectives. For this purpose, OEKO-TEX® works with the requirements of the ISO 9001 standard with regard to general requirements and documentation requirements such as the quality manual, document control and record control.

### 4.5.3 Management responsibility

#### 4.5.3.1 Management duties

Upper-level management commits to engage itself with the responsibilities of a management system. Members of management should make explicit comment on the subject and demonstrate their interests in developing and promoting management systems by:

- Informing all stakeholders about the importance of quality
- Setting and achieving goals
- Defining a quality policy and targets for their system
- Providing appropriate resources (e.g. personnel, plants, equipment, IT)
- Ensuring appropriate planning
- Regularly verifying system performance

#### 4.5.3.2 Customer orientation

Management should identify customer requirements and attempt to increase customer satisfaction.

#### 4.5.3.3 Quality Policy

The management team is responsible for complying with requirements (including legal provisions) for safeguarding the management and quality policy for the management review and providing the necessary resources. The facility shall compile and apply a quality policy. The management team should commit to meeting the requirements of the quality system, including continuous improvement. The management team should communicate this policy and ensure that it has been understood.

Management should ensure that the quality policy:

公司須建立、營運和維護至少一套 QMS。QMS 的格式應確保組織活動與指定的質量管理政策及其相應目標一致。在此，國際標準 ISO 9000 系列被認為是集成 QMS 平台的模型模板。

組織應提高其效能，尤其是關乎其質量和可持續性目標的效能。為此，OEKO-TEX®採納了 ISO 9001 標準的一般要求和文檔要求（例如質量手冊、文件控制和記錄控制）。

### 管理層責任

#### 管理層職責

高層管理人員需確保承擔管理體系的責任。管理層成員應該就該主題發表明確意見，並通過以下方式證明其對發展和促進管理體系的關注：

- 告知所有利益相關者質量的重要性
- 制定和實現目標
- 為其體系確定質量方針和目標
- 提供足夠的資源（如人力、廠房、設備、信息技術）
- 確保進行充分的規劃
- 定期驗證體系效能

#### 關注客戶

管理層應確定客戶要求並努力提高客戶滿意度。

#### 品質方針

管理團隊有責任遵守相關要求（包括法律規定）以使管理得到保障、遵循質量方針以便管理審查並提供必要的資源。工廠應制定並應用質量方針。管理團隊應致力於滿足質量體系的要求，包括持續改進。管理團隊應傳達該方針並確保其得到理解。

管理層應確保質量方針：



STeP

- Is appropriate
- Constitutes an obligation to achieve continuous improvements and to effectiveness in the business
- Constitutes a tool that can be used to defined and assess targets
- Has been communicated and understood
- Incorporates any specified/agreed improvements

The management team should deliberately develop systematic plans for applying/using the quality policy. The quality policy provides assistance in the formulation of measurable quality targets.

#### 4.5.3.4 Quality planning

The management team should set measurable objectives and suitable plans for achieving these objectives. The management team should ensure that the plans are achieved at the relevant points within the organisation

#### 4.5.3.5 Responsibility and authorisation

The management team should specify and communicate who is responsible for which tasks and define responsibilities and authorisations. A member of upper-level management should be given overall responsibility for the quality system. Effective methods of internal communication should be in place.

#### 4.5.3.6 Internal audit and management review

A management system is a living system and should be dynamic. Therefore, the QMS should be reviewed in frequent and regular intervals. The facility shall have a procedure and particularly an audit plan/program for determining the suitability of the QMS. The key to this is to assess quality management activities and their effective introduction and implementation. Internal audits of the quality system shall be performed annually and according to an audit plan/program containing the main points to be audited within 3 years.

A corresponding audit report shall be issued incl. name(s) of internal auditor(s), findings as well as a corrective and preventive action plan. Whenever possible, photos as evidence should be included. Furthermore it shall be defined who is accountable for ensuring the corrective action and a date for completion of such.

The system and its performance has to be reviewed by the management with an input and output approach that considers the following aspects:

- Customer feedback
- Performance, non-compliance

- 適當
- 構成實現持續改進和業務效率的義務
- 構成可用於確定並評估目標的工具
- 已得到傳達和理解
- 包含任何指定/商定的改進

管理團隊應謹慎制定應用/使用質量方針的系統計劃。質量方針有助於制定可量化的質量目標。

#### 質量策劃

管理團隊必須設定可測目標和實現這些目標的合適計劃。管理團隊必須確保計劃在組織內的有關地點得以實施

#### 責任和授權

管理團隊必須明確和傳達各人負責的任務，並確定職責和權限。高層管理人員應全面負責質量體系。應建立有效的內部溝通方法。

#### 內部管理評審

管理體系是一個不斷發展變化的體系，應保持動態。因此，應定期對 QMS 進行頻繁的定期審查。工廠應制定一套用於確定 EMS 適用性的程序，特別是一套審核計劃。該程序的關鍵在於評估環境管理活動及其有效的引入和實施。每年應按照包含 3 年內主要待審事項的審核計劃，對環境影響和管理體系進行內部審核。

應發佈相應的審核報告，包含內部審核員姓名、審核結果以及糾正與預防措施計劃。盡可能附上照片作為證據。此外，還應確定由誰負責確保採取糾正措施，以及完成糾正措施的日期。

必須由管理層對該體系及其性能進行審查，其中應採用一種輸入和輸出的方式，將考慮以下幾個方面：

- 客戶回饋
- 績效，不合規



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- Audits
- Measures taken
- Changes and the need for improvement
- Trend in objectives
- Remedial measures to be taken to correct trends

The results of the reviews, including decisions and measures, shall be documented.

#### 4.5.4 Resource management

Management shall decide which resources (human, financial and material resources) are needed for the system, and which resources are generally required to ensure unrestricted operation and improve customer satisfaction through high quality goods and services.

Management should ensure that employees are competent, and should involve employees whose work affects whether services/products meet requirements. Management should decide which skills are required; these skills should be promoted and obtained. It should be ensured that staff are trained appropriately (in accordance with the objectives). In addition, the effectiveness of the training/measures taken has to be evaluated. Management should identify the infrastructure and work environment needed to meet the requirements of the system and the facility. These conditions should be established and maintained.

#### 4.5.5 Requirements for products and services

The management team should plan and develop the processes required to ensure maximum-quality products/services. The management team should know and understand the requirements for the individual products/services to ensure that customer processes are effective and these requirements can be met. Effective ways to communicate with internal and external stakeholders and customers should be in place.

Any assessment relating to the safety of products for end consumers should be reviewed and, where possible, proven through a certification (e.g. STANDARD 100 or OEKO-TEX® LEATHER STANDARD, GOTS, PSA type-examination certificate, EN 14682:2008, EN 71-1, etc.).

The correct material composition should be specified on all delivered products or in the accompanying documents.

The potential harmful consequences of desired and undesired substances in the products (human ecology) should be known and reduced through the selection of suitable processes and chemicals.

- 審核
- 採取的措施
- 變化和改進需要
- 目標的趨勢
- 糾正趨勢需採取的補救措施

須記錄包括決定和措施在內的審查結果。

#### 資源管理

管理層須確定系統所需的資源 ( 人力資源、財務資源和物質資源 )，並確定確保不受限制的營運並通過高質量產品和服務提高客戶滿意度通常所需的資源。

管理層應確保員工能勝任工作，並且應僱用能保證服務/產品符合要求的員工。管理層應確定需要哪些技能；並且應促進和獲得這些技能。應確保讓員工接受恰當的培訓 ( 根據目標 )。此外，必須對所做的培訓/所採取的措施進行有效性評估。管理層應確定滿足體系和工廠要求所需的基礎設施和工作環境。應建立並維持這些條件。

#### 產品或服務要求

管理團隊應策劃並制定高質量產品/服務所需的流程。管理團隊應清楚和了解各產品/服務的要求，確保客戶流程有效並且這些要求得到滿足。應採用有效的方式與內外部利益相關方及客戶進行溝通。

須回顧針對最終消費者進行的產品安全性評估，並且如果可行，可通過證書 ( 例如，STANDARD 100 或 OEKO-TEX® LEATHER STANDARD、GOTS、PSA 型式檢驗證書、EN 14682:2008、EN 71-1 等 ) 加以證明。

應在所有交付產品或隨附文件上註明正確的材料成分。

應了解產品中需要和不需要的物質的潛在有害後果 ( 人類生態學 ) 並通過選擇合適的工藝和化學品來減輕這些後果。



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#### 4.5.5.1 Design and development

Effective processes for designing and developing products/services should be in place. They should consider the following topics:

- Planning of design/development
- The definition of the inputs needed for design/creation/development
- The creation of a design/plan in a form that allows verification of the output
- The review of the design/plan at suitable stages
- Ensuring that the result meets the agreed and specified requirements (verification)
- Validation of the design (where practicable)
- Management of any changes that occur during the design phase

#### 4.5.5.2 Purchasing (suppliers and contractors)

Any purchasing, outsourcing or subcontracting of goods, materials or services related to services or products shall be controlled. It shall be ensured that all purchased goods/services meet all specified requirements. Suppliers and supply chains shall be assessed and monitored. A description of planned purchases shall be compiled to ensure that all requirements in this regard are met. Suppliers, sub-suppliers, contractors and sub-contractors shall be involved in the process of improving social working conditions, safety and environmental matters and the measures in this regard.

Therefore, suppliers, sub-suppliers, contractors and sub-contractors shall:

- Establish and maintain appropriate procedures for selecting sub-contractors based on their ability to meet the STeP requirements
- Maintain appropriate documentation for meeting the STeP requirements
- Provide training options for outworkers in relation to personal protection, workers' rights and access to employee information in the facility
- Provide evidence that all requirements are met. There are different stages for providing this proof. As a minimum requirement, the supplier, sub-supplier and/or contractor, sub-contractor shall sign the OEKO-TEX® STeP Code of Conduct for supplier, which can be found in Annex I:
- Stage 1: a contractual agreement between the facility and the supplier, sub-supplier, contractor or sub-contractor to conform to the requirements in the OEKO-TEX® STeP Code of Conduct for suppliers. If these requirements are not met, the facility shall have a contractual right and duty to immediately terminate business relation-

#### 設計和開發

必須建立設計和開發產品/服務的有效流程。它們應考慮到以下要點：

- 規劃設計/開發
- 定義設計/創建/開發所需的輸入
- 以允許驗證輸出的形式創建設計/計劃
- 在合適的階段對設計/計劃進行審查
- 確保結果符合商定和規定的要求（驗證）
- 驗證設計（若可行）
- 對設計階段發生的任何變更進行管理

#### 採購(供應商和承包商)

貨物、材料、服務或產品的採購、外包或分包必須受控。採購的所有貨物/服務都必須滿足所有指定的要求。應評估和監督供應商和供應鏈。應編製計劃採購說明，確保滿足所有相關要求。供應商、次級供應商、承包商和分包商應參與改進社會工作條件、安全性、環境事項以及相關措施。

因此，供應商、次級供應商、承包商和分包商應：

- 建立並維持適當的程序以根據分包商滿足 STeP 要求的能力選擇分包商
- 維持適當的文件記錄以滿足 STeP 要求
- 從人身保護、工人權利和在工廠內訪問員工資訊方面為外包工人提供培訓選項
- 提供滿足所有要求的證據。提供這些證據分不同的級別。供應商、次級供應商和/或承包商、分包商應簽署 OEKO-TEX® STeP 供應商行為準則（詳見附錄 1），這是最低要求。
- 級別 1：工廠和供應商、次級供應商、承包商或分包商之間簽署合同協定，以遵守供應商 OEKO-TEX® STeP 行為準則中的要求。如果未滿足這些要求，根據合同規定，工廠有權利和義務立即終止與供應商、次級供應商和/或承包商、分承包商的業務關係。



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ships with the supplier, sub-supplier and/or contractor, sub-contractor.

- Stage 2: a written commitment to work in accordance with STeP minimum requirements, which is verified by the customer.
- Stage 3: carrying out and passing a self-assessment in accordance with OEKO-TEX® STeP.
- Stage 4: carrying out and successfully passing the OEKO-TEX® STeP certification process.

Suppliers should be involved in the process of improving social and environmental ethics.

The following STeP principles apply to suppliers, sub-suppliers, contractors and sub-contractors: All the companies involved in the supply chain are responsible for ensuring the compliance of all the preceding steps in the supply chain. Everyone involved in the supply chain should promote this philosophy and use their purchasing power accordingly. Sustainability policies (including social, safety and environmental policies), procedures and expectations should be clearly documented and communicated to direct business partners. The consistent use of myOEKO-TEX® is an effective tool for reviewing the supply chain in relation to the issue of “compliance”.

#### 4.5.5.3 Operations management

Effective means of monitoring the results of the provision of products/services should be in place.

Services/products shall be identifiable at all times and tracked (traceability) throughout all stages of production.

Any property supplied by customers (including intellectual property) and confidential information should be treated with the required care. Products/components should be treated with the required care during storage, delivery, etc., to ensure that they remain in good condition. It shall be ensured that production processes and manufactured and/or sold products conform to the OEKO-TEX® STeP standard at all times.

#### 4.5.5.4 Measurement and monitoring equipment

When compiling measurements, it shall be ensured that the results are valid and conform to the requirements of the OEKO-TEX® STeP standard.

The equipment and processes required to do so should be identified. Suitable equipment and tools should be chosen. It should be ensured that the results are and remain accurate.

• 級別 2：符合 STeP 最低要求且經客戶驗證的書面工作承諾。

• 級別 3：根據 OEKO-TEX® STeP 執行並通過自我評估。

• 級別 4：執行並成功通過 OEKO-TEX® STeP 認證過程。

供應商應參與提高社會和環境道德的過程。

以下 STeP 原則適用於供應商、分供應商、承包商和分包商：參與供應鏈的所有公司都有責任確保供應鏈中所有前述步驟的合規性。供應鏈中的每位成員都應推廣這一理念，並相應地使用他們的購買力。應明確記錄可持續性政策（包括社會、安全和環境政策）、程序和期望，並將其傳達給直接業務合作夥伴。使用 myOEKO-TEX® 是審查供應鏈“合規性”相關問題的有效工具。

#### 營運管理

應建立監視產品/服務供應結果的有效措施。

服務/產品應始終可以辨認，並且應在生產的所有階段進行跟蹤（可追溯性）。

對客戶提供的任何財產（包括智慧財產權）和機密資訊，應按要求悉心保管。在儲存、交貨等階段，應按要求悉心保管產品/組件，確保它們保持良好狀態。應確保生產過程和製造和/或銷售的產品始終符合 OEKO-TEX® STeP 標準。

#### 測量和監視設備

編製測量方案時，應確保結果有效且符合 OEKO-TEX® STeP 標準的要求。

應確定所需的設備和工藝。應選擇合適的設備或工具。應確保結果準確且保持準確。





### 4.5.6 Measurement, analysis and improvement

Suitable processes should be established to ensure that services/products meet all the relevant requirements (for all stakeholders) and also incorporate improvements. Processes and services/products (if necessary) should be monitored and measured to verify that the intended results have been achieved. This is to be done through

- Monitoring of customer satisfaction
- Planning and implementation of a suitable programme for internal system audits, including a process
- Ensuring suitable methods for monitoring/measuring the processes (internal and external audits; processes have to be revalidated if they are complex)
- Monitoring and measuring of products/services at suitable stages; approving the end product only when all the requirements are met
- Maintenance of equipment and machines

### 4.5.7 Non-Compliance and corrective action

Non-compliances shall be dealt with in a suitable manner. This includes a written procedure. Information should be gathered and analysed. A decision should then be made regarding which information is required to determine how well the system is working and how it can be improved. This data should be collected, analysed and used to compile an effective analysis of the causes and the methods for correctional measures.

### 4.5.8 Continuous improvements

The quality of the system and the products and services should be continually improved. A systematic approach and procedure for correcting non-conformity and preventing such a recurrence is required. A systematic approach and procedure for preventing potential non-conformity or defects is required.

### 4.5.9 General information

#### 4.5.9.1 Legal existence

A collection of all the documents that form the basis for the legal existence and lawful operation of the production facility shall be available and kept ready for verification at any time.

#### 4.5.9.2 Legislation

The facility shall be aware of the legal, regulatory and other requirements that are relevant to the overall facility and these requirements shall be ac-

### 測量，分析和改進

應制定合適的流程，以確保服務/產品滿足所有相關要求（對於所有利益相關方）並且還包括改進措施。應監視並測量流程和服務/產品（如有必要），以驗證是否取得了預期結果。這通過以下方式完成：

- 監視客戶滿意度
- 規劃和實施系統內部審核的合適方案，包括流程
- 確保監測/測量該流程的過程（如果內部和外部審核及流程較複雜，須重新驗證）合理
- 在合適的階段監視並測量產品/服務；僅在滿足所有要求時批准最終產品
- 設備和機器維護

### 不合規和糾正措施

應通過適當方式處理不合規現象，其中包括書面程序。應收集和分析信息，然後應決定確定體系運行狀況和改進方法所需的信息。應收集、分析並利用這些數據來編制有效的起因分析和糾正措施的方法。

### 持續改進

應持續改進體系、產品和服務質量。需要採用系統的方法和程序來糾正不合規現象並防止其再次出現。需要採用系統的方法和程序來預防潛在的不合規現象或缺陷。

### 一般信息

#### 合法實體

應提供形成生產工廠合法存在和合法經營基礎的所有文件集，並隨時準備接受驗證。

#### 法規

工廠應清楚與整個工廠相關的法律、法規及其他要求，並且員工應當能夠取得並理解這些要求。這適用於以下規定：



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cessible to and understood by the staff. This applies to regulations that:

- apply to the work in facilities, transport facilities, laboratories, offices, etc. (that is, operational activities specific to the products and services)
- apply to the designated use of products, goods, services and performance
- apply to the relevant industry sector
- are based on recognised worldwide environmental principles

A list of the relevant national, regional and international laws and ordinances that affect the organisation should be available and structured in a form that allows it to be provided as content for audits and reviews at any time. In addition, other organisational obligations to non-governmental organisations or non-profit organisations that, for instance, go beyond or supplement legal provisions, should be noted and available.

### 4.5.9.3 Sourcing of raw materials

When sourcing raw materials, such as fibres or hides, companies should ensure that they source only from suppliers that can prove that they work responsibly and sustainably. Raw material suppliers supply basic substances in natural, processed or semi-processed states. These substances are used as primary substances for manufacturing processes and are subsequently transformed into finished or semi-finished goods.

Testing and monitoring of semi-finished and finished materials should be carried out regularly, e.g. testing of pre-treated hides for Chromium IV during leather production.

#### Leather Origin

The origin of the processing hide and skins is expected to be known and the source shall be in accordance to CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) and other legal requirements. It is recommended that hide and skins from animal farming/facilities are used, which are tested for a species-appropriate livestock farming and animal welfare. The way farmers perform livestock farming should be considered.

#### Deforestation

The facility should prove evidence that a risk analysis in regard of deforestation is implemented and performed continuously to make sure the risk of leather articles coming from areas of both legal and illegal deforestation is excluded. Especially for hide and skins with the origin of Brazil and Paraguay a strict traceability system is highly recommended to control and monitor the possible involvement of farms and hide or skin suppliers in any

- 適用於工廠、運輸設施、實驗室、辦公室等的工作（即特定於產品和服務的經營活動）的規定
- 適用於按指定使用產品、商品、服務和性能的規定
- 適用於相關工業部門的規定
- 基於全球公認的環境原則的規定

應按一定的結構框架提供影響組織的相關國家、地區和國際法律法規清單，以供隨時接受審核和審查之用。此外，還應注意並向非政府組織或非營利組織提供其他超出或補充法律規定的組織義務。

#### 原材料採購

在採購纖維或獸皮等原料時，公司應確保僅從能夠證明其以負責任和可持續的方式工作的供應商處採購。原料供應商提供處於自然狀態、改性狀態或半加工狀態的基本物質。這些物質用作生產工藝的主要物質，隨後被轉化為成品或半成品。

應定期測試和監測半成品和成品材料，例如在皮革生產過程中測試經預處理的獸皮中的六價鉻。

#### 皮革來源

加工生皮的來源必須已知，且應符合 CITES（《瀕危野生動植物種國際貿易公約》）和其他法律要求。我們建議使用來自動物養殖廠/工廠的生皮和毛皮，這些養殖場/工廠已經經過有機牲畜養殖、動物福利等檢測。應考慮農民的牲畜養殖方式。

#### Deforestation

工廠應提供證據，證明持續實施和執行了森林砍伐風險分析，以確保排除皮革製品來自合法和非法森林砍伐地區的風險。尤其對於產自巴西和巴拉圭的皮革，強烈建議實施嚴格的可追溯性系統，以控制和監控農場和社皮革供應商可能涉及在亞馬遜生物群落中任何濫伐森林的情況。合理證據可以是：



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way of deforestation in the Amazon Biome. Possible evidence could be:

- A copy of compliance report from an slaughterhouse/meatpacker process monitoring system
- A copy of a 3rd party monitoring system (e.g. country organisations) report
- Date of the land border registration by a GPS based map system
- Monitoring geographic information based on a Geospatial Information System (GIS)

In addition, knowledge about the time when last deforestation took place where farmers keep their animals should be known.

### Traceability

For unprocessed or incoming leather material the following traceability is recommended:

- Basic: Traceable back to slaughterhouse group, region or country (e.g. geo-referenced location) by physical marking and/or reliable data system.
- Advanced: Traceable back to single slaughterhouse and country by physical marking (e.g. laser engraving a number-code) and/or reliable data system.
- Best practice: Traceable back to single slaughterhouse and farm by physical marking (e.g. laser engraving a number-code) and/or reliable data system.

### Down and feathers

When sourcing downs and feathers for the production of jackets, pillows, bedding, etc., it shall be considered to source these items only from suppliers who can prove that the poultry has never been live plucked or force-fed during farming. It is beneficial to conduct sourcing using proof provided by, for example, the RDS (Responsible Down Standard) or another related standard. All other applicable legal requirements must be complied with.

### Wool

Source wool preferably from suppliers who can prove that the wool or other animal hairs come from sheep, goats etc. treated with respect to the following Five Freedoms:

1. Freedom from hunger or thirst by ready access to fresh water and a diet to maintain full health and vigour.
2. Freedom from discomfort by providing an appropriate environment including shelter and a comfortable resting area.
3. Freedom from pain (e.g. mulesing), injury or disease by prevention or rapid diagnosis and treatment.

- 屠宰場/肉類加工商過程監控系統合規報告的副本
- 第三方監控系統 (例如國家組織) 報告的副本
- GPS 地圖系統陸地邊界登記日期
- 基於地理空間資訊系統 (GIS) 監測地理資訊

此外,應瞭解農民飼養牲畜的地點上次發生濫伐森林的時間。

### 可追溯性

對於未加工或來料皮革材料,建議採用以下可追溯方法:

- 基本標準:通過物理標記和/或可靠的數據系統追溯至屠宰場集團、地區或國家(例如地理參照位置)。
- 高標準:通過物理標記(例如鐳射雕刻數位代碼)和/或可靠的數據系統追溯至單個屠宰場和國家/地區。
- 最佳做法:通過物理標記(例如鐳射雕刻數位代碼)和/或可靠的數據系統追溯至單個屠宰場和農場。

### 羽絨和羽毛

在為夾克,枕頭,床上用品等的生產採購羽絨和羽毛時,應考慮僅從能夠證明這些家禽在養殖過程中從未被活摘羽毛或強制餵食的供應商處採購這些物品。使用由例如 RDS(負責任羽絨標準)或其他相關標準提供的證據,有利於進行採購。必須遵守所有其他適用的法律要求。

### 羊毛

最好從能夠證明羊毛或其他動物毛髮來自受到以下“五種自由”對待的綿羊、山羊等的供應商那裡採購羊毛:

1. 隨時獲取淡水和飲食來保持全面健康和活力,免於飢餓或口渴。
2. 提供適當的環境(包括避難所和舒適的休息場所),免於不適。
3. 提供預防或快速診斷和治療,免於疼痛、傷害或疾病。



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4. Freedom to express (most) normal behaviour by providing sufficient space, proper facilities and company of the animal's own kind.
5. Freedom from fear and distress by ensuring conditions and treatment which avoid mental suffering.

Furthermore, also ensure best practices in the management and protection of the land. It is of advantage to adopt sourcing through proof of certification provided by, for example, RWS (Responsible Wool Standard) or any other related standard, in addition to comply with requirements.

### Wood/Cellulose

It is expected that the origin of the wood/cellulose used in the manufacture of dissolving pulp is known. This is particularly relevant for the production of viscose/rayon, Modal or Lyocell. In this sense it should be the common goal not to use wood from ancient and endangered forests (e.g. rainforests). Sourcing with proof of certifications like FSC® (Forest Stewardship Council) or PEFC™ (Programme for the Endorsement of Forest Certification Schemes) and support CanopyStyle, CV or any other related initiative/campaign is preferred. A wood sourcing policy which considers at least 25% of pulp fibres or pulp that comes from such sources, including the amount of recycled materials (e.g. cotton scraps), shall be defined. The harvesting should be managed in an environmental friendly way, including an Environmental Impact Assessment of the harvesting activities, as well as long term and direct relationships with wood and pulp suppliers.

### 4.5.10 Risk Management

Risks are events that cause problems when triggered. Risk management means identifying, assessing and prioritising different types of risks (as defined in ISO 31000 as the effect of uncertainty on objectives, whether positive or negative) and subsequently making coordinated and economical use of resources to minimise, monitor and control the chance and/or impact of fatal incidents or to maximise the realisation of opportunities. There should be a special focus on risk evaluation if it affects human safety.

OEKO-TEX® recommends the following risk assessment steps:

- Identifying and classifying risks and (potential) dangers
- Assessing weak points in critical, significant situations in relation to specific threats
- Determining the risk (that is, the expected likelihood and consequences of specific types of attacks in specific situations)

4. 提供足夠的空間、適當的設施並與同類動物為伍，自由表現（大多數）正常行為。
5. 確保提供避免精神痛苦的條件和治療，免於恐懼和痛苦。

此外，還要確保採取管理和保護土地的最佳實踐。除符合要求以外，通過例如 RWS（責任羊毛標準）或任何其他相關標準提供的認證證明來實施採購是有利的。

### 木材/纖維素

預計用於製造溶解紙漿的木材/纖維素的來源是已知的。這對於粘膠/人造絲、莫代爾或萊賽爾纖維的生產尤其重要。在這個意義上說，不應使用來自古老和瀕臨滅絕的森林（例如熱帶雨林）的木材。應考慮採購帶有 FSC®（森林管理委員會）或 PEFC™（森林認證體系認可計劃）等認證證明並支援 CanopyStyle、CV 或任何其他相關倡議/活動的木材。應制定木材採購政策，考慮用棉花廢料等回收材料作為至少 25% 的紙漿纖維或紙漿的來源。採伐應以環保方式進行管理，包括對採伐活動進行環境影響評估，並與木材和紙漿供應商建立長期直接的合作關係。

### 風險管理

風險是在觸發時導致問題的事件。風險管理是指識別、評估和按優先順序處理不同類型的風險（ISO 31000 中將其定義為對目標的不確定性影響，無論這種影響是正面影響還是負面影響），並隨後協調且經濟地使用資源，以最大程度減小、監控和控制致命事故發生的可能性和/或影響或者最大程度提高實現的機會。如果風險會影響人身安全，則應特別關注風險評估。

OEKO-TEX®建議採用以下風險評估步驟：

- 識別風險和（潛在）危險並對其進行分類
- 評估重要、重大情況中與特定威脅相關的薄弱點
- 確定風險（即在特定情況下發生特定類型的侵害的預期可能性和後果）



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- Identifying and implementing appropriate corrective measures

The subject matter of a risk assessment may be:

- Product-related and production-related risks (e.g. the loss of crucial stakeholders such as suppliers, customers or other contract partners)
- Financial risks (e.g. the loss of business-related partners)
- IT-related risks (e.g. viruses, hackers and other legal violations)
- etc.

The risk assessment should take into account both potential dangers and actual effects. A risk assessment shall be carried out in regular intervals. When doing so, national and regional variances (e.g. social standards, environmental requirements, and infrastructure) should be taken into account at all times included in the evaluation. In addition, the economic situation, organisational stability and production planning of the facility should also be assessed. The risk assessment and subsequent prioritisation can be used as a basis for implementing appropriate preventative measures and improving the overall performance of the operating facility.

#### 4.5.11 Corporate governance

Corporate governance is the system for steering and controlling a company. It forms the framework of rules and practices used by a management board to ensure accountability, fairness and transparency in the relationship between a facility and all its stakeholders. OEKO-TEX® recommends complying with the national rules and the OECD Principles of Corporate Governance.

#### 4.5.12 Acceptance of Third-Party certificates

Recognised third-party certificates that are of significance for quality management systems are listed in Annex 8.

If a facility is certified by a third-party certification system, documents and records of the certification process, including the certificate and validity period, should be provided to OEKO-TEX®.

#### 4.5.13 Ethics and compliance

##### 4.5.13.1 Business, ethics, compliance and integrity

The company should issue a written set of guidelines to its workers and to management. All actions taken by them should then be in accordance with the primary values and ethical standards of the company. The following principles should be included:

- 識別並實施適當的糾正措施

風險評估的主題可為：

- 與產品相關的風險以及與生產相關的風險（例如，供應商、客戶或其他合約夥伴等重要利益相關方的損失）
- 財務風險（例如，業務相關合作夥伴的損失）
- IT 相關風險（例如，病毒、黑客及其他違法行為）
- 等等

風險評估應同時考慮潛在危險和實際影響。應定期開展風險評估。在風險評估時，應始終在評估中考慮到國家和地區差異（例如，社會標準、環境要求和基礎設施）。此外，還應對工廠的經濟狀況、組織穩定性和生產計劃進行評估。風險評估及後續的優先次序可用作實施適當預防措施並改善工廠運營整體績效的基礎。

#### 企業管治

公司治理是指導和控制公司的體系。它構成了管理委員會使用的規則和實踐框架，以確保設施與其所有利益相關者之間關係的問責制，公平性和透明度。OEKO-TEX®建議遵守國家法規和經合組織公司治理原則。

#### 認可的第三方認證

附錄 8 中列出了對質量管理體系具有重要意義的受認可的第三方證書。

如果工廠通過第三方認證體系獲得認證，必須向 OEKO-TEX® 提供包括證書和有效期限在內的認證過程文件和記錄。

#### 道德規範及合規性

##### 商業，道德，承諾與廉正

公司應向其員工和管理層發放一套書面指南。他們隨後採取的所有行動都應符合公司的主要價值觀和道德標準。應包括以下原則：



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- Without exception, transparency and compliance with all applicable laws, rules and regulations
- No engagement in any activity that might create a conflict between social and environmental performance and economic profits. A demonstration of such a balance should be included in all business activities
- No taking advantage of a position or power to seek personal gain through the inappropriate use of non-public information or through abuse of position (this includes refraining from engaging in insider trading)
- Fair (equal) conduct in all business transactions and interactions
- Following all restrictions on the use and disclosure of business information
- Prompt reporting of any illegal or unethical conduct to management and, if necessary, to legal authorities (that is, ethical, legal or safety-related issues, no adverse repercussions for whistleblowers)
- No acceptance of bribery and corruption
- No conducting of risky actions (in relation to the environment and health and safety)
- Documentation of all activities that are relevant to the business
- Protection of all company, customer and supplier assets and the use of them solely for appropriate company-approved activities (e.g. protection of confidential business information)
- Acknowledgement of the role and value of natural capital and society within the business
- 無一例外，透明公開並遵守所有適用的法律、法規
- 不參與任何可能在社會和環境績效與經濟利潤之間造成衝突的活動。所有商業活動都應包括此類平衡的證明
- 不利用職位或權力通過不當使用非公開信息或濫用職權謀取個人利益（包括禁止從事內幕交易）
- 在所有商業交易和互動中公平（平等）行事
- 下列所有業務信息的使用和披露限制
- 及時向管理層報告任何非法或不道德行為，並在必要時向執法機構報告（即道德、法律或安全相關問題，對舉報人沒有不利影響）
- 不允許貪污行賄
- 不開展危險活動（與環境、健康和 safety 相關）
- 具備一切商業活動相關的文件
- 保護所有公司、客戶和供應商資產，並且僅將其用於公司批准的適當活動（例如，保護商業機密信息）
- 確認自然資本和社會在商業中扮演的角色和體現的價值

The code of conduct can be found in Annex I.

行為準則見附錄 I

#### 4.5.13.2 Ethical behaviour of OEKO-TEX®

#### OEKO-TEX® 道德行為

If any non-compliance with OEKO-TEX® STeP or misconduct on the part of the auditor/the supporting Institute is discovered (at any time), either by employees or management, an independent legal counsel (complaint@oeko-tex.com) can be contacted and forwarded the findings. The legal counsel will forward the anonymised complaint to the OEKO-TEX® STeP technical executive committee (which represents OEKO-TEX®).

如果（在任何時候）發現任何不符合 OEKO-TEX® STeP 的情況或有關審核人員/支援機構的不當行為，無論由員工還是由管理層引起，都可以聯繫獨立的法律顧問 (complaint@oeko-tex.com) 並轉發相關發現。法律顧問會將匿名投訴轉發給 OEKO-TEX® STeP 技術執行委員會（代表 OEKO-TEX®）。

#### 4.6 Health and Safety

#### 健康和 safety

This module covers the occupational health and safety of production facilities and industrial laundries. It assesses work place conditions such as noise, dust, chemical risks, lighting, heat stress, care for employee health and safety through the provision of protective clothing (e.g. PPE) and the prevention of injuries through safe machinery/

本模組涵蓋了生產工廠的職業健康和 safety。其對工作場所條件例如噪音、灰塵、化學品風險、照明、熱應激進行評估，並對利用防護服（例如 PPE）照顧員工健康和 safety、利用安全機械/設備防止員工受傷的舉措進行評估。該模組還涵蓋工廠在預防火災、建築物 safety、緊急程序（例如火災）方面的 safety 性以及發



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equipment. The module also covers facility safety in relation to the prevention of fire, building safety, emergency procedures (e.g. fire) and the safety of workers in the event of such incidents. Furthermore, it assesses the safety of production and its installations.

### 4.6.1 Purpose

The health and safety performance of the facility shall be considered at all times and particular attention should be paid to the following issues and objectives:

- The provision of a safe and healthy working environment
- The protection of workers from noise emission, dust pollution and chemical risks
- The provision of adequate lighting for workplaces
- The protection of workers from heat stress
- The provision of PPE (personal protective equipment) where applicable to sustain health and safety
- The establishment of a system to identify risks regarding health and safety
- The introduction of preventative measures to avoid accidents
- The performance of training sessions to enhance health and safety
- The evaluation of risks caused by workplaces next to each other
- The prevention of fires, explosions, etc.
- The provision of an emergency plan for all possible types of incidents (fire, explosion, chemical hazards, natural hazards such as floods, earthquakes, building collapse, etc.)
- The definition of rules and procedures in order to introduce an effective management system for health and safety
- The regular execution of internal audits
- “Good housekeeping” and ensuring clean, orderly workplaces

### 4.6.2 Workplace safety

#### 4.6.2.1 Workplace conditions

The facility shall implement controls to prevent hazards and minimise health and safety risks. The capacity planning for the workplaces should take into account maximum personnel capacities to avoid crushes due to panic in the event of incidents. Production and laboratory equipment (machines/apparatus) shall be equipped with an emergency stop button in case of an incident. Vulnerable individuals including - but not restricted to - juvenile

生此類事故時工人的安全性。此外，它還對生產及其設施的安全性進行評估。

### 目的

必須隨時考慮工廠的健康與安全績效，並應特別注意以下問題和目標：

- 提供安全且健康的工作環境
- 保護工人免受噪音排放、粉塵污染和化學品風險的影響
- 為工作場所提供充足的照明
- 保護工人免受熱應力的影響
- 在適用的情況下提供 PPE (個人防護裝備) 以保護健康與安全
- 建立識別健康與安全風險的體系
- 採取預防措施以免發生事故
- 舉辦培訓課程以促進健康與安全
- 相鄰工作場所引起的風險評估
- 預防火災、爆炸等
- 提供所有可能類型事件 (火災、爆炸、化學品危害、自然災害如洪水、地震、建築物倒塌等) 的應急計劃
- 定義規則和程序，以便引進有效的健康與安全管理體系
- 定期執行內部審核
- “良好的內務運作”並確保乾淨、整齊的工作場所

### 工作場所安全

#### 工作場所條件

工廠應實施控制措施，以預防危害，最大程度降低健康與安全風險。規劃工作場所的容量時應考慮到最大人員容量，以防在出現事故的情況下引起恐慌性擠擁。生產和實驗室設備 (機器/設備) 應配備緊急停止按鈕以防萬一。需要特別保護弱勢群體，包括但不限於青少年工作者、年輕媽媽、孕婦和殘障人士。對於暴露於特定風險的人員，應定期進行健康檢查。



workers, young mothers, pregnant women and people with disabilities receive special protection. For personnel who are exposed to specific risks, regular health checks should be carried out.

#### 4.6.2.2 Noise

Workers shall be provided with effective hearing protection and instructed to use them in situations with a noise emission level above 85 dB(A). Areas with noise emissions at this level shall be clearly and permanently signposted. Measurements in these areas are essential for the reduction of noise emissions, and a noise map should be prepared for the facility that records all the relevant buildings, storage areas and the job descriptions of affected workers. The noise map should preferably contain individual sources of noise emission. Measures planned and introduced to lower the noise emissions of machinery, buildings, etc., should be documented.

#### 4.6.2.3 Dust / Particulate Matter (PM)

In the event of high levels of dust emission, effective dust protection measures shall be provided and the personnel shall be instructed in their use. Areas with dust emissions (e.g. fibres in spinning mills, dyestuff dust in dyeing plants, etc.) shall be clearly and permanently signposted. To reduce the level of dust emissions, a dust map of the facility shall be prepared that records all the relevant buildings, storage areas and job descriptions of affected workers along with dusty areas, sources of dust and types of dust. Measures planned and introduced to lower the dust emissions of machinery, buildings, etc., shall be documented. The inhalation of cotton dust may lead to respiratory illnesses (e.g. chronic bronchitis, asthma, etc.) and should therefore be limited through the measures stated above in compliance with the PPE requirements and legal requirements. Annex 6 includes a list on this subject with limit value recommendations for dust exposure at the workplace. Organic dusts (such as cotton dust) are flammable and represent a potential risk of explosion. Potential sources of ignition should be avoided during the accumulation or formation of clouds of organic substances. Local and national legal requirements regarding dust emissions at the workplace shall be complied with at all times.

#### 4.6.2.4 The “Sandblasting Process”

Sandblasting can cause a high level of dust pollution in the work area and cause health problems, and is either conditional or subject to a permit. An air analysis for the parameters of silicon dioxide and crystalline quartz (inhalable fraction) shall be conducted by an independent authorised laboratory/test centre to determine which applies. Wherever possible, an alternative procedure is to be consid-

#### 噪音

應向工人提供有效的聽力保護裝置，並指導他們在噪音排放水平高於 85 dB(A) 的情況下使用。必須清晰且永久性地標示具有該級別噪音排放的區域。在這些區域進行測量對於減小噪音排放至關重要，並且應繪製工廠的噪音分佈圖，記錄所有相關的建築物、儲存區和受影響工人的職位描述。噪音分佈圖最好應包含各噪音排放源。應記錄規劃和引進的用於減小機械、建築物等噪音排放的措施。

#### 粉塵/微粒物質

在粉塵污染較高的情況下，必須提供有效的防塵措施並對工作人員進行使用指導。必須清晰且永久性地標示有粉塵排放的區域（例如，紡織作坊中的纖維、染色車間的染料粉塵等）。為降低粉塵排放濃度，須繪製工廠的粉塵分佈圖，記錄所有相關的建築物、儲存區和受影響工人的職位描述以及粉塵區、粉塵來源和粉塵類型。必須記錄規劃和引進的用於減小機械、建築物等粉塵排放的措施。吸入棉塵可能導致呼吸道疾病（例如，慢性支氣管炎、哮喘等），因此應通過上述符合 PPE 要求和法規要求的措施加以控制。附錄 6 包括有關該主題的清單，其中列出了工作場所粉塵暴露的建議限量值。有機粉塵（如棉塵）易燃，具有發生爆炸的潛在危險。在積累或形成有機物質雲的過程中，應避免潛在的火源。必須時刻遵守當地和國家有關工作場所粉塵排放的法律要求。

#### “噴砂工藝”

噴砂可能在工作區域造成高濃度粉塵污染並導致健康問題，因此是附帶條件的工藝或需要獲得許可。應由獨立的授權實驗室/檢測中心對空氣中的二氧化矽和結晶石英（可吸入部分）參數進行分析，以確定適用的方案。應在可能的情況下考慮採用替代程序來改善工作場所的空氣質量。甚至應考慮將流程自動化。附錄 4 中列出了工人可吸入的結晶二氧化矽的受限濃度。





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ered to improve the air at the workplace. Even the automation of processes shall be considered. The restricted level for respirable crystalline silica for workers is listed in Annex 4.

#### 4.6.2.5 Working with chemicals

In the case of chemical risks and chemicals that can cause allergic reactions (e.g. dyestuffs containing chromium), technical control equipment such as PPE (e.g. gloves, goggles, aprons, masks, etc.) shall be provided. Tanks and containers that contain hazardous chemicals (e.g. acids or caustic soda) shall be properly marked with warning symbols (e.g. “Wear Goggles, Gloves”, etc.). In addition, tanks and containers that contain chemicals should remain closed at all times. The use of sealed containers and automatic transportation of chemicals (liquids and salts) are of advantage.

Chemicals shall be separated based on their hazard level to prevent chemical reactions to the greatest extent possible.

All persons working with chemicals shall be trained related to the chemical management system and relevant topics (such as legal aspects, use of chemicals, storage, environmental and safe handling etc.).

In case of using volatile organic compounds (VOC, def. see Annex 12.1) in the production processes, measures must be taken to limit the exposure of workers to VOC in the workplaces. This can be done by using personnel protective equipment (individual equipment) e.g. masks or collective protective equipment e.g. ventilation or a combination of individual and collective equipment. MAC (Maximum allowable Concentration) for workplaces must be respected (see 9.4. Health and Safety). Workplace exposure limits mentioned in the SDS of the used VOC and legal requirements e.g. REACH restrictions, permits shall be respected. Workplace exposure of VOC can be limited by reducing the diffuse VOC emissions in the storage and workplaces. Diffuse or fugitive VOC emissions are expressed in percentage (%) of the solvent input, based on the solvent mass balance. Diffuse or fugitive VOC emissions lower than 5% can be considered as good practice.<sup>1</sup>

#### 4.6.2.6 Lighting of workplaces

If there is a risk of insufficient lighting, workplaces shall be illuminated accordingly and any necessary measures shall be taken. Planning and monitoring of the correct lighting at all workplaces should be

#### 使用化學品

就化學品風險和可引起過敏反應的化學品（例如含鉻染料）而言，須提供 PPE 等技術控制裝備（例如，手套、護目鏡、圍裙、口罩等）。必須用警告符號正確標示含有危險化學品（例如，酸或苛性鈉）的罐和容器（例如，“佩戴護目鏡、手套”等）。此外，含有化學品的罐和容器應始終保持關閉狀態。使用密封容器和自動運輸化學品（液體和鹽類）是有利的。

應根據化學品的危險程度將其隔開，盡可能防止發生化學反應。

所有需要使用化學品的工作人員都應接受化學品管理體系和相關主題（例如法律法規、化學品使用、儲存、環境和安全處理）的培訓。

如果在生產過程中使用揮發性有機化合物（VOC，定義見附錄 12.1），則必須採取措施限制工人在工作場所接觸揮發性有機化合物。具體做法是使用個人防護裝備（如口罩）或集體防護設備（如通風設備），或將個人防護裝備和集體防護設備結合使用。必須遵守工作場所的 MAC（最大允許濃度）（參見 9.4. 健康與安全）。必須遵守所用 VOC 的安全資料單（SDS）中提到的工作場所接觸限值和法律要求，如 REACH 限制和許可證。可透過減少倉庫和工作場所的揮發性有機化合物擴散排放來限制工作場所的揮發性有機化合物接觸量。根據溶劑的質量平衡，擴散性或逃脫性 VOC 排放量以溶劑輸入量的百分比（%）表示。低於 5% 的擴散或逸散性 VOC 排放可視為良好做法。<sup>1</sup>

#### 工作場所的照明

如果有照明不足的風險，應相應地照亮工作場所，並採取必要的措施。應持續規劃和監測所有工作場所的正確照明。工作場所的勒克斯（lx）參考值請見附件 7.2。

<sup>1</sup> Volatile Organic Compounds (VOC) are used in solvent based coating processes, examples of solvents are N,N Dimethylformamide (DMF), N,N Dimethylacetamide (DMAC) or 1-Methyl-2-pyrrolidone (NMP). Carbon disulphide (CS<sub>2</sub>) is an organo sulphur compound and is considered as VOC due to the vapor pressure value.

揮發性有機化合物（VOC）用於溶劑型塗層工藝，溶劑示例：N，N-二甲基甲醯胺（DMF）、N，N-二甲基乙醯胺（DMAC）或 N-甲基吡咯烷酮（NMP）。二硫化碳（CS<sub>2</sub>）是一種有機硫化合物，因其蒸氣壓力值而被視為 VOC。



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maintained. Reference values for Lux (lx) at workplaces are listed in Annex 7.2.

#### 4.6.2.7 Heat stress

If there is any risk related to heat stress in hot environments, measures should be defined and introduced in the form of adequate clothing, regulated working hours with defined breaks, ventilation of rooms and, if possible, air conditioning of rooms.

#### 4.6.2.8 Personal Protective Equipment (PPE)

For the handling of hazardous materials (chemicals, solvents, etc.) and for hazardous workplaces with dust, noise, VOC and odour emissions, personal protective equipment such as gloves, goggles, aprons, dust masks, ear plugs, respiratory masks, etc., shall be provided free of charge. The personnel should be trained in using the equipment correctly. The working conditions and the use and choice of PPE shall be in line with the specifications in the (extended) SDS. Employees working in the area of a wastewater treatment plant with anaerobic processes should carry personal H<sub>2</sub>S detectors.

#### 4.6.2.9 Risk of explosion

Flammable liquids like methanol, isopropyl alcohol etc. may form potentially explosive mixtures in the air. Therefore appropriate measures to prevent explosions (e.g. earthing of metal drums and equipment, explosion proof electric installations) shall be taken. Organic dusts (e.g. cotton dust) are combustible and present a potential explosion hazard. Potential ignition should be prevented wherever organic dusts accumulate or form clouds.

#### 4.6.3 Facility safety

##### 4.6.3.1 Building structure

All structures within the facility shall be suitable and safe for the planned use and operation. Any located and/or reported weak points, damages, etc. shall be identified and documented and measures have to be taken accordingly.

If buildings are changed significantly or if the designated use of a building is going to be changed, a static expert shall be involved to ensure the building structure is suitable for the designated use.

Boilers, generators and transformers that require a permit shall be used only in accordance with the conditions of a valid licence. Critical installations such as pressure boilers and steam vessels shall be inspected at least annually by an external testing body or engineer.

#### 熱疾病/熱應激

如果高溫環境中存在任何與熱應力相關的風險，應確定並引進相應形式的措施，包括適當的防護服、規定的工作時間（含明確的休息時間）、房間通風以及（在可能的情況下）在房間配備空調。

#### 個人防護裝備(PPE)

公司應免費提供手套、護目鏡、圍裙、防塵口罩、耳塞、呼吸面罩等個人防護裝備(PPE)，供員工處理危險材料（化學藥品、溶劑等）並在有粉塵、噪音、揮發性有機化合物(VOC)和異味排放的危險工作場所內使用。應培訓員工正確使用這些裝備。工作條件以及 PPE 的使用和選擇應符合（擴展的）SDS 中的規範。在廢水處理廠區域工作的員工，在處理厭氧流程時應攜帶個人硫化氫檢測器。

#### 爆炸風險

甲醇、異丙醇等易燃液體可能在空氣中形成潛在的爆炸混合物。因此，應採取適當的措施防止爆炸（例如金屬鼓和設備接地處理、防爆型電氣裝置）。有機粉塵（例如棉塵）易燃，存在可能爆炸的危險。在有機粉塵積聚處或粉塵雲形成處應防止潛在的火源。

#### 工廠安全

##### 建築物結構

工廠內的所有結構須適合按計劃使用和操作，並保證安全。必須識別並記錄任何已確定和/或報告的薄弱點、損壞等，並採取相應措施。

如果建築物發生明顯變化或要更改建築物的指定用途，應請靜力學專家確保建築結構適合指定的用途。

需要許可的鍋爐、發電機和變壓器只能按照有效許可證的條件使用。每年須由外部測試機構或工程師至少檢查一次壓力鍋爐和蒸汽容器等重要設施。



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### 4.6.3.2 Incidents

Any events and incidents shall be documented. The documentation shall include their nature, extent, cause and the corrective measures taken. A staff member shall be nominated and trained appropriately in fire safety to deal with any related problems. Fire protection plans with measures for fire prevention, alarms, firefighting and deployment of the fire department shall be prepared and published. Emergency plans for all possible types of incidents (e.g. fire, accidents, chemical hazards, natural hazards such as floods, earthquakes, etc.) shall be prepared. Access to first aid equipment shall be guaranteed at all times in case of any accident. Escape routes and emergency exits have to be defined and properly marked. Emergency escape route plans (EFEP) shall be posted on various places in the facility. Escape routes and emergency exits shall be inspected at least every month to ensure that they are highlighted and freely accessible. In addition, emergency equipment shall be inspected annually to ensure that it is functional and freely accessible all times. Emergency and evacuation training sessions should be held every three years at minimum. All switch cabinets shall be closed at any time. All platforms, elevator shafts, stairs shall be secured to prevent workers from falling.

A disaster plan shall identify areas where incidents may have environmental consequences. Organisational safety measures such as inspections and maintenance of safety devices shall be documented.

Workers have the right to leave immediately and without special permission from situations that represent a risk to their health or safety.

### 4.6.3.3 Explosive atmospheres

Explosive atmospheres can be caused by flammable gasses, mists or vapours or by combustible dusts (e.g. storage and use of (highly) flammable liquids, battery chargers (exposure of H<sub>2</sub>-gas), use of flammable gas during maintenance). If there is enough of the substance, mixed with air, then all it needs is a source of ignition to cause an explosion. Explosions can cause loss of life and serious injuries as well as significant damage. Preventing releases of dangerous substances, which can create explosive atmospheres, and preventing sources of ignition are two widely used ways of reducing the risk. Using the correct equipment can help greatly in this.

The facility shall classify areas where explosive atmospheres may occur into zones. The classification given to a particular zone, and its size and location, depends on the likelihood of an explosive atmosphere occurring and its persistence if it does. The

### 事故

任何事件和事故都須記錄在案。文檔記錄須包括事件和事故的性質、範圍、原因和採取的糾正措施。必須指定一名經過適當消防安全培訓的工作人員，以處理任何相關問題。須制定並公佈包含防火、警報、消防和消防部門部署等措施的防火計劃。須針對所有可能類型的事件（例如，火災、事故、化學品危害、自然災害如洪水、地震等）制定應急計劃。必須保證在發生任何事故時，隨時能夠使用急救設備。必須設有逃生路線和緊急出口，並作適當標記。工廠內的各個場所都應張貼緊急逃生路線圖（EFEP）。每月須至少檢查一次逃生路線和緊急出口，確保它們標識醒目並可自由進出。此外，應每年檢查應急設備狀況以確保其正常運行，始終易於取用。應至少每三年開展一次緊急和疏散培訓課程。所有開關櫃應隨時關閉。所有平臺、電梯井、樓梯均應加固，以防止工人墜落。

災難應急計劃須識別事故可能對環境造成影響的區域。應記錄組織安全措施，例如安全裝置的檢查與維護。

工人有權在無需獲得特別許可的情況下立即離開對自身健康或安全構成威脅的場合。

### 爆炸性環境

爆炸性氣體環境可能由易燃氣體、薄霧或蒸汽或可燃粉塵造成（例如儲存和使用（高度）易燃液體、電池充電器（氫氣暴露）、維護期間使用易燃氣體）。如果足量的此類物質與空氣混合，那麼出現火源就會引起爆炸。爆炸可能造成人員死亡和重傷以及重大破壞。避免釋放形成爆炸氣體環境的危險物質和防止出現火源是兩種廣泛使用的降低風險的方法。使用正確的設備會大有說明。

工廠應當劃分可能產生爆炸氣體環境的區域。特定區域的劃分及其規模和位置取決於產生爆炸氣體環境的可能性及產生後的持久性。劃分區域計劃應當用於選擇電氣元件。劃分區域應遠離火源。選定擬在劃分區域使用的設備和保護系統應符合設備的要



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classified zone plan shall be used to select the electrical components. Areas classified into zones should be protected from sources of ignition. Equipment and protective systems intended to be used in zoned areas should be selected to meet the requirements of the equipment e.g. explosion safe electrical equipment and protective systems intended for use in potentially explosive atmospheres.

#### 4.6.4 Risk assessment

The identification of risks in the area of health and safety serves the overall safety of the facility and highlights the areas in which safety measures shall be taken and reinforced. Potential aspects of a risk assessment shall be:

- Dangerous situations, such as fire and explosions (flammable gases, dust, etc.)
- Workplace safety
- Employee stress (physical, mental)
- Health risks (illnesses, allergies)
- Risks due to environmental factors (earthquakes, storms, etc.)

One possible risk assessment method is described in chapter 4.5.10.

#### 4.6.5 Records/Documentation

The facility should introduce and maintain a Plan-Do-Check-Act (PDCA) methodology for health and safety systems as per ISO 45001, for example. All activities and documents introduced in the organisation should be maintained and updated.

Management shall define a document on the health and safety policy of the organisation. The health and safety policy should be communicated to all persons who work under the control of the organisation and made available to interested parties.

The facility should establish and document procedures for ongoing hazard identification, risk assessment and determination of necessary controls. These procedures should take into account all risks to health and safety, such as work environments, machines, noise, dust, vibration, use of chemicals, work-related stress (physical and psychological) and the use of display screen equipment.

The management shall define and document a chart of all the employees responsible for health and safety that identifies at least the following positions: department manager, health and safety manager, person responsible for emergencies, fire extinguishing equipment and first aid, operational health and safety physician and the workers' representative for operational health and safety. Sufficient first aid and fire fighting personnel shall be present during production and maintenance operation.

求，例如擬在潛在爆炸氣體環境中使用的防爆電氣設備和保護系統。

#### 風險評估

識別健康和 safety 領域的風險有助於維護工廠的整體安全，並可重點突顯必須採取和加強安全措施的區域。有潛在風險評價需求的情況可包括：

- 危險情況，如火災和爆炸（易燃氣體、粉塵等）
- 工作場所安全
- 員工壓力（身體、心理）
- 健康風險（疾病、過敏）
- 環境因素造成的風險（地震、暴風等）

可能的風險評估方法見 4.5.10 章節

#### 記錄/文檔

工廠應按照（例如）ISO 45001 引進並維護用於健康與安全體系的“策劃-實施-檢查-改進”(PDCA)方法。應保持並更新組織中引進的所有活動和文件。

管理層須制定有關組織健康與安全政策的文件。健康和 safety 政策必須傳達給在組織管理下工作的所有人員，並提供給相關方。

工廠應建立並記錄持續識別危險、風險評估以及確定必要控制措施的程序。這些程序應考慮到有關健康和 safety 的所有風險，例如工作環境、機器、噪音、粉塵、振動、化學品使用、與工作相關的壓力（身體和心理）以及顯示屏設備的使用。

管理層必須確定和記錄負責健康和 safety 的全體員工圖表，至少標明以下職位：部門經理、健康和 safety 經理、緊急情況消防設備和急救負責人、職業健康和 safety 醫師以及職業健康和 safety 工人代表。生產和維護操作期間必須有足夠的急救和消防人員在場。



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The facility:

- Shall perform an internal audit with the responsible health and safety staff at least once a year
- Should document operational health and safety training activities
- Should develop a documented procedure for communicating health and safety policies to contractors and visitors
- Should define a process for controlling health and safety documents and records
- Shall document health and safety incidents and take appropriate corrective and preventive measures

#### 4.6.5.1 Internal audits (H&S)

The health and safety management system should be reviewed in frequent and regular intervals. The facility shall have a procedure and in particular shall have an audit plan/program for determining the suitability of its health and safety system. The key to this is to assess health and safety matters and their effective introduction and implementation. Internal audits of the health and safety system shall be performed annually and according to an audit plan/program containing the main points to be audited within 3 years.

A corresponding audit report shall be issued incl. name(s) of internal auditor(s), findings as well as a corrective and preventive action plan. Whenever possible, photos as evidence should be included. Furthermore it shall be defined who is accountable for ensuring the corrective action and a date for completion of such.

#### 4.6.6 Compliance

For the protection of workers in relation to the use of chemicals, noise and dust emissions, the national legal requirements shall be complied with. This also includes compliance with the standards ISO 8995 (“Lighting of workplaces”) and ISO 7243 (“Ergonomics of the thermal environment - Assessment of heat stress using the WBGT index”) and standards for vibrations. The aim should be to reduce exposure to below these limit values

The facility shall establish a procedure for identifying and assessing the applicable legal and other health and safety requirements, as well as periodically assess the compliance with these requirements. In addition, objectives regarding compliance with the applicable legal requirements and the reduction of risks in the area of health and safety should be accomplished.

工廠：

- 須每年對負責健康和安全的員工進行至少一次內部審核
- 應記錄職業健康和安全教育活動
- 應制定書面程序，用於向承包商和訪客傳達健康和安全管理政策
- 應制定管理健康和安全管理文件以及記錄的流程
- 須記錄健康和安全管理事故，並採取適當的糾正和預防措施

#### 內部審核（健康和安全管理）

應經常定期審核健康和安全管理體系。工廠必須設有程序，尤其是用於確定其健康和安全管理體系適用性的審核計劃/程序。制定程序的主要目的在於評估健康和安全管理事項及其有效的引入和實施。健康和安全管理體系的內部審核應每年執行一次，並應根據包含3年內審核要點的審核計劃/程序來執行。

應發佈相應的審核報告，包含內部審核員姓名、審核結果以及糾正與預防措施計劃。盡可能附上照片作為證據。此外，還應確定由誰負責確保採取糾正措施，以及完成糾正措施的日期。

#### 合規性

為保護使用化學品、參與噪音和粉塵排放的有關工人，工廠必須遵守國家法律要求。這還包括符合標準ISO 8995（“工作場所的照明”）和ISO 7243（“熱環境人類功效學”）以及震動標準。目標應當是將暴露降到限量值以下。

工廠應建立識別和評估適用法律及其他健康和安全管理要求的程序，並定期評估其是否符合這些要求。此外，應實現有關遵守適用法規要求和降低健康和安全管理領域風險的目標。



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#### 4.6.7 Acceptance of Third-Party certificates

Recognised third-party certificates that are of significance for health and safety are listed in Annex 8.

If a facility is certified by a third-party certification system, documents and records of the certification process, including the certificate and validity period, shall be made available to the OEKO-TEX® Institute.

### 5 Testing and certification process

#### 5.1 General conditions

The terms and conditions for the conclusion of the certification agreement, the performance of these procedures, including the quality assurance and audit procedures, and the issuing of the OEKO-TEX® STeP certificate are governed by this standard and the Terms of Use (ToU).

#### 5.2 Certification process

The OEKO-TEX® STeP certification process involves a web-based data collection and an on-site audit at the facility.

The data is recorded through a web-based assessment tool. The companies have to fill out an extensive online questionnaire and provide evidence of their statements through relevant documents. The information and data provided by the company through this assessment tool is analysed and evaluated by the OEKO-TEX® Institute. The information provided are verified and the submitted documents validated in an audit of the production facility by the responsible OEKO-TEX® Institute. Once the process is successfully completed, the validated company receives a STeP certificate and a qualified OEKO-TEX® audit report.

##### 5.2.1 Application

Applications for OEKO-TEX® STeP certification are made exclusively through the online form on the OEKO-TEX® website. The OEKO-TEX® Institute contacted by the applicant provides guidance and support during the certification process and supplies the login data for the web-based assessment tool. With the submission of application form for STeP certification alongside the signed ToU, the applicant accepts the obligation to assume the costs incurred by the Institute during the audit. This applies even if it emerges during the audit process that the facility cannot attain the certification at that point in time due to a failure to comply with exclusion criteria.

#### 認可的第三方認證

附錄 8 中列出了對健康和具有重要意義的受認可的第三方證書。

如果工廠通過了第三方認證體系的認證，則應向 OEKO-TEX® 認證機構提供包括證書和有效期限在內的認證過程文件和記錄。

#### 檢測和認證流程

##### 通用條件

本標準和使用條款(ToU)規定了完成認證協議的條款和條件、這些程序的執行(包括質量保證和審核程序)以及 OEKO-TEX® STeP 證書的頒發。

##### 認證過程

OEKO-TEX® STeP 認證過程包括基於網絡的信息收集和工廠現場審核。

信息通過基於網絡的評估工具進行記錄。公司需填寫詳盡的在線調查問卷，並通過相關文件提供其陳述的證據。OEKO-TEX® 機構將分析並評估企業通過評估工具提供的信息和數據。在對生產工廠進行審核時，負責的 OEKO-TEX® 機構將驗證所提供的信息並確認所提交的文件。成功完成該過程後，經過確認的企業將收到 STeP 證書和 OEKO-TEX® 審核報告。

##### 申請

僅可通過 OEKO-TEX® 網站上的在線表單申請 OEKO-TEX® STeP 認證。申請人聯繫的 OEKO-TEX® 機構會在認證過程中提供指導和支持，並提供基於網絡的評估工具的登錄數據。將 STeP 認證申請表與簽署好的 ToU 一起提交後，申請人有義務承擔認證機構在審核過程中產生的費用。即使在審核過程中工廠由於不符合排除標準而無法在當時獲得認證，也將適用這一規定。



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## 5.2.2 Data collection and evaluation

The basis of the internal evaluation and certification is the information that the customer provides in his or her application and in the online assessment tool.

There are two ways to use this tool:

- **STeP certification:** The evaluation is used in the application and serves as the basis for all tests and certifications within the OEKO-TEX® STeP process. This evaluation reports and documents the facility performance and data and contains the most important information that a customer supplies during the OEKO-TEX® STeP certification process. It is the basis for subsequent auditing, verification and certification.
- **Self-Assessment:** Some facilities may complete the assessment tool for an internal evaluation and have their answers reviewed by OEKO-TEX® STeP experts without any subsequent audits and verifications. This results in an OEKO-TEX® evaluation and a quality report. This report can give a facility an idea of its own sustainability performance and may be helpful for internal use. However, certification cannot be obtained through this evaluation alone.

## 5.2.3 Certification

The information and data provided by the customer is analysed and evaluated by OEKO-TEX®. The specifications provided are verified and the submitted documents validated in an audit of the production facility by the responsible OEKO-TEX® Institute.

The evaluation of the six individual modules is backed up in a standardised way for all stages of production through the use of a scoring system (see 5.4).

Certification is not possible if the minimum percentage score for the OEKO-TEX® STeP standard is not achieved and/or the specified exclusion criteria are not fulfilled (see Annex 10).

If the testing OEKO-TEX® Institute determines that certification is not possible due to the failure to fulfil one or more exclusion criteria, the customer is notified of this fact immediately.

The OEKO-TEX® STeP certification process is documented in a formalised report and, if the minimum percentage score has been achieved, completed by issuing the certificate for the customer.

## 5.3 Assessment tool

The web-based assessment tool can be used to determine whether the facility is fundamentally suitable for the certification or which measures and improvements are required in advance. In addition,

## 數據收集和評估

內部評估和認證的基礎是客戶在其申請和在線評估工具中提供的信息。

該工具的使用方式有兩種：

- **STeP 認證：**在應用中使用評估，並將其作為 OEKO-TEX® STeP 過程中所有檢測和認證的基礎。該評估報告並記錄工廠績效和數據，並包含客戶在 OEKO-TEX® STeP 認證過程中提供的最重要的信息。它是後續審核、驗證和認證的基礎。
- **內部評估：**有些工廠可以使用評估工具用於內部評估，由 OEKO-TEX® STeP 專家審查其答案，而不進行後續審核和驗證。從而獲得 OEKO-TEX® 評估結果和質量報告。該報告可以使工廠瞭解其自身的可持續性績效，便於內部使用。但是，僅完成評估無法獲得認證。

## 認證

OEKO-TEX®對客戶提供的信息和數據進行分析和評估。在對生產工廠進行審核時，負責檢測的 OEKO-TEX®機構會驗證所提供的說明並確認提交的文件。

可藉助評分系統，以標準化方式對所有生產階段的六個單獨模塊的評估提供支持（參見 5.4）。

如果未達到 OEKO-TEX® STeP 標準的最低百分比得分和/或不滿足指定的排除標準，則無法獲得認證（參見附錄 10）。

如果 OEKO-TEX®檢測機構確定由於未能滿足一項或多項排除標準而無法通過認證，將立即通知客戶這事實。

OEKO-TEX® STeP 認證過程會記錄在正式報告中，如果已達到最低百分比得分，則向客戶頒發證書，完成該過程。

## 評估工具

基於網絡的評估工具可用於確定工廠是否基本上符合認證標準，或需要提前採取哪些措施並進行改進。此外，該工具還可以高效地對數據進行評估。評估從詢問一些有關公司和工藝的一般問題開始。然後，會



STeP

the tool enables efficient data evaluation. The assessment starts with some general questions about the company and processes. Then the applicant is asked to complete the assessment by answering basic questions as well as advanced questions in all six modules.

要求申請人回答所有六個模塊中的基本問題和高級問題以完成評估。

### 5.3.1 Basic questions

These assessment questions are mandatory and must be answered by the customer as a condition for the certification process.

### 基本問題

這些評估問題是強制性的，是認證過程的一個條件，客戶必須回答。

### 5.3.2 Exclusion criteria

The exclusion criteria are part of the basic questions. They are the most important criteria for determining suitability for participation in the OEKO-TEX® STeP certification programme. All the exclusion criteria must be fulfilled if a facility is to be eligible for OEKO-TEX® STeP certification (see Annex 10).

### 排除標準

排除標準屬於基本問題的範圍。排除標準是 OEKO-TEX® STeP 認證計劃參與資格的最重要衡量標準。為了符合 OEKO-TEX® STeP 認證的參與資格，生產工廠必須滿足所有的排除標準。（參見附錄 10）

### 5.3.3 Advanced questions

OEKO-TEX® gives customers that strive for “best practice” the opportunity to document and subsequently verify more detailed procedures for their facilities. In this case, the customer can voluntarily answer all questions flagged as “advanced level”.

### 高級問題

OEKO-TEX®讓追求“最佳實踐”的客戶有機會記錄並隨後驗證更多有關其工廠的詳細程序。在這種情況下，客戶可自願回答標記為“深度”的所有問題。

## 5.4 Scoring system

## 評分系統

### 5.4.1 General evaluation rules

The assessment is carried out according to a weighted method, in which each of the six modules is weighted equally. For this reason, each module makes up 1/6 of the total percentage of 100%.

### 一般評估規則

通過加權方法進行評估，其中六個模塊中每個模塊的權重相同。因此，每個模塊佔總百分比 100% 的 1/6。

Each module contains specific performance criteria that are assessed in the form of basic questions (including exclusion criteria) and advanced questions. These criteria are set out in the sections below.

每個模塊都包含特定的績效標準，這些標準通過基本問題（包括排除標準）和高級問題的形式進行評估。這些標準在下述內容中示出。

### 5.4.2 Rating of performance

### 績效評級

**Not passed** Any exclusion criterion is not fulfilled or less than 70% of the points from basic questions are achieved

不合格 不滿足任何排除標準

**Level 1: Entry level** 70% of the points from the basic questions are achieved (including the exclusion criteria for each module). If more than 70% of the points from the basic questions are achieved, they are awarded for a higher level.

**1 級：入門級** 基本問題中有 70% 達標（包括每個模塊的排除標準）。如果基本問題的達標率超過 70%，則級別更高。

**Level 2: Good implementation** 34% of the advanced questions (including any remaining basic points) are attained

**2 級：良好實施** 高級問題（包括任何其餘的基本要點）中有 34% 達標

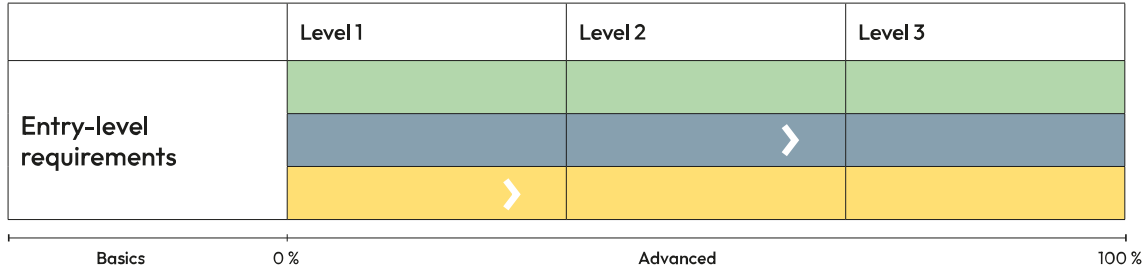




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**Level 3: Exemplary implementation** 67% of the advanced questions (including any remaining basic points) are attained

**3 級: 示範性實施** 高級問題 (包括任何其餘的基本要點) 中有 67% 達標



## 5.5 Audits

## 審核

### 5.5.1 Certification audit

### 認證審核

A site inspection (audit) is mandatory for a final assessment and for verifying the conformity of the details provided by the customer. The scope of the audit depends on the size and the production of the facility and on the quality of the prepared documents. The specially trained auditors carry out the audit within the facility.

需強制性進行現場檢查 (審核), 以完成最終評估並驗證客戶提供的信息是否真實詳盡。審核範圍取決於工廠的規模和生產以及所編制文件的質量。審核由受過專門訓練的審核人員在工廠內進行。

### 5.5.2 Tests

### 檢測

If certain technical details cannot be proven with documents, the audit team is entitled to order or independently perform tests. This applies in particular to specific limit values (e.g. wastewater or air emissions) that must be proven by reports from nationally authorised or accredited laboratories (according to ISO 17025) in accordance with the requirements of national and international standards or that were tested by OEKO-TEX® members. Furthermore, the audit team is entitled to take or arrange random samples.

如果某些技術細節無法通過文件進行證明, 則審核團隊有權要求或獨立執行檢測。這尤其適用於必須由國家授權或認可的實驗室 (根據 ISO 17025) 根據國家和國際標準的要求予以報告證明或由 OEKO-TEX® 成員進行檢測的特定限量值 (例如, 廢水或空氣排放物)。此外, 審核團隊有權採取或安排隨機樣品。

### 5.5.3 Re-Audit

### 重新審核

An additional re-audit can be carried out and assessed if specific obligations occur that need to be fulfilled before the certification. The customer will be informed of this by the Institute tasked with the audit.

如果在頒發證書之前還需要履行某些特定的義務, 可能會要求重新進行審核和評估。若出現此情況, 負責審核的機構會將其通知給客戶。

### 5.5.4 Compliance audit

### 合規性審核

The Institute tasked with the audit carries out a compliance audit every 18 months. For this audit, the customer shall update any existing assessment data (in the online assessment tool) and remove any invalid documents or add new documents, if necessary. The compliance audit is mandatory for all STeP certified facilities and shall be completed not later than 22 months after initial certification.

負責審核的機構每 18 個月進行一次合規性審核。為接受該審核, 客戶必須更新所有現有的評估數據 (在線評估工具上) 並移除任何無效檔或在必要時添加新檔。所有 STeP 認證工廠都必須接受合規性審核, 並且應在初始認證后 22 個月內完成審核。



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The compliance audit requires less auditing work by the OEKO-TEX® Institute because most of the information and documents are already available and most of the requirements have already been checked.

### 5.5.5 Unannounced audit

OEKO-TEX® and its auditors have the right to make an unannounced audit to a OEKO-TEX® STeP certified facility at any time. The facility must allow entry for the auditors during unannounced audits as per the signed ToU and must allow STeP auditing to be conducted at any time. The cost for this unannounced audit are to be paid by the facility.

The names of a maximum of six management representatives must be included in the document so that they can act as deputy representation. The company ensures that at least one of these management representatives is available to host the STeP audit at any time. The management at the applying facility is responsible for keeping this list of contact persons up to date. Any failure to allow entry into the factory will result in the withdrawal of the certificate.

### 5.6 Rights of the auditors

The conditions for the rights of the auditors are based on the Terms of Use. The internal STeP Auditor Code of Conduct also applies.

### 5.7 Audit report

Following the certification audit, the OEKO-TEX® Institute entrusted with the audit compiles a detailed audit report and delivers it to the customer. Among other things, the report contains summaries of the six STeP modules, obligations and recommendations (insofar as they are expressed by the auditing Institute) as well as a photo log.

### 5.8 Issuing the certificate

If the conditions of this standard are met, the customer receives a two-page certificate. The Institute entrusted with the audit supplies this certificate issued by OEKO-TEX®.

### 5.9 Validity and renewal of the certificate

The OEKO-TEX® STeP certificate is valid for three years (36 months) from the date of issue. If a customer decides to extend the certificate, then the extension must be initiated before the validity expires. The expiration date of the renewed certificate is exactly 3 years after the expiration date of the previous one and cannot be adjusted. Delayed performed renewals do not lead to an extension of the certificate validity (see also ToU).

合規性審核不會要求 OEKO-TEX® 機構做太多的審核工作，因為大部分信息和文件都已提供，並且大部分要求都已經過檢查。

### 突擊審核

OEKO-TEX® 及其審核員有權在任何時間對通過 OEKO-TEX® STeP 認證的工廠進行突擊審核。在突擊審核期間，工廠必須允許審核員按照簽署的 ToU 進入，並且必須允許 STeP 審核隨時進行。突擊審核的費用由工廠支付。

文件須包含多達六名管理代表的姓名，以便有人可作為副代表。公司需確保這些管理者代表中隨時都有至少有一人能夠主持 STeP 審核。申請工廠的管理層負責更新該聯繫人名單。任何未能允許進入工廠的行為都將導致證書撤銷。

### 審核人員的權利

使用條款中有關於審核人員權利情況的基本信息，內部 STeP 審核人員行為準則中也有所涉及。

### 審核報告

受委託進行審核的 OEKO-TEX® 機構在完成認證審核之後，會編制詳細的審核報告並將其交付給客戶。另外，該報告中含有六個 STeP 模塊的總匯信息、義務和建議（審查機構明確表示會報告的內容）以及照片日誌等。

### 頒發證書

如果滿足本標準的條件，客戶將收到具有兩頁內容的證書。受委託進行審核的機構提供由 OEKO-TEX® 頒發的該證書。

### 證書有效性和續期

OEKO-TEX® STeP 證書的有效期限為自頒發之日起三年（36 個月）。如果客戶決定延長證書有效期，則必須在有效期限屆滿之前辦理延長手續。續期證書的有效期限與前一證書的有效期限正好相隔 3 年，且不可調整。延遲續約不會導致證書有效期限的延長（另請參閱 ToU）。



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The conditions for the validity period, renewal and possibly withdrawal of the certificate are based on the Terms of Use (ToU).

## 5.10 Benchmarks

Within the framework of OEKO-TEX® STeP, OEKO-TEX® provides industry benchmarks for its customers. These benchmarks are provided in various modules. For example, there may be regional and global benchmarks. Customers can use these benchmarks to compare their performance with the benchmarks published by OEKO-TEX® STeP.

Furthermore, the performance of certified facilities within categories including spinning mills, dyeing plants, cutting and sewing operations, etc., are recorded and used as benchmarks for comparing performance within a sector.

For this reason, there are two ways to create benchmarks within the framework of OEKO-TEX® STeP:

- Based on the published criteria (key data), published as standard
- Based on comparable services within a similar category

## 5.11 Acceptance of Third-Party certification systems

The OEKO-TEX® STeP system includes certain certification providers whose standards and certifications are certified as meeting the OEKO-TEX® STeP standard. This allows for synergies within the industry to be utilised and helps to avoid double expenditure and investments. The third-party certifications and systems that are recognised and endorsed by the OEKO-TEX® STeP criteria have been reviewed by our team of experts and ranked as at least equivalent to the OEKO-TEX® STeP criteria.

In all cases, OEKO-TEX® auditors perform controls in the form of random samples. If there is any doubt, this may result in the failure to meet the OEKO-TEX® STeP requirements of ensuring clarity and certainty.

Third-party certification does not entitle a customer to refrain from answering some of the questions asked by the OEKO-TEX® STeP assessment tool. To receive a full evaluation, the customer must answer all the questions. However, depending on the respective third-party certification system the STeP assessment tool allows an automatic pre-selection of affected questions. This should facilitate the work of the customer. Answering the questions also helps to standardise the answers to enable a cross-comparison of facilities (OEKO-TEX® STeP third-parties) and enable the auditors to confirm any existing certifications through testing.

有效期、續期和可能撤銷證書的條件均以使用條款 (ToU) 為依據。

## 基準

OEKO-TEX® 可為其客戶提供在 OEKO-TEX® STeP 框架內的行業基準。這些基準提供於各模塊中。例如，可能存在地區和全球基準。客戶可以使用這些基準，將他們的績效與 OEKO-TEX® STeP 發佈的基準進行比較。

此外，紡織作坊、染色車間、裁剪和縫紉工廠等工廠若獲得認證，均會對其績效進行記錄，並被用作比較部門內績效的基準。

因此，創建在 OEKO-TEX® STeP 框架內的基準的方法有兩種：

- 根據作為標準發佈的準則（關鍵數據）創建
- 根據類似類別的同類服務創建

## 第三方認證體系的承認

OEKO-TEX® STeP 系統包括某些認證提供商，其標準和認證能力均經過認證並滿足 OEKO-TEX® STeP 標準。這使得可以利用行業內的協同作用，並且有助於避免雙重支出和投資。由 OEKO-TEX® STeP 標準認可和讚同的第三方認證和體系已經過我們專家團隊的審查，並且其排名至少與 OEKO-TEX® STeP 標準相當。

在所有情況下，OEKO-TEX® 審核人員都以隨機樣品的形式進行控制。如有任何不確定因素存在，均可能導致無法滿足 OEKO-TEX® STeP 關於確保明晰性和確定性的要求。

第三方認證並不授予客戶拒絕回答 OEKO-TEX® STeP 評估工具所詢問的某些問題的權利。為實現全面評估，客戶必須回答所有問題。不過，STeP 評估工具允許自動預選受影響的問題，具體取決於相應的第三方認證體系。這將有利於客戶的工作。回答問題還有助於使答案標準化，以實現工廠的交叉比較 (OEKO-TEX® STeP 第三方)，並使得審核人員能夠通過檢測來確認任何現有的認證。



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Third-party certification is accepted in a number of different areas of OEKO-TEX® STeP. Recognised certification providers are listed in Annex 8.

## 5.12 Other applicable standards

The preferred testing standards are:

- International standards (e.g. ISO, IEC, etc.)
- National standards
- Standards from recognised industry associations
- Regional standards

The current legal situation shall be checked in each case. Most countries have analysis standards and other applicable standards for performing tests and management systems. In addition, there are generally recognised references that are used by the textile, clothing and leather industry. These references are usually issued by industrial trade groups (e.g. ISO, IEC, CEN, CENELEC) and sometimes by governmental groups (e.g. CPSC in the USA). It is impossible to list all the applicable standards, especially since this list is constantly changing. However, it is important to cite and document any categories within the context of OEKO-TEX® STeP appropriately so that the auditor is able to identify the source with absolute certainty and assess its validity and implementation.

## 5.13 Information references

Many of the targets specified in the OEKO-TEX® STeP standard can be achieved in different ways. To enable the user to better understand these possibilities and help the user to achieve the targets, Annex 9 contains a list of information references.

# 6 Legal Relationship between customer and OEKO-TEX®

The basis for the legal relationship between the customer and OEKO-TEX® is an application request from the customer to an OEKO-TEX® Institute of their choice (see Annex 1) to certify his or her facility in accordance with the OEKO-TEX® STeP Standard.

The OEKO-TEX® Terms of Use (ToU) apply for all OEKO-TEX® products (see Annex II). The ToU can be found under [www.oeko-tex.com/ToU](http://www.oeko-tex.com/ToU).

OEKO-TEX® STeP 在許多不同領域都承認第三方認證。附錄 8 中列出了受認可的認證提供商。

## 其他適用標準

首選測試標準包括：

- 國際標準（例如 ISO、IEC 等）
- 國家標準
- 受認可的行業協會所發佈的標準
- 地區標準

在各種情況下，都應檢查現行法律狀況。大多數國家都有執行測試和管理的分析標準和其他適用標準。此外，也有由紡織品、服裝和皮革行業使用的廣受認可的參考資料。這些參考資料通常由行業貿易組織（例如 ISO、IEC、CEN、CENELEC）發行，有時也由政府機構（例如美國的 CPSC）發行。特別是標準處於不斷發展變化之中，因此無法列出所有適用的標準。但是，適當地引用並記錄任何 OEKO-TEX® STeP 範疇內的類別非常重要，這樣有利於審核人員以絕對的把握度來識別標準出處並評估其有效性和實施情況。

## 信息參考

OEKO-TEX® STeP 標準中規定的許多目標可通過不同方式實現。為了使用戶能夠更好地理解這些可能性並幫助用戶實現目標，附錄 9 中列出了一個信息參考資料列表。

## 客戶與 OEKO-TEX® 之間的法律關係

客戶向其選定 OEKO-TEX® 機構（參見附錄 1）提交的根據 OEKO-TEX® STeP 標準對其工廠進行認證的申請請求是客戶與 OEKO-TEX® 之間法律關係的基礎。

OEKO-TEX® 使用條款 (ToU) 適用於所有 OEKO-TEX® 產品（參見附錄 II）。可以在 [www.oeko-tex.com/ToU](http://www.oeko-tex.com/ToU) 查看 ToU。



STeP

## 1 Annex

## 附錄

### OEKO-TEX® Institutes

The International OEKO-TEX® Association consists of independent institutes in Europe and Japan, with offices around the globe.

The testing and research institutes offering certification and licensing according to MADE IN GREEN, STANDARD 100, ORGANIC COTTON, LEATHER STANDARD, STeP, ECO PASSPORT and / or RESPONSIBLE BUSINESS can be found on the OEKO-TEX® homepage [www.oeko-tex.com/en/about-us/offices](http://www.oeko-tex.com/en/about-us/offices).

The OEKO-TEX® Secretariat can be contacted at the following address:

**OEKO-TEX Service GmbH**  
Genferstrasse 23, CH-8002 Zürich, Switzerland  
Phone: +41 44 501 26 00  
E-Mail: [info@oekotex.com](mailto:info@oekotex.com)  
Web: [www.oeko-tex.com](http://www.oeko-tex.com)

### OEKO-TEX®機構

OEKO-TEX®國際環保紡織及皮革協會由獨立的歐洲和日本檢測機構組成，辦事處遍佈全球。

提供 MADE IN GREEN、STANDARD 100、ORGANIC COTTON、LEATHER STANDARD、STeP、ECO PASSPORT 和/或 RESPONSIBLE BUSINESS 認證和許可的測試和研究機構可在 OEKO-TEX® 主頁上找到 [www.oeko-tex.com/en/about-us/offices](http://www.oeko-tex.com/en/about-us/offices)。

可通過以下方式聯繫 OEKO-TEX®秘書處：



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## 2 Annex

## 附錄

### Labelling

### 標籤

When a OEKO-TEX® STeP certificate is issued, the certificate holder receives a licence to use the corresponding OEKO-TEX® label.

頒發 OEKO-TEX® STeP 證書後，證書持有者將獲得使用相應 OEKO-TEX® 標籤的許可。

The OEKO-TEX® Labelling Guide covers rules and guidelines that govern the use of the OEKO-TEX® trademark and OEKO-TEX® labels. It defines the guideline for a standardised appearance of the OEKO-TEX® labels. It assists companies, manufacturers, brands, retailer and all OEKO-TEX® partner to label their certified products correctly and to develop marketing materials to communicate company efforts.

OEKO-TEX® 標籤使用指南涵蓋了管理 OEKO-TEX® 商標和 OEKO-TEX® 標籤的使用規則及指南。並對 OEKO-TEX® 標籤的標準化外觀使用規定作出了定義。它可幫助企業、製造商、品牌商、零售商及所有 OEKO-TEX® 合作夥伴正確使用標籤來標記其認證的產品，還可用作開發市場的材料以傳達企業在此做出的努力。

#### [Labelling Guide](#)

#### [標籤使用指南](#)

All layout version of the OEKO-TEX® labels can be downloaded via the Label Editor in the myOEKO-TEX® platform.

OEKO-TEX® 標籤的所有佈局版本都可通過 myOEKO-TEX® 平台的標籤編輯器下載。



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### 3 Annex

#### OEKO-TEX® STeP Chemical List

#### 3.1 Manufacturing Restricted Substance List (MRSL)

The intentional use of the chemicals described below is prohibited within the framework of the OEKO-TEX® STeP certification. The OEKO-TEX® STeP Chemical List is compliant with substances of very high concern (SVHC) listed in the most current and authentic version of the Candidate List of substances of very high concern for authorisation (published in accordance with Article 59(10) of the REACH Regulation. In addition, low concentrations or contaminants of the described chemicals may be inadvertently contained in the added textile chemicals and should be considered / evaluated according to the technical and informative possibilities. If chemicals and auxiliaries used in production contain one or more of the prohibited substances, even as unintentional low concentrations or as contaminants, it shall be ensured that the clothing / textile / leather product or accessories (e.g. buttons, metal accessories, etc.) fulfil the current requirements according to STANDARD 100 or LEATHER STANDARD by OEKO-TEX®.

#### 3.2 Verification and inspection of the compliance with these requirements

The applicant may provide evidence by providing supplier declarations, third-party certificates of conformity, safety data sheets, etc. The decision of which proof, documents etc. are used and accepted is deliberated and determined exclusively by the OEKO-TEX® institute. The institute can also request the test of chemicals or finished textiles/leather/materials. This decision cannot be questioned.

#### 3.3 Wastewater and sludge testing

Companies with wet processes (incl. industrial laundries) need to have a detailed wastewater and sludge (if applicable) analysis available. The substances and corresponding limit values and reporting limits defined in the STeP Chemical List (see below) shall be considered.

- Substances for which a limit value is defined or "testing required" is indicated shall be tested
- Substances for which only a reporting limit is defined should be tested
- Substances for which neither a limit value nor a reporting limit is defined do not need to be tested

### 附錄

#### STeP OEKO-TEX®化學品清單

#### 製造過程受限物質清單

OEKO-TEX® STeP 認證框架禁止故意使用下列化學品。OEKO-TEX® STeP 化學品清單符合最新且正式版本的高度關注物質授權候選清單中列出的高度關注物質 (SVHC) (根據 REACH 法規第 59 (10) 條發佈)。此外，所添加的紡織化學品中可能會無意摻雜有低濃度的下述化學品或無意中造成下述化學品的污染，應根據技術和資訊的可能性予以考慮/評估。如果生產所用化學品和助劑中含有一種或多種禁用物質，即便是無意引入的低濃度物質或污染物，也應確保服裝/紡織品/皮革產品或輔料 (例如鈕扣、金屬配件等) 符合現行的 OEKO-TEX® STANDARD 100 或 LEATHER STANDARD 要求。

#### 驗證和檢驗該要求的合規性

申請人可通過提供供應商聲明、第三方授予的符合相關要求的證書、安全數據表等來提供證據。決定使用和承認哪些證明、文件等由認證機構專門審議並確定。該機構還可以要求對化學品或成品紡織品/皮革/材料進行檢測。這一決定不容質疑。

#### 廢水和污泥檢測

採用濕式製程的企業 (包括工業洗衣店) 需要提供詳細的廢水和污泥 (如適用) 分析。應考慮 STeP 化學品清單 (見下文) 中定義的物質和相應的限量值及報告限量值。

- 必須對規定限量值或指明“需檢測”的物質進行檢測
- 應當對僅規定報告限值的物質進行檢測
- 既未規定限量值也未規定報告限值的物質，無需進行檢測



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- Facilities producing Viscose (CV) and Modal (CMD) fibres do not require to test all parameters listed in Annex 3, i.e. only Alkylphenolethoxylates (APEO's), total Cr, Cd, Cu, Ni, Cr (VI), Pb, Hg and Zn in wastewater and only Alkylphenolethoxylates (APEO's) in sludge. In Annex 6.1 are all conventional parameters listed, which are also relevant.
- 生產黏膠(CV)和莫代爾(CMD)纖維的工廠無需測試附錄 3 中列出的所有參數,即僅測試烷基酚聚氧乙烯醚(APEO)、鉻、鎘、銅、鎳、六價鉻、鉛、汞和鋅總量即可。附錄 6.1 中列出了所有相關的常規參數。





STeP

Substance	CAS No.	MRSL	Wastewater		Sludge	
			Limit Values [µg/l]	Reporting Limit [µg/l]	Limit Values [mg/kg]	Reporting Limit [mg/kg]
<b>1. Alkylphenols (AP's) / Alkylphenoethoxylates (APEO's)</b>						
Nonylphenol (n-nonyl and iso-nonyl)	Various 11066-49-2 25154-52-3 104-40-5 90481-04-2 84852-15-3	X X X X X X	5	1	testing required	0.4
Octylphenol (n-octyl and iso-octyl)	Various 140-66-9 27193-28-8 1806-26-4	X X X X	5	1	testing required	0.4
Heptylphenol (branched and linear)	Various	X	-	-	-	-
Pentylphenol (branched and linear)	Various	X	-	-	-	-
Nonylphenoethoxylates (NPEO) (n-nonyl and iso-nonyl)	Various 9016-45-9 26027-38-3 68412-54-4 127087-87-0 37205-87-1	X X X X X X	5	1	testing required	0.4
Octylphenoethoxylates (OPEO) (n-octyl and iso-octyl)	Various 9002-93-1 9036-19-5 68987-90-6	X X X X	5	1	testing required	0.4
<b>2. Phthalates</b>						
Benzylbutylphthalate (BBP)	85-68-7	X	testing required	2	-	-
Dibutylphthalate (DBP)	84-74-2	X	testing required	2	-	-
Diethylphthalate (DEP)	84-66-2	X	testing required	2	-	-
Dimethylphthalate (DMP)	131-11-3	X	-	2	-	-
Di-(2-ethylhexyl)phthalate (DEHP)	117-81-7	X	testing required	2	-	-
Di-(2-methoxyethyl)phthalate (DMEP)	117-82-8	X	testing required	2	-	-
Di-C6-8-branched alkylphthalates (DIHP)	71888-89-6	X	testing required	2	-	-
Di-C7-11-branched alkylphthalates (DHNUP)	68515-42-4	X	testing required	2	-	-
Dicyclohexylphthalate (DCHP)	84-61-7	X	testing required	2	-	-
Dihexylphthalates, branched and linear (DHxP)	68515-50-4	X	testing required	2	-	-
Di-iso-butylphthalate (DIBP)	84-69-5	X	testing required	2	-	-
Di-iso-hexylphthalate (DIHxP)	71850-09-4	X	-	2	-	-
Di-iso-octylphthalate (DIOP)	27554-26-3	X	testing required	2	-	-
Di-iso-nonylphthalate (DINP)	28553-12-0 68515-48-0	X X	testing required	2	-	-

X Use restricted



STeP

Substance	CAS No.	MRSL	Wastewater		Sludge	
			Limit Values [µg/l]	Reporting Limit [µg/l]	Limit Values [mg/kg]	Reporting Limit [mg/kg]
Di-iso-decylphthalate (DIDP)	26761-40-0 68515-49-1	X X	testing required	2	-	-
Di-n-propylphthalate (DPP)	131-16-8	X	testing required	2	-	-
Di-n-hexylphthalate (DHP)	84-75-3	X	testing required	2	-	-
Di-n-octylphthalate (DNOP)	117-84-0	X	testing required	2	-	-
Di-n-nonylphthalate (DNP)	84-76-4	X	testing required	2	-	-
Di-n-pentylphthalate (DPP)	131-18-0	X	testing required	2	-	-
Di-iso-pentylphthalate (DPP)	605-50-5	X	testing required	2	-	-
Iso-pentyl-n-pentylphthalate (DPP)	776297-69-9	X	-	2	-	-
Dipentylphthalate, branched and linear (DPP)	84777-06-0	X	testing required	2	-	-
1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters	68515-51-5	X	-	-	-	-
1,2-benzenedicarboxylic acid, mixed decyl-, and hexyl, and octylesters	68648-93-1	X	-	-	-	-
<b>3. Brominated, chlorinated and other flame retardants</b>						
Polybromobiphenyls (PBBs)	59536-65-1	X	testing required	sum 5	-	-
Monobromobiphenyls (MonoBB)	Various	X	-	1	-	-
Dibromobiphenyls (DiBB)	Various	X	-	1	-	-
Tribromobiphenyls (TriBB)	Various	X	-	1	-	-
Tetrabromobiphenyls (TetraBB)	Various	X	-	1	-	-
Pentabromobiphenyls (PentaBB)	Various	X	-	1	-	-
Hexabromobiphenyls (HexaBB)	Various	X	-	1	-	-
Heptabromobiphenyls (HeptaBB)	Various	X	-	1	-	-
Octabromobiphenyls (OctaBB)	Various	X	-	1	-	-
Nonabromobiphenyls (NonaBB)	Various	X	-	1	-	-
Decabromobiphenyl (DecaBB)	13654-09-6	X	-	1	-	-
Polybrominated diphenyl ethers (PBDEs)	Various	X	-	sum 5	-	-
Monobromodiphenylethers (MonoBDEs)	Various	X	-	1	-	-
Dibromodiphenylethers (DiBDEs)	Various	X	-	1	-	-
Tribromodiphenylethers (TriBDEs)	Various	X	-	1	-	-
Tetrabromodiphenylethers (TetraBDEs)	Various 40088-47-9	X X	-	1	-	-
Pentabromodiphenylethers (PentaBDEs)	Various 32534-81-9	X X	- testing required	1	- -	-
Hexabromodiphenylethers (HexaBDEs)	Various 36483-60-0	X X	-	1	-	-

X Use restricted



STeP

Substance	CAS No.	MRSL	Wastewater		Sludge	
			Limit Values [µg/l]	Reporting Limit [µg/l]	Limit Values [mg/kg]	Reporting Limit [mg/kg]
Heptabromodiphenylethers (HeptaBDEs)	Various 68928-80-3	X X	-	1	-	-
Octabromodiphenylethers (OctaBDEs)	Various 32536-52-0	X X	-	1	-	-
Nonabromodiphenylethers (NonaBDEs)	Various 63936-56-1	X X	-	1	-	-
Decabromodiphenylether (DecaBDE)	1163-19-5	X	testing required	1	-	-
Tri-(2,3-dibromopropyl)phosphate (TRIS)	126-72-7	X	testing required	1	-	-
Tris(2-chlorethyl)phosphate (TCEP)	115-96-8	X	testing required	1	-	-
Hexabromocyclododecane (HBCDD) and all main diastereomeres identified (alpha-, beta-, gamma-)	3194-55-6	X	testing required	1	-	-
	134237-50-6	X	-	-	-	-
	134237-51-7	X	-	-	-	-
	134237-52-8	X	-	-	-	-
	25637-99-4	X	-	-	-	-
Tetrabromo-bisphenol A (TBBA)	79-94-7	X	testing required	1	-	-
Bis(2,3-dibromopropyl)phosphate (BIS)	5412-25-9	X	testing required	1	-	-
2,2-Bis(bromomethyl)-1,3-propanediol (BBMP)	3296-90-0	X	testing required	1	-	-
<b>Other Flame retardants</b>						
Tris(1,3-dichlorisopropyl)phosphat (TDCPP)	13674-87-8	X	testing required	1	-	-
Tris-(2-chloro-1-methylethyl)phosphate (TCPP)	13674-84-5	X	testing required	25	-	-
Tris-(aziridiny)-phosphin oxide (TEPA)	545-55-1	X	testing required	1	-	-
Borate, zinc salt	12767-90-7	X	testing required	100 <sup>7</sup>	-	-
Boric acid	10043-35-3	X	testing required	100 <sup>7</sup>	-	-
	11113-50-1	X	testing required	100 <sup>7</sup>	-	-
Diboron trioxide	1303-86-2	X	testing required	100 <sup>7</sup>	-	-
Disodium tetraborate, anhydrous	1303-96-4	X	testing required	100 <sup>7</sup>	-	-
	1330-43-4	X	testing required	100 <sup>7</sup>	-	-
	12179-04-3	X	testing required	100 <sup>7</sup>	-	-
Disodium octaborate	12008-41-2	X	testing required	100 <sup>7</sup>	-	-
Tetraboron disodium heptaoxide, hydrate	12267-73-1	X	testing required	100 <sup>7</sup>	-	-
Dibromopropylether	21850-44-2	X	testing required	25	-	-
Flame retardants which contain toxic metals like antimony or arseni	Various	X	-	-	-	-
Antimony trioxide	1309-64-4	X	-	-	-	-
Antimony pentoxide	1314-60-9	X	-	-	-	-

<sup>7</sup> determined as total boron



STeP

Substance	CAS No.	MRSL	Wastewater		Sludge	
			Limit Values [µg/l]	Reporting Limit [µg/l]	Limit Values [mg/kg]	Reporting Limit [mg/kg]
Tri-o-cresyl phosphate	78-30-8	X	-	1	-	-
Trixylyl phosphate	25155-23-1	X	-	1	-	-
<b>4. Hazardous colorants</b>						
<b>Arylamines (released from Azo colorants or in free manner)</b>						
4-Aminobiphenyl; 4-Aminodiphenyl	92-67-1	X	testing required	0.1	-	-
Benzidine	92-87-5	X	testing required	0.1	-	-
4-Chloro-o-toluidine	95-69-2	X	testing required	0.1	-	-
2-Naphthylamine	91-59-8	X	testing required	0.1	-	-
o-Aminoazotoluene	97-56-3	X	testing required	0.1	-	-
2-Amino-4-nitrotoluene	99-55-8	X	testing required	0.1	-	-
4-Chloroaniline	106-47-8	X	testing required	0.1	-	-
2,4-Diaminoaniline	615-05-4	X	testing required	0.1	-	-
4,4'-Diaminodiphenylmethane	101-77-9	X	testing required	0.1	-	-
3,3'-Dichlorobenzidine	91-94-1	X	testing required	0.1	-	-
3,3'-Dimethoxybenzidine	119-90-4	X	testing required	0.1	-	-
3,3'-Dimethylbenzidine	119-93-7	X	testing required	0.1	-	-
4,4'-Methylenedi-o-toluidine	838-88-0	X	testing required	0.1	-	-
p-Cresidine; 6-Methoxy-m-toluidine	120-71-8	X	testing required	0.1	-	-
4,4'-Methylene-bis-(2-chloroaniline)	101-14-4	X	testing required	0.1	-	-
4,4'-Oxydianiline	101-80-4	X	testing required	0.1	-	-
4,4'-Thiodianiline	139-65-1	X	testing required	0.1	-	-
o-Toluidine	95-53-4	X	testing required	0.1	-	-
2,4-Toluyldiamine	95-80-7	X	testing required	0.1	-	-
2,4,5-Trimethylaniline	137-17-7	X	testing required	0.1	-	-
o-Anisidine (2-Methoxyaniline)	90-04-0	X	testing required	0.1	-	-
4-Aminoazobenzene	60-09-3	X	testing required	0.1	-	-
2,4-Xylydine	95-68-1	X	testing required	0.1	-	-

X Use restricted



STeP

Substance	CAS No.	MRSL	Wastewater		Sludge	
			Limit Values [µg/l]	Reporting Limit [µg/l]	Limit Values [mg/kg]	Reporting Limit [mg/kg]
2,6-Xylidine	87-62-7	X	testing required	0.1	-	-
2,5-Diaminotoluene / 2-Methyl-p-phenyldiamine	615-50-9	X	-	-	-	-
4-Ethoxyaniline / p-Phenetidine	156-43-4	X	-	-	-	-
3,3-Diaminobenzidin	91-95-2	X	-	-	-	-
Aniline	62-53-3	X	-	-	-	-
<b>Hazardous colorants (Carcinogenic, allergenic, or banned for other reasons)</b>						
C.I. Acid Red 26 (C.I. 16150)	3761-53-3	X	testing required	1	-	-
C.I. Acid Red 114	6459-94-5	X	-	1	-	-
C.I. Acid Violet 49	1694-09-3	X	testing required	1	-	-
C.I. Basic Blue 26	2580-56-5	X	testing required	1	-	-
C.I. Basic Green 4 (chloride)	569-64-2	X	testing required	sum 1	-	-
C.I. Basic Green 4 (free)	10309-95-2	X				
C.I. Basic Green 4 (oxalate)	2437-29-8 18015-76-4	X				
C.I. Basic Red 9 (C.I. 42500)	569-61-9	X	testing required	1	-	-
C.I. Basic Violet 1	8004-87-3	X	-	1	-	-
C.I. Basic Violet 3	548-62-9	(X) <sup>6</sup>	-	1	-	-
C.I. Basic Violet 14 (C.I. 42510)	632-99-5	X	-	1	-	-
C.I. Direct Black 38 (C.I. 30235)	1937-37-7	X	testing required	1	-	-
C.I. Direct Blue 6 (C.I. 22610)	2602-46-2	X	testing required	1	-	-
C.I. Direct Blue 15	2429-74-5	X	-	1	-	-
C.I. Direct Blue 218	28407-37-6	X	-	1	-	-
C.I. Direct Brown 95	16071-86-6	X	-	1	-	-
C.I. Direct Red 28 (C.I. 22120)	573-58-0	X	testing required	1	-	-
C.I. Disperse Blue 1 (C.I. 64500)	2475-45-8	X	testing required	1	-	-
C.I. Disperse Blue 3 (C.I. 61505)	2475-46-9	X	testing required	1	-	-
C.I. Disperse Blue 7 (C.I. 62500)	3179-90-6	X	testing required	1	-	-
C.I. Disperse Blue 26 (C.I. 63305)	3860-63-7	X	testing required	1	-	-
C.I. Disperse Blue 35 (mixture)	12222-75-2	X	testing required	1	-	-
C.I. Disperse Blue 35 (Component 1)	56524-77-7	X	testing required	1	-	-
C.I. Disperse Blue 35 (Component 2)	56524-76-6	X	-	1	-	-

(X)<sup>6</sup> If Michlers Ketone/Base is present than more than >= 0.1%  
 X Use restricted



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Substance	CAS No.	MRSL	Wastewater		Sludge	
			Limit Values [µg/l]	Reporting Limit [µg/l]	Limit Values [mg/kg]	Reporting Limit [mg/kg]
C.I. Disperse Blue 102	12222-97-8 (69766-79-6)	X	testing required	1	-	-
C.I. Disperse Blue 106	12223-01-7 (68516-81-4)	X	testing required	1	-	-
C.I. Disperse Blue 124	61951-51-7	X	testing required	1	-	-
C.I. Disperse Brown 1	23355-64-8	X	testing required	1	-	-
C.I. Disperse Orange 1 (C.I. 11080)	2581-69-3	X	testing required	1	-	-
C.I. Disperse Orange 3 (C.I. 11005)	730-40-5	X	testing required	1	-	-
C.I. Disperse Orange 11 (C.I. 60700)	82-28-0	X	testing required	1	-	-
C.I. Disperse Orange 37 (=59 / =76) (C.I. 11132)	13301-61-6	X	testing required	1	-	-
C.I. Disperse Orange 149	85136-74-9	X	-	1	-	-
C.I. Disperse Red 1 (C.I. 11110)	2872-52-8	X	testing required	1	-	-
C.I. Disperse Red 11 (C.I. 62015)	2872-48-2	X	testing required	1	-	-
C.I. Disperse Red 17 (C.I. 11210)	3179-89-3	X	testing required	1	-	-
C.I. Disperse Yellow 1 (C.I. 10345)	119-15-3	X	testing required	1	-	-
C.I. Disperse Yellow 3 (C.I. 11855)	2832-40-8	X	testing required	1	-	-
C.I. Disperse Yellow 9 (C.I. 10375)	6373-73-5	X	testing required	1	-	-
C.I. Disperse Yellow 23 (C.I. 26070)	6250-23-3	X	-	1	-	-
C.I. Disperse Yellow 39	12236-29-2	X	testing required	1	-	-
C.I. Basic Yellow 2/Solvent Yellow 34	2465-27-2	X	testing required	-	-	-
C.I. Disperse Yellow 49	54824-37-2	X	testing required	1	-	-
C.I. Pigment Red 104 (Lead chromate molybdate sulphate red; C.I. 77605)	12656-85-8	X	-	-	-	-
C.I. Pigment Yellow 34 (Lead sulfochromate yellow; C.I. 77603)	1344-37-2	X	-	-	-	-
C.I. Solvent Blue 4	6786-83-0	(X) <sup>6</sup>	-	1	-	-
C.I. Solvent Violet 8	561-41-1	(X) <sup>6</sup>	-	1	-	-
C.I. Solvent Yellow 1 (p-Aminoazobenzol (pure); Aniline yellow)	60-09-3	X	-	1	-	-
C.I. Solvent Yellow 2 (C.I. 11020)	60-11-7	X	-	1	-	-
C.I. Solvent Yellow 3 (o-Aminoazotoluene (pure))	97-56-3	X	testing required	1	-	-
C.I. Solvent Yellow 14	842-07-9	X	-	1	-	-

(X)<sup>6</sup> If Michlers Ketone/Base is present than more than >= 0.1%



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Substance	CAS No.	MRSL	Wastewater		Sludge	
			Limit Values [µg/l]	Reporting Limit [µg/l]	Limit Values [mg/kg]	Reporting Limit [mg/kg]
Navy blue, index no. 611-070-00-2 (Component 1 & 2)	118685-33-9	X	testing required	500	-	-
Colorants containing the heavy metals lead or cadmium	Various	X	-	-	-	-
Colorants with an acute toxicity LD50 < 100 mg/kg	Various	X	-	-	-	-
<b>5. Organotin compounds</b>						
Dibutyltin (DBT)	Various 683-18-1	X X	testing required	0.01	-	-
Dibutyltin hydrogen borate	75113-37-0	X	-	-	-	-
Diocetyl tin (DOT)	Various	X	testing required	0.01	-	-
Diphenyltin (DPHT)	Various 1011-95-6	X X	testing required	0.01	-	-
Dipropyltin	Various 867-36-7	X	testing required	0.01	-	-
Monobutyltin (MBT)	Various	X	testing required	0.01	-	-
Monooctyltin (MOT)	Various	X	testing required	0.01	-	-
Tetrabutyltin (TeBT)	Various 1461-25-2	X	testing required	0.01	-	-
Tetraethyltin (TeET)	597-64-8	X	testing required	0.01	-	-
Tetraoctyltin compounds (TeOT)	Various	X	testing required	0.01	-	-
Tributyltin (TBT)	Various	X	testing required	0.01	-	-
Bis(tributyltin) oxide (TBTO)	56-35-9	X	-	-	-	-
Tricyclohexyltin (TCyHT)	Various	X	testing required	0.01	-	-
Trimethyltin (TMT)	Various	X	testing required	0.01	-	-
Triocetyl tin (TOT)	Various	X	testing required	0.01	-	-
Triphenyltin (TPHT)	Various 668-34-8	X X	testing required	0.01	-	-
Tripropyltin (TPT)	Various	X	testing required	0.01	-	-
Dimethyltin	753-73-1	X	testing required	0.01	-	-
Monophenyltin	1124-19-2	X	testing required	0.01	-	-
Monomethyltin	993-16-8	X	testing required	0.01	-	-
<b>6. PFC's, Per- and polyfluorinated compounds</b>						
PFAS (according to OECD)	Various	X	-	-	-	-
Perfluorooctane sulfonic acid and sulfonates (PFOS)	Various 1763-23-1	X X	10	0.01	-	-

X Use restricted



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Substance	CAS No.	MRSL	Wastewater		Sludge	
			Limit Values [µg/l]	Reporting Limit [µg/l]	Limit Values [mg/kg]	Reporting Limit [mg/kg]
Perfluorooctane sulfonamide (PFOSA)	754-91-6	X	-	0.1	-	-
Perfluorooctane sulfonfluoride (PFOSF/POSF)	307-35-7	X	-	0.01	-	-
N-Methyl perfluorooctane sulfonamide (N-Me-FOSA)	31506-32-8	X	-	0.1	-	-
N-Ethyl perfluorooctane sulfonamide (N-Et-FOSA)	4151-50-2	X	-	0.1	-	-
N-Methyl perfluorooctane sulfonamide ethanol (N-Me-FOSE)	24448-09-7	X	-	0.1	-	-
N-Ethyl perfluorooctane sulfonamide ethanol (N-Et-FOSE)	1691-99-2	X	-	0.1	-	-
Perfluoroheptanoic acid (PFHpA) and salts	Various 375-85-9	X X	-	0.01	-	-
Perfluorooctanoic acid (PFOA) and salts	Various 335-67-1	X X	50	0.01	-	-
Perfluorononanoic acid (PFNA) and salts	Various 375-95-1	X X	-	0.01	-	-
Perfluorodecanoic acid (PFDA) and salts	Various 335-76-2	X X	-	0.01	-	-
Henicosafleuroundecanoic acid (Perfluoroundecanoic acid; PFUDA) and salts	Various 2058-94-8	X X	-	0.01	-	-
Tricosafleuroundecanoic acid (Perfluorododecanoic acid; PFDoA) and salts	Various 307-55-1	X X	-	0.01	-	-
Pentacosafleurotridecanoic acid (Perfluorotridecanoic acid; PFTTrDA) and salts	Various 72629-94-8	X X	-	0.01	-	-
Heptacosafleurotetradecanoic acid (Perfluorotetradecanoic acid; PFTeDA) and salts	Various 376-06-7	X X	-	0.01	-	-
Perfluorobutanoic acid (PFBA) and salts	Various 375-22-4	X X	-	0.01	-	-
Perfluoropentanoic acid (PFPeA) and salts	Various 2706-90-3	X X	-	0.01	-	-
Perfluorohexanoic acid (PFHxA) and salts	Various 307-24-4	X X	-	0.01	-	-
Perfluoro(3,7-dimethyloctanoic acid) (PF-3,7-DMOA) and salts	Various 172155-07-6	X X	-	0.01	-	-
Perfluorobutane sulfonic acid (PFBS) and salts	Various 375-73-5 59933-66-3	X X X	-	0.01	-	-
Perfluorohexane sulfonic acid (PFHxS) and salts	Various 355-46-4	X X	-	0.01	-	-
Perfluoroheptane sulfonic acid (PFHpS) and salts	Various 375-92-8	X X	-	0.01	-	-
Henicosafleurodecane sulfonic acid (Perfluorodecane sulfonic acid, PFDS) and salts	Various 335-77-3	X X	-	0.01	-	-
7H-Perfluoroheptaonic acid (7HPFHpA) and salts	Various 1546-95-8	X X	-	0.01	-	-
2H,2H,3H,3H-Perfluoroundecanoic acid (44HPFUnA) and salts	Various 34598-33-9	X X	-	0.01	-	-
1H,1H,2H,2H-Perfluorooctane sulfonic acid (1H,1H,2H,2H-PFOS) and salts	Various 27619-97-2	X X	-	0.01	-	-
1H,1H,2H,2H-perfluoro-1-hexanol (4:2 FTOH)	2043-47-2	X	-	1	-	-

X Use restricted





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1H,1H,2H,2H-perfluoro-1-octanol (6:2 FTOH)	647-42-7	X	testing required	1	-	-
1H,1H,2H,2H-perfluoro-1-decanol (8:2 FTOH)	678-39-7	X	testing required	1	-	-
1H,1H,2H,2H-perfluoro-1-dodecanol (10:2 FTOH)	865-86-1	X	-	1	-	-
1H,1H,2H,2H-perfluorooctylacrylate (6:2 FTAC)	17527-29-6	X	-	1	-	-
1H,1H,2H,2H-perfluorodecylacrylate (8:2 FTAC)	27905-45-9	X	-	1	-	-
1H,1H,2H,2H-perfluorododecylacrylate (10:2 FTAC)	17741-60-5	X	-	1	-	-
<b>7. Chlorobenzenes and Chlorotoluenes</b>						
Chlorobenzene	108-90-7	X	testing required	0.1	-	-
Dichlorobenzenes	25321-22-6	X	-	-	-	-
1,2-Dichlorobenzene	95-50-1	X	testing required	0.1	-	-
1,3-Dichlorobenzene	541-73-1	X	testing required	0.1	-	-
1,4-Dichlorobenzene	106-46-7	X	testing required	0.1	-	-
Trichlorobenzenes	12002-48-1	X	-	-	-	-
1,2,3-Trichlorobenzene	87-61-6	X	testing required	0.1	-	-
1,2,4-Trichlorobenzene	120-82-1	X	testing required	0.1	-	-
1,3,5-Trichlorobenzene	108-70-3	X	testing required	0.1	-	-
Tetrachlorobenzene	12408-10-5	X	-	-	-	-
1,2,3,4-Tetrachlorobenzene	634-66-2	X	testing required	0.1	-	-
1,2,3,5-Tetrachlorobenzene	634-90-2	X	testing required	0.1	-	-
1,2,4,5-Tetrachlorobenzene	95-94-3	X	testing required	0.1	-	-
Pentachlorobenzenes	608-93-5	X	testing required	0.1	-	-
Hexachlorobenzene	118-74-1	X	testing required	0.1	-	-
<b>Chlorinated toluenes (as solvents/biocides, from dyes production, chemical intermediates, antifelting)</b>						
Chlorotoluenes	Various	X	-	-	-	-
2-Chlorotoluene	95-49-8	X	testing required	0.1	testing required	0.2
3-Chlorotoluene	108-41-8	X	testing required	0.1	testing required	0.2
4-Chlorotoluene	106-43-4	X	testing required	0.1	testing required	0.2
Dichlorotoluenes	Various	X	-	-	-	-
2,3-Dichlorotoluene	32768-54-0	X	testing required	0.1	testing required	0.2

X Use restricted



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Substance	CAS No.	MRSL	Wastewater		Sludge	
			Limit Values [µg/l]	Reporting Limit [µg/l]	Limit Values [mg/kg]	Reporting Limit [mg/kg]
2,4-Dichlorotoluene	95-73-8	X	testing required	0.1	testing required	0.2
2,5-Dichlorotoluene	19398-61-9	X	testing required	0.1	testing required	0.2
2,6-Dichlorotoluene	118-69-4	X	testing required	0.1	testing required	0.2
3,4-Dichlorotoluene	95-75-0	X	testing required	0.1	testing required	0.2
3,5-Dichlorotoluene	25186-47-4	X	testing required	0.1	testing required	0.2
alpha, alpha-Dichlorotoluene	98-87-3	X	-	-	-	-
Trichlorotoluene	Various	X	-	-	-	-
2,3,4-Trichlorotoluene	7359-72-0	X	testing required	0.1	testing required	0.2
2,3,6-Trichlorotoluene	2077-46-5	X	testing required	0.1	testing required	0.2
2,4,5-Trichlorotoluene	6639-30-1	X	testing required	0.1	testing required	0.2
2,4,6-Trichlorotoluene	23749-65-7	X	testing required	0.1	testing required	0.2
3,4,5-Trichlorotoluene	21472-86-6	X	testing required	0.1	testing required	0.2
alpha, alpha, alpha-Trichlorotoluene	98-07-7	X	-	0.1	-	0.2
alpha,2,4-Trichlorotoluene	94-99-5	X	-	0.1	-	0.2
alpha,2,6-Trichlorotoluene	2014-83-7	X	-	0.1	-	0.2
alpha,3,4-Trichlorotoluene	102-47-6	X	-	0.1	-	0.2
Tetrachlorotoluene	Various	X	-	-	-	-
alpha,alpha,2,6-Tetrachlorotoluene	81-19-6	X	-	0.1	-	0.2
alpha,alpha,alpha,2-Tetrachlorotoluene	2136-89-2	X	-	0.1	-	0.2
alpha,alpha,alpha,4-Tetrachlorotoluene	5216-25-1	X	-	0.1	-	0.2
2,3,4,5-Tetrachlorotoluene	76057-12-0	X	testing required	0.1	testing required	0.2
2,3,5,6-Tetrachlorotoluene	29733-70-8	X	testing required	0.1	testing required	0.2
2,3,4,6-Tetrachlorotoluene	875-40-1	X	testing required	0.1	testing required	0.2
2,3,4,5,6-Pentachlorotoluene	877-11-2	X	testing required	0.1	testing required	0.2
<b>8. Chlorinated and other solvents</b>						
Dichloromethane	75-09-2	X	testing required	1	-	-
Trichloromethane (Chloroform)	67-66-3	X	-	1	-	-
Tetrachloromethane (Carbontetrachloride)	56-23-5	X	-	1	-	-
Chlorinated ethanes and ethenes	Various	X	-	1	-	-
1,1-Dichloroethane	75-34-3	X	-	1	-	-
1,2-Dichloroethane	107-06-2	X	testing required	1	-	-
1,1,1-Trichloroethane	71-55-6	X	-	1	-	-



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Substance	CAS No.	MRSL	Wastewater		Sludge	
			Limit Values [µg/l]	Reporting Limit [µg/l]	Limit Values [mg/kg]	Reporting Limit [mg/kg]
1,1,2-Trichloroethane	79-00-5	X	-	1	-	-
1,1,1,2-Tetrachloroethane	630-20-6	X	-	1	-	-
1,1,2,2-Tetrachloroethane	79-34-5	X	-	1	-	-
Pentachloroethane	76-01-7	X	-	1	-	-
1,1-Dichloroethylene	75-35-4	X	-	1	-	-
1,2-Dichloroethylene, cis and trans	540-59-0	X	-	1	-	-
	156-60-5	X				
	156-59-2	X				
Trichloroethylene	79-01-6	X	testing required	1	-	-
Tetrachloroethylene	127-18-4	X	testing required	1	-	-
1,2,3-Trichloropropane	96-18-4	X	-	1	-	-
Hexachlorobutadiene	87-68-3	X	-	1	-	-
<b>Other VOC's</b>						
N-ethyl-2-pyrrolidone	2687-91-4	X	-	-	-	-
Methyl-ethyl ketone	78-93-3	X	-	10	-	-
Ethylbenzene	100-41-4	X	-	1	-	-
Xylene	1330-20-7	X	testing required	1	-	-
o-Xylene	95-47-6	X	-	1	-	-
m-Xylene	108-38-3	X	-	1	-	-
p-Xylene	106-42-3	X	-	1	-	-
Cyclohexanone	108-94-1	X	-	10	-	-
2-Ethoxyethyl acetate	111-15-9	X	testing required	10	-	-
Acetophenone	98-86-2	X	-	10	-	-
2-Phenyl-2-propanol	617-94-7	X	-	10	-	-
Bis(2-methoxyethyl) ether	111-96-6	X	testing required	1	-	-
Styrene	100-42-5	X	-	1	-	-
Benzene	71-43-2	X	testing required	1	-	-
Toluene	108-88-3	X	testing required	1	-	-
1-Methyl-2-pyrrolidone (NMP)	872-50-4	X	-	10	-	-
N,N-Dimethylacetamide (DMAc)	127-19-5	X	-	10	-	-
N,N-Dimethylformamide (DMF)	68-12-2	X	testing required	10	-	-
2-Ethoxyethanol	110-80-5	X	testing required	50	-	-
Ethylene glycol dimethyl ether (EGDME)	110-71-4	X	testing required	50	-	-
2-Methoxyethanol	109-86-4	X	testing required	50	-	-
2-Methoxyethylacetate	110-49-6	X	testing required	50	-	-

X Use restricted



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Substance	CAS No.	MRSL	Wastewater		Sludge	
			Limit Values [µg/l]	Reporting Limit [µg/l]	Limit Values [mg/kg]	Reporting Limit [mg/kg]
2-Methoxypropylacetate	70657-70-4	X	testing required	50	-	-
Triethylene glycol dimethyl ether (TEGDME, triglyme)	112-49-2	X	testing required	50	-	-
Phenol	108-95-2	X	Please see limit values in table 5.1	-	-	-
Formamide	75-12-7	X	-	-	-	-
Other aromatic hydrocarbons	Various	X	-	-	-	-
<b>9. Chlorophenols</b>						
Pentachlorophenol (PCP)	87-86-5	X	testing required	0.5	-	-
Tetrachlorophenol (TeCP)	25167-83-3	X	-	-	-	-
2,3,4,5-Tetrachlorophenol	4901-51-3	X	testing required	0.5	-	-
2,3,4,6-Tetrachlorophenol	58-90-2	X	testing required	0.5	-	-
2,3,5,6-Tetrachlorophenol	935-95-5	X	testing required	0.5	-	-
Trichlorophenol (TrCP)	25167-82-2	X	-	-	-	-
2,3,4-Trichlorophenol	15950-66-0	X	testing required	0.5	-	-
2,3,5-Trichlorophenol	933-78-8	X	testing required	0.5	-	-
2,3,6-Trichlorophenol	933-75-5	X	testing required	0.5	-	-
2,4,5-Trichlorophenol	95-95-4	X	testing required	0.5	-	-
2,4,6-Trichlorophenol	88-06-2	X	testing required	0.5	-	-
3,4,5-Trichlorophenol	609-19-8	X	testing required	0.5	-	-
Dichlorophenols (DiCP)	25167-81-1	X	-	-	-	-
2,3-Dichlorophenol	576-24-9	X	testing required	0.5	-	-
2,4-Dichlorophenol	120-83-2	X	testing required	0.5	-	-
2,5-Dichlorophenol	583-78-8	X	testing required	0.5	-	-
2,6-Dichlorophenol	87-65-0	X	testing required	0.5	-	-
3,4-Dichlorophenol	95-77-2	X	testing required	0.5	-	-
3,5-Dichlorophenol	591-35-5	X	testing required	0.5	-	-
Monochlorophenols	Various	X	-	-	-	-
2-Chlorophenol	95-57-8	X	testing required	0.5	-	-
3-Chlorophenol	108-43-0	X	testing required	0.5	-	-

X Use restricted



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Substance	CAS No.	MRSL	Wastewater		Sludge	
			Limit Values [µg/l]	Reporting Limit [µg/l]	Limit Values [mg/kg]	Reporting Limit [mg/kg]
4-Chlorophenol	106-48-9	X	testing required	0.5	-	-
Salts and Esters from the above mentioned Chlorophenols	Various	X	-	-	-	-
<b>10. Chlorinated paraffins</b>						
Short-chain chlorinated paraffins (SCCP), C10-13	85535-84-8	X	testing required	5	-	-
Medium-chain chlorinated paraffins (MCCP), C14-17	85535-85-9	X	testing required	5	-	-
<b>11. Heavy metals and their compounds</b>						
Antimony (Sb)	7440-36-0 et al.	X	100	1	testing required	2
Arsenic (As)	7440-38-2 et al.	X	50	1	testing required	2
Lead (Pb)	7439-92-1 et al.	X	100	1	testing required	2
Cadmium (Cd)	7440-43-9 et al.	X	100	0.1	testing required	2
Chromium (Cr)	7440-47-3 et al.	(X) <sup>1</sup>	200	1	testing required	2
Cr(VI)	18540-29-9 et al.	X	50	1	testing required	2
Cobalt (Co)	7440-48-4 et al.	(X) <sup>1</sup>	50	1	testing required	2
Copper (Cu)	7440-50-8 et al.	(X) <sup>1</sup>	1000	1	testing required	2
Nickel (Ni)	7440-02-0 et al.	(X) <sup>1</sup>	200	1	testing required	2
Mercury (Hg)	7439-97-6 et al.	X	10	0.05	testing required	0.2
Zinc (Zn)	7440-66-6 et al.	(X) <sup>1</sup>	5000	5	testing required	2
Manganese (Mn)	7439-96-5 et al.	(X) <sup>1</sup>	-	1	-	2
Silver (Ag)	7440-22-4 et al.	X	100	1	testing required	2
<b>12. Polycyclic aromatic hydrocarbons (PAH's)</b>						
Acenaphthene	83-32-9	X	testing required	1	testing required	0.2
Acenaphthylene	208-96-8	X	testing required	1	testing required	0.2
Anthracene	120-12-7	X	testing required	1	testing required	0.2
Benza[a]anthracene	56-55-3	X	testing required	1	testing required	0.2
Benza[a]pyrene	50-32-8	X	testing required	1	testing required	0.2

(X)<sup>1</sup> Use accepted under certain conditions (e.g. current technical limitations, no substitute available). Use need to be controlled and monitored (e.g. by wastewater testing)

X Use restricted



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Substance	CAS No.	MRSL	Wastewater		Sludge	
			Limit Values [µg/l]	Reporting Limit [µg/l]	Limit Values [mg/kg]	Reporting Limit [mg/kg]
Benzo[b]fluoranthene	205-99-2	X	testing required	1	testing required	0.2
Benzo[e]pyrene	192-97-2	X	testing required	1	testing required	0.2
Benzo[ghi]perylene	191-24-2	X	testing required	1	testing required	0.2
Benzo[j]fluoranthene	205-82-3	X	testing required	1	testing required	0.2
Benzo[k]fluoranthene	207-08-9	X	testing required	1	testing required	0.2
Chrysene	218-01-9	X	testing required	1	testing required	0.2
Cyclopenta[c,d]pyrene	27208-37-3	X	-	-	-	-
Dibenzo[a,h]anthracene	53-70-3	X	testing required	1	testing required	0.2
Dibenzo[a,e]pyrene	192-65-4	X	-	-	-	-
Dibenzo[a,h]pyrene	189-64-0	X	-	-	-	-
Dibenzo[a,i]pyrene	189-55-9	X	-	-	-	-
Dibenzo[a,l]pyrene	191-30-0	X	-	-	-	-
Fluoranthene	206-44-0	X	testing required	1	testing required	0.2
Fluorene	86-73-7	X	testing required	1	testing required	0.2
Indeno[1,2,3-cd]pyrene	193-39-5	X	testing required	1	testing required	0.2
1-Methylpyrene	2381-21-7	X	-	-	-	-
Naphthalene	91-20-3	X	testing required	1	testing required	0.2
Phenanthrene	85-01-8	X	testing required	1	testing required	0.2
Pyrene	129-00-0	X	testing required	1	testing required	0.2
<b>13. Surfactants, wetting agents (other than APEO's)</b>						
DHTDMAC (di hydrogenated tallow)dimethylammoniumchlorid)	61789-80-8	X	-	-	-	-
DSDMAC (distearyldimethylammoniumchlorid)	107-64-2	X	-	-	-	-
DTDMAC (bis(hydrogenated tallow alkyl) dimethylammoniumchlorid)	68783-78-8	X	-	-	-	-
EDTA	Various	X	-	-	-	-
DTPA	67-43-6	X	-	-	-	-
Tetrapropylbenzolsulfonat (TPS) , sodium salt	11067-82-6	X	-	-	-	-
with > 0.5 % phosphorus	Various	X	-	-	-	-
containing phosphates	Various	X	-	-	-	-
<b>14. Other substances</b>						
Aminoethylethanolamine (AEEA)	111-41-1	X	testing required	500	-	-
Aminoethylethanolamine (AEEA) Derivatives	Various	X	-	-	-	-
Asbestos	Various	X	-	-	-	-



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Substance	CAS No.	MRSL	Wastewater		Sludge	
			Limit Values [µg/l]	Reporting Limit [µg/l]	Limit Values [mg/kg]	Reporting Limit [mg/kg]
Asbestos (Fb)	1332-21-4	X	-	-	-	-
Bisphenol A (P)	80-05-7	X	testing required	10	-	-
Bisphenol B (P)	77-40-7	X	-	-	-	-
Carbon disulfide	75-15-0	X	-	-	-	-
C,C'-azodiformamide (ADCA; Diazene-1,2-dicarboxamide)	123-77-3	X	-	-	-	-
o-Cresol	95-48-7	X	testing required	1	-	-
m-Cresol	108-39-4	X	testing required	1	-	-
p-Cresol	106-44-5	X	testing required	1	-	-
Dioxins and furanes	Various	X	-	-	-	-
Dimethylfumarate (DMFu)	624-49-7	X	-	-	-	-
6,6'-di-tert-butyl-2,2'-methylene-di-p-cresol	119-47-1	X	-	-	-	-
D4; Octamethylcyclotetrasiloxane	556-67-2	X	-	-	-	-
D5; Decamethylcyclopentasiloxane	541-02-6	X	-	-	-	-
D6; Dodecamethylcyclohexasiloxane	540-97-6	X	-	-	-	-
N-(Hydroxymethyl)acrylamide	924-42-5	X	-	-	-	-
2-Mercaptobenzothiazole (2-MBT)	149-30-4	X	-	-	-	-
N-Methylaniline	100-61-8	X	-	-	-	-
Monomethyldibromodiphenylmethane	99688-47-8	X	-	-	-	-
Monomethyldichlorodiphenylmethane (Ugilec 121)	81161-70-8	X	-	-	-	-
Monomethyltetrachlorodiphenylmethane	76253-60-6	X	-	-	-	-
Halogenated Naphthalenes	Various	X	-	-	-	-
5-t-butyl-2,4,6-trinitro-m-xylol (Musk Xylol) (perfuming)	81-15-2	X	-	-	-	-
Permethrin	Various 52645-53-1	(X) <sup>2</sup>	testing required	500	-	-
o-Phenylphenol (OPP)	90-43-7	(X) <sup>3</sup>	testing required	100	-	-
Pesticides / Fumigants for storing and transport conservation (see OEKO-TEX STANDARD 100)	Various	X	-	-	-	-
Phthalimide	85-41-6	X	-	-	-	-
Potassium cyanide <sup>7</sup>	151-50-8	X	Please see limit values in table 5.1	testing required	-	-
Quinoline	91-22-5	X	testing required	50	-	-
Quintozene	82-68-8	X	-	-	-	-
Rubber, natural Latex, sulphur cured SBR Accelerators releasing carcinogenic nitrosamines, such as	Various	X	-	-	-	-
Zinc diethyldithiocarbamate (ZDEC)	14324-55-1	X	-	-	-	-

X Use restricted

(X)<sup>2</sup> Use restricted, except for PPE production. Use need to be controlled and monitored (e.g. by wastewater testing).

(X)<sup>3</sup> Use accepted as process preservative in leather industry, unless otherwise regulated by law.

<sup>7</sup> sludge testing: determined as total cyanide



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Substance	CAS No.	MRSL	Wastewater		Sludge	
			Limit Values [µg/l]	Reporting Limit [µg/l]	Limit Values [mg/kg]	Reporting Limit [mg/kg]
Silica (particles of respirable size)	14464-46-1	X	-	-	-	-
Sodium cyanide <sup>7</sup>	143-33-9	X	Please see limit values in table 5.1	testing required	-	-
Sodium sulfide	1313-82-2	(X) <sup>3</sup>	Please see limit values in table 5.1	-	-	-
Sodium sulfide, hydrat	27610-45-3	X	Please see limit values in table 5.1	-	-	-
Sodium sulfide, nonahydrat	1313-84-4	X	Please see limit values in table 5.1	-	-	-
Sodium sulfide, pentahydrat	1313-83-3	X	Please see limit values in table 5.1	-	-	-
Halogenated terphenyles	Various	X	-	-	-	-
Thiourea	62-56-6	X	testing required	50	-	-
Trialkyltin-, Triaryltin-, arsenic- or arsenic compounds as protective agents for production water	Various	X	-	-	-	-
Trichlorophenoxy fatty acid and derivatives	Various	X	-	-	-	-
Triclosan	3380-34-5	X	testing required	100	-	-
2-(2,4,5-Trichlorophenoxy)propionic acid salts	Various	X	-	-	-	-
2-(2,4,5-Trichlorophenoxy)propionic acid (Fenoprop)	93-72-1	X	-	-	-	-
2,4,5-Trichlorophenoxyacetic acid (2,4,5-T)	93-76-5	X	-	-	-	-
2,4,5-Trichlorophenoxyacetic acid salts	Various	X	-	-	-	-
2,4,5-Trimethylaniline hydrochloride	21436-97-5	X	testing required	0.1	-	-
Tris(2-methoxyethoxy)vinylsilane	1067-53-4	-	-	-	-	-
Titanium dioxide (particles of respirable size) <sup>7</sup>	1317-70-0 1317-80-2 13463-67-7	X	-	-	-	-
2,4-Diaminoanisol sulphate	39156-41-7	X	testing required	0.1	-	-
2-Naphthylammonium acetate	553-00-4	X	testing required	0.1	-	-
4-Chlor-o-toluidinium chloride (Azoic Diazo Component II)	3165-93-3	X	testing required	0.1	-	-
2-Benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	X	testing required	100	-	-
2,4-Di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	X	testing required	100	-	-
2-(2H-Benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	X	testing required	100	-	-
2-(2H-Benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	X	testing required	100	-	-

<sup>7</sup> sludge testing: determined as total cyanide

(X)<sup>3</sup> Use accepted as process preservative in leather industry, unless otherwise regulated by law.

<sup>7</sup> Particles of respirable size are prevalent if >= 1% w/w of particles within the powder have a size of < 10 µm





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Substance	CAS No.	MRSL	Wastewater		Sludge	
			Limit Values [µg/l]	Reporting Limit [µg/l]	Limit Values [mg/kg]	Reporting Limit [mg/kg]
4-Phenylcyclohexene	4994-16-5	X	-	-	-	-
4-Vinylcyclohexene	100-40-3	X	-	-	-	-
Glutaraldehyde	111-30-8	(X) <sup>5</sup>	-	-	-	-
<b>15. Climate relevant gases (Ozone layer depleting substances and fluorinated greenhouse gases)</b>						
Complete halogenated chlorofluorohydrocarbons (CFC's)	Various	(X) <sup>4</sup>	-	-	-	-
Complete halogenated chlorofluorohydrocarbons containing bromines	Various	(X) <sup>4</sup>	-	-	-	-
Partly halogenated chlorofluorohydrocarbons (HCFC's)	Various	(X) <sup>4</sup>	-	-	-	-
Partly halogenated chlorofluorohydrocarbons containing bromines	Various	(X) <sup>4</sup>	-	-	-	-
Hydrofluorocarbons (HFC's)	Various	(X) <sup>4</sup>	-	-	-	-

The assignment of a substance to a chemical group mentioned above does not mean that the substance is used exclusively for this purpose. Use for other purposes is also not authorised.

Chemicals listed in this MRSL that cannot be eliminated from the processes due to current technical limitations may be used as long as no substitute product is available and every effort is made to minimise the exposure of workers, release into the environment and residues in the produced and treated articles. Restricted chemicals that are used due to technical limitations or which have specific technical properties are allowed for use if a valid ECO PASSPORT certificate is provided or the chemical is listed as an accepted active chemical product (ACP) (see OEKO-TEX® website). In this case testing of wastewater and sludge (if applicable) is mandatory and legal requirements need to be met.

將物質分配在上述化學品組中並不意味著該物質專門用於此目的。用於其他目的同樣未得到授權。

在沒有替代產品並且已經盡一切努力將工人的接觸、向環境中的釋放以及在生產和處理物品中的殘留降至最低的前提下，則可以使用本 MRSL 中列出的因當前技術限制而無法從製程中消除的化學品。如果提供有效的 ECO PASSPORT 證書，或該化學品被列為可接受的活性化學產品 (ACP) (請參閱 OEKO-TEX® 網站)，則允許使用因技術限制而使用的受限化學品或具有特定技術特性的化學品。在這種情況下，必須對廢水和污泥 (如適用) 進行檢測，並滿足法律要求。

X Use restricted

(X)<sup>5</sup> it is accepted as an in-can preservation

(X)<sup>4</sup> For reference see regulations (EC) 517/2014 and 1005/2009 and STeP Standard chapter 4.2.6.



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## 4 Annex

### Prohibited and hazardous production processes

#### 4.1 Prohibited processes

Some procedures for the production and finishing of textiles and leather are associated with a high risk to the environment or to health and safety of the workers. The following procedures are not permitted:

- Sandblasting for the treatment of jeans or other textile goods. Procedures that operate in a closed system are an exception, provided that the concentration of respirable crystalline silicon dioxide at the workplace does not exceed a minimum limit of 0.025 mg/m<sup>3</sup> (time weighted average).
- Use of heavy petrol in printing systems.
- Use of dichromate as an oxidizer to improve colour fastness, except for very dark shades in wool.
- Use of chlorinated organic solvents or fluorine-chlorinated, organic solvents / liquids in open systems.
- Printing with thickener systems based on hazardous aromatic hydrocarbons.
- Use of chlorofluorocarbons (CFCs) or dichloromethane as a foamer in foam production.

#### 4.2 Non-recommended hazardous processes

Textile and leather production facilities may use hazardous chemicals during pretreatment, dyeing, finishing, and other processes that may have negative effects. Therefore it is recommended to avoid certain products / procedures or to reduce the use of such products / procedures:

- Potentially hazardous surfactants should be replaced by biodegradable / eliminable surfactants and complex formers in pretreatment and dyeing processes. Surfactants and complex formers that are not biodegradable and eliminable should be avoided.
- The use of high action potential antifoam agents (e.g. PBT Persistent Bioaccumulating & Toxic) in wastewater should be avoided or reduced by avoiding material rotation, recycling, or the selection of biodegradable / eliminable products.
- The use of sodium hypochlorite as a bleaching agent should be avoided or reduced as much as possible.
- Cross linking reagents with a high proportion of formaldehyde for the antcrease finish of cotton

## 附錄

### 禁止和危險的生產工序

#### 禁止的生產工序

一些紡織品和皮革的生產和整理程序與環境的高風險或工人的安全相關。不得使用以下程序：

- 對牛仔褲或其他紡織品進行噴砂處理。在封閉系統中操作的程序除外，前提是工作場所中可吸入結晶二氧化矽的濃度不超過最低限量值 0.025 mg/m<sup>3</sup> (時間加權平均值)。
- 在印花系統中不允許使用重油。
- 除羊毛中極深的色調以外，不允許使用重鉻酸鹽作為氧化劑來改善色牢度。
- 不允許在開放系統中使用氯代有機溶劑或氟氯代有機溶劑/液體。
- 使用基於有害芳烴的增稠劑體系進行印花。
- 在泡棉生產中使用氯氟烴(CFC)或二氯甲烷作為發泡劑。

#### 不推薦的有害工藝

紡織和皮革生產工廠可能在預處理、染色、整理和其他可能產生負面影響的工藝中使用危險化學品。因此，建議避免使用某些產品/程序或減少此類產品/程序的使用：

- 在預處理和染色工藝中，應當用可生物降解/可消除的表面活性劑和絡合物形成劑來替代潛在有害的表面活性劑。應避免使用不可生物降解和不可消除的表面活性劑和絡合物形成劑。
- 應通過避免物料循環、回收利用或選擇可生物降解/可消除的產品來避免或減少在廢水中使用高效消泡劑(例如，PBT，即持久性生物累積和毒性)。
- 應盡量避免或最大程度減少使用次氯酸鈉作為漂白劑。
- 應避免在棉布的防皺整理中使用含高比例甲醛的交聯劑，例如二羥甲基脲或二羥甲基乙脲。



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such as dimethylol urea or dimethylol ethylene urea should be avoided.

- If the use of PFCs is unavoidable, for example in the production of oil-repellent workwear, the residual liquids of the treatment and subsequent rinsing baths should be collected. The residues shall be disposed of professionally by a licensed company.
  - Any exposure to carbon disulphide, hydrogen sulphide, ammonium gas and zinc sulphate should be avoided or reduced as much as possible, e.g. through the implementation of closed-loop or reprocessing systems.
  - The use of potassium permanganate, especially as a chemical for water treatment, surface treatment and as a laboratory chemical, should be avoided or reduced as much as possible.
  - Natural sizing agents, cellulose derivatives or the use of biodegradable agents should be preferred. Synthetic sizing agents should be recycled if technically possible at a highest percentage rate.
- 如果無法避免使用 PFC(例如在防油工作服的生產中),則應收集處理和後續沖洗浴的殘留液體。這些殘留物應由具備執照的公司進行專業處置。
  - 應盡量避免或減少任何二硫化碳,硫化氫,氨氣和硫酸鋅的接觸,例如:通過實施閉環或後處理系統。
  - 應盡量避免或最大程度減少使用高錳酸鉀,尤其是用作水處理、表面處理的化學品以及用作實驗室化學品。
  - 應優先使用天然上漿劑、纖維素衍生物或可生物降解劑。如果技術上可行,應盡量可能以高比例回收合成上漿劑。

## 5 Annex

## 附錄

### Limit values for wastewater effluents and air emissions

### 廢水排放和空氣排放物的限量值

#### 5.1 Limit values for effluents - Direct discharge 污水處理後直接排放的限量值

Parameter / 參數		Minimum / 最低	Advanced / 高級	Excellent / 優良
pH-value / 酸鹼值 / pH 值		6.0 - 9.0	6.5 - 8.5	7.0 - 8.0
Max. effluent temperature / 最高出水溫度 <sup>1</sup>	°C	Δ15 / max. 35	Δ10 or 30	Δ5 or 25
Colour / spectral absorption coefficient at .... / ... 的顏色/光譜吸收係數。	436 nm	m-l	7	5
	525 nm	m-l	5	3
	620 nm	m-l	3	2
Chemical oxygen demand COD (as O <sub>2</sub> ) / 化學需氧量	mg/l	150	80	40
Biochemical oxygen demand BOD <sub>5</sub> (as O <sub>2</sub> ) / 生化需氧量 BOD <sub>5</sub> ( O <sub>2</sub> )	mg/l	30	15	5
Adsorbable organic halogens AOX (as Cl) / 可吸附有機鹵素含量	mg/l	1.00	0.50	0.1
Ammonia as NH <sub>4</sub> -N / 氨氮 ( 以 NH <sub>4</sub> -N 的量表示 )	mg/l	10	1	0.5
Total-N / 總氮	mg/l	20	10	5
Phosphor total as P / 總磷 P	mg/l	3	0.5	0.1
Total suspended solids / 總懸浮固體量	mg/l	50	25	10
Oil and Grease / 油脂	mg/l	10	2	0.5
Phenol-Index / 苯酚指數 <sup>2</sup>	mg/l	0.5	0.01	0.001
E.coli / 大腸桿菌	CFU/100ml	126	126	126
Persistent foam / 持泡性	mg/l	not visible	not visible	not visible
Cyanide / 氰化物	mg/l	0.2	0.1	0.05
Sulphides (as S <sub>2</sub> ) / 硫化物 ( S <sub>2</sub> )	mg/l	0.5	0.25	0.1
Sulfite / 亞硫酸鹽	mg/l	2	1	0.2

<sup>1</sup> Either the maximum temperature shall not be exceeded or (in case of high temperatures in the facilities surroundings) the difference between the effluent temperature and the receiving water body must not exceed the difference indicated. In this case, the temperature of the receiving water body is to be tested upstream of the point of discharge. / 不得超過最高溫度，或者（如果工廠周圍環境溫度很高）不得超過流出溫度與接收水體之間的指定溫差。在這種情況下，應在排放點上游測量接收水體的溫度。

<sup>2</sup> Limits do not apply to leather producers with wet processes. / 限值不適用於濕處理過程的皮革生產商。

Sampling and testing of wastewater effluents towards required parameters shall be done at least annually by an independent authorised laboratory / testing body.

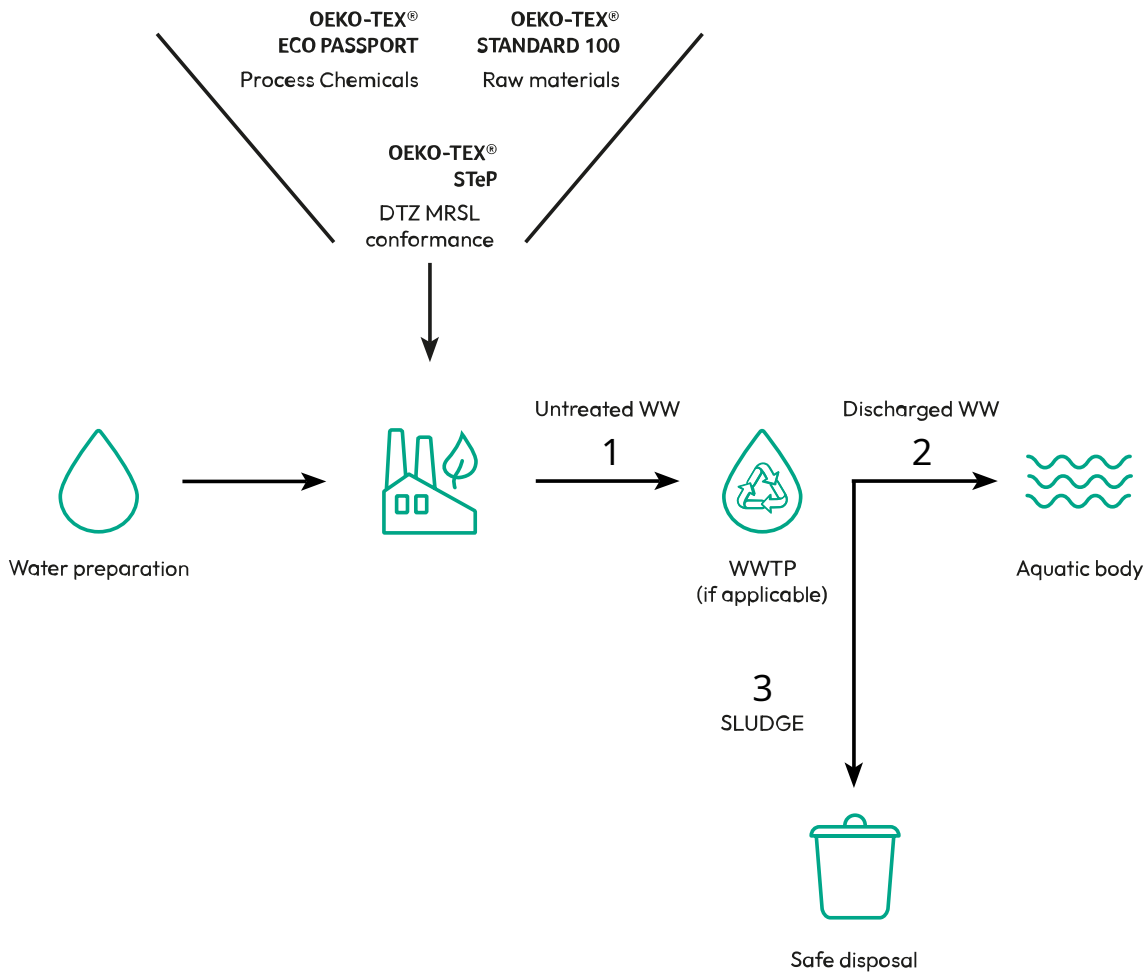
應至少每年由獨立的授權實驗室/檢測機構就必需參數對廢水出水進行取樣和檢測。



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### 5.1.1 Wastewater Sampling Points - Direct Discharge

廢水採樣點：直接排放



- Untreated ww: untreated wastewater, after production
- Discharged ww: wastewater released from facility leaving facility boundaries (to aquatic body)
- Sludge: solid or semi-solid material separated during the wastewater treatment
- WWTP: Wastewater treatment plant (same as ETP: Effluent treatment plant)
- 未處理廢水：生產後未經處理的廢水
- 排放廢水：工廠排放的廢水離開工廠地界（進入水體）
- 污泥：廢水處理過程中分離出的固態或半固態物質
- WWTP：廢水處理廠（同 ETP：污水處理廠）

The raw wastewater sampling is important for measuring the MRSL parameters due to direct analysis of the potential harmful pollution of aquatic body.

原廢水採樣可以直接分析水體潛在的有害污染，對於測量 MRSL 參數具有重要意義。

The samples shall be tested separately (as indicated in the table below) and NOT BLENDED together.

樣本必須單獨測試，不能混合測試，如下表所示。



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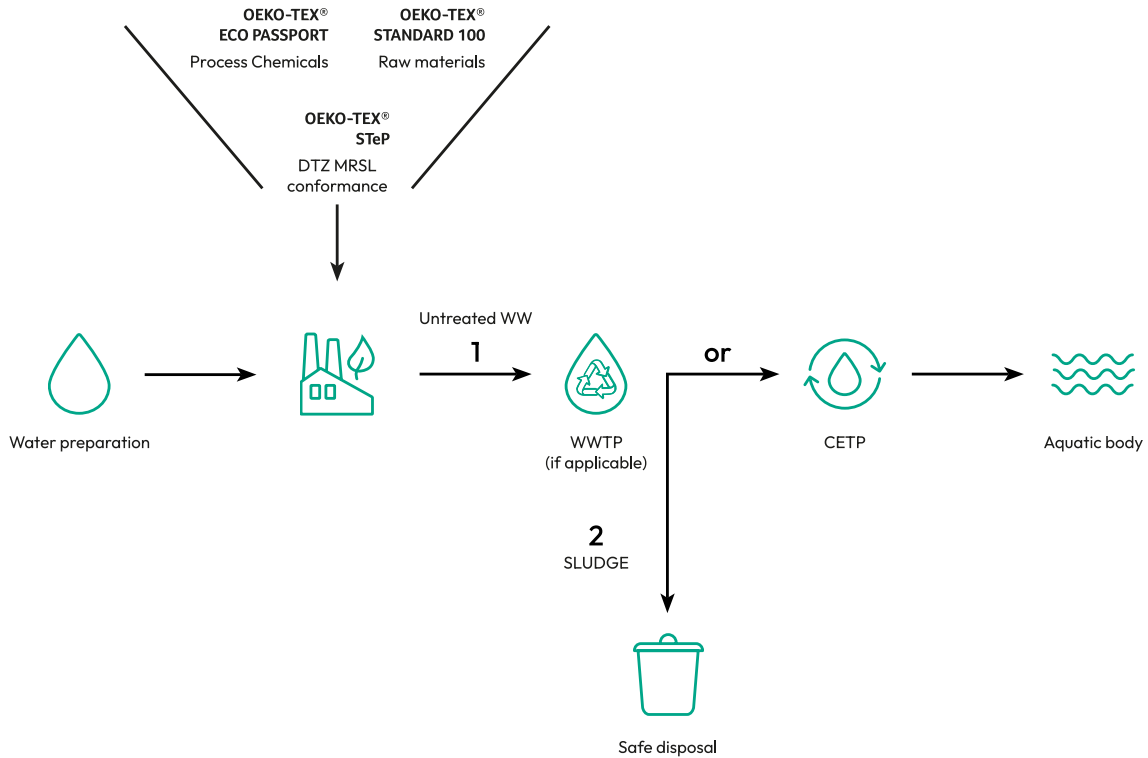
Discharge Types / 排放類型	Sampling Points / 採樣點	Requirements / 要求	Where to find requirements / 從何處查找要求
Direct Discharge / 直接排放	1. Untreated Wastewater / 1.未處理廢水	MRSL parameters / MRSL 參數	Annex 3 / 附錄 3
	2. Discharged treated wastewater / 2.處理后的廢水排放	Conventional parameters / 常規參數	ANNEX 5: table 5.1 / 附錄 5 : 表 5.1
	3. Sludge / 3.污泥	MRSL Parameter (sludge relevant) / MRSL 參數 ( 污泥相關 )	ANNEX 3 / 附錄 3



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### 5.1.2 Wastewater Sampling Points - Indirect Discharge

### 廢水採樣點——間接排放



- Untreated ww: untreated wastewater, after production
- Sludge: solid or semi-solid material separated during the wastewater treatment
- WWTP: Wastewater partly or fully treatment plant
- CETP: Central effluent treatment plant or public sewage treatment plant

- 未處理廢水：生產後未經處理的廢水
- 污泥：廢水處理過程中分離出的固態或半固態物質
- WWTP：廢水處理廠，部分或全部廢水處理廠
- CETP：中央污水處理廠或公共污水處理廠

The untreated wastewater sampling is important for measuring the MRSL parameters due to direct analysis of the potential harmful pollution. If a facility has its own WWTP, the untreated wastewater shall be tested for MRSL parameters.

未經處理的廢水採樣可以直接分析潛在的有害污染，對於測量 MRSL 參數具有重要意義。如果工廠擁有內部 WWTP，則必須對未處理廢水進行 MRSL 參數測試。

If a facility has no WWTP or wastewater is only partly treated and is going to CETP, then untreated wastewater is to be considered as indirect discharged wastewater.

如果工廠沒有 WWTP，或者廢水只有部分經過處理並進入 CETP，那麼未處理廢水將被視為間接廢水排放。



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Discharge Types / 排放類型	Sampling Points / 採樣點	Requirements / 要求	Where to find requirements / 從何處查找要求
Indirect Discharge with own WWTP / 間接排放 (有內部 WWTP)	1. Untreated Wastewater / 1.未處理廢水	MRSL parameters / MRSL 參數 <sup>1</sup>	ANNEX 3 / 附錄 3
	2. Sludge / 2.污泥	MRSL Parameter (sludge relevant) / MRSL 參數 (污泥相關)	ANNEX 3 / 附錄 3
Indirect Discharge without own WWTP / 間接排放 (沒有內部 WWTP)	1. Untreated Wastewater / 1.未處理廢水 <sup>1</sup>	MRSL parameters / MRSL 參數 <sup>1</sup>	ANNEX 3 / 附錄 3

<sup>1</sup> Excluding heavy metals Antimony (Sb), Chromium (Cr), Cobalt (Co), Nickel (Ni), Zinc (Zn), Manganese (Mn) and Silver (Ag) / 不含重金屬：銻 (Sb)、鉻 (Cr)、鈷 (Co)、鎳 (Ni)、鋅 (Zn)、錳 (Mn)、銀 (Ag)

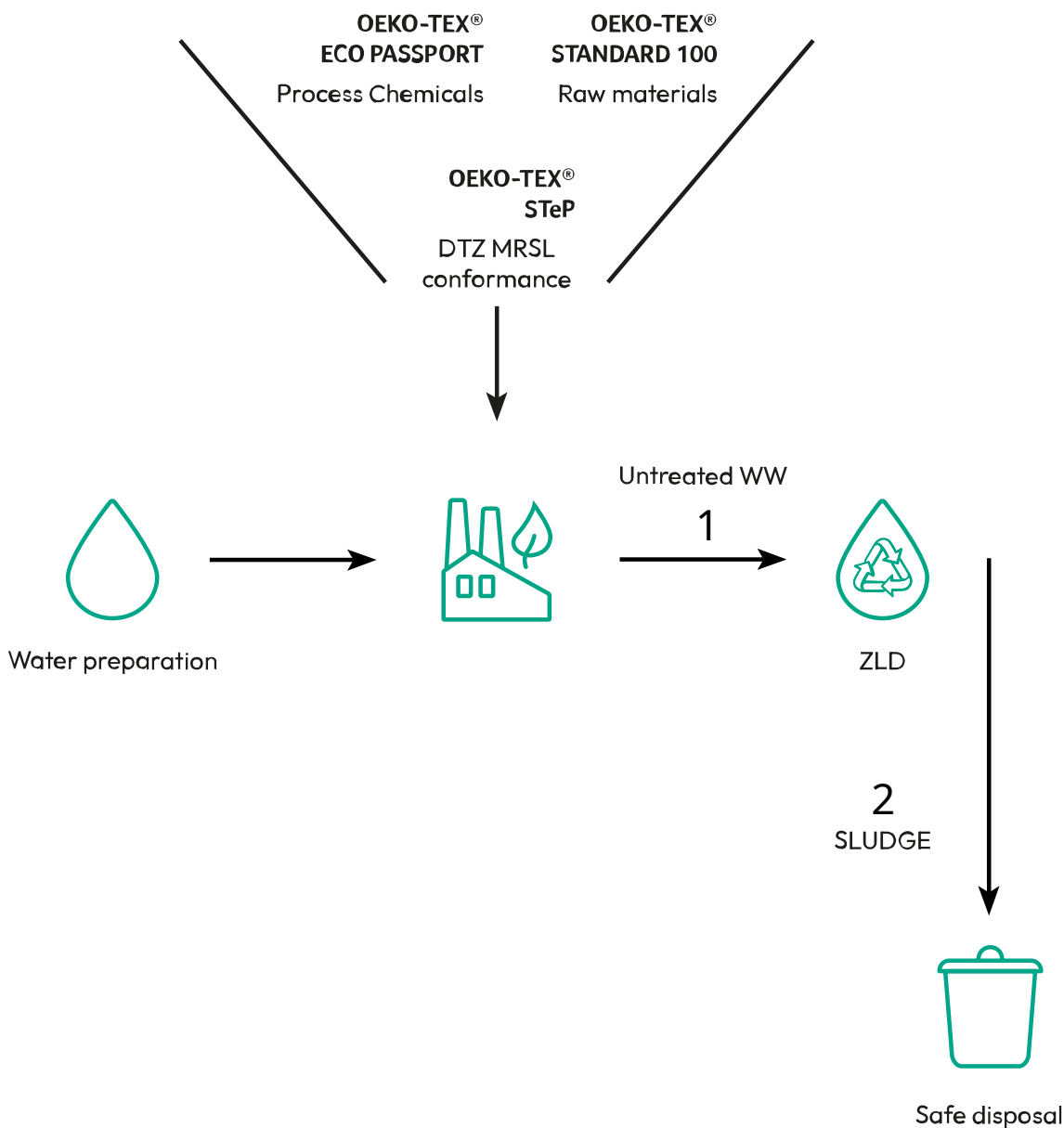




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### 5.1.3 Wastewater Sampling Points - Zero Liquid Discharge

### 廢水採樣點——零液體排放



Discharge Types / 排放類型	Sampling Points / 採樣點	Requirements / 要求	Where to find requirements / 從何處查找要求
ZLD Treatment Plan / ZLD 處理方案	1. Untreated Wastewater / 1.未處理廢水	MRSL parameters / MRSL 參數 <sup>1</sup>	ANNEX 3 / 附錄 3
	2. Sludge / 2.污泥	MRSL parameters (sludge relevant) / MRSL 參數 (污泥相關)	ANNEX 3 / 附錄 3

<sup>1</sup> Excluding heavy metals / 不含重金屬



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## 5.2 CO (Carbon Monoxide)

## CO ( 一氧化碳 )

Parameter / 參數 <sup>1</sup>		Minimum / 最低	Advanced / 高級	Excellent / 優良
Carbon Monoxide (CO): For plants with a thermal value between 0.3 MW and 2 MW / 一氧化碳(CO): 適用於熱值介於 0.3 MW 和 2 MW 之間的電廠				
Solid fuel / 固體燃料	mg/Nm <sup>3</sup>	1000	650	200
Liquid fuel / 液體燃料	mg/Nm <sup>3</sup>	700	300	150
Gaseous fuel / 氣體燃料	mg/Nm <sup>3</sup>	500	250	100
Carbon Monoxide (CO): For plants with a thermal value > 2 MW / 一氧化碳 ( CO ): 熱值超過 2 兆瓦的電廠				
Solid fuel / 固體燃料	mg/Nm <sup>3</sup>	800	450	150
Liquid fuel / 液體燃料	mg/Nm <sup>3</sup>	500	300	150
Gaseous fuel / 氣體燃料	mg/Nm <sup>3</sup>	500	250	100
Carbon Monoxide (CO): For gas / diesel generators > 0.3 MW / 一氧化碳(CO): 適用於 0.3 MW 以上的燃氣/柴油發電機				
Gaseous fuel / 氣體燃料	mg/Nm <sup>3</sup>	500	250	150
Diesel fuel / 柴油	mg/Nm <sup>3</sup>	500	250	150

<sup>1</sup> Please note: limits do not apply to generators, firing plants and boilers only used for emergency situations (operating hours <500 hours/year). / 限量值不適用於只在緊急情況下使用的發電機 ( 每年運行時間<500 小時 )。

The limit values and grading given in the upper table refer to a volumetric oxygen content of 6% for solid fuels, 3% for liquid and gaseous fuels and 15% for diesel generators (liquid and gaseous fuels). Emission limit values in the form of concentrations are expressed in mg/Nm<sup>3</sup> and relate to conducted emissions in the conditions: temperature 273,15 K, pressure 101,3 kPa, dry gas. The air quantities supplied to a part of the installation to dilute or cool the waste gas cannot keep into account when determining the emission values.

上表給出的限量值和等級是指固體燃料的體積氧含量為 6%、液體和氣體燃料的體積氧含量為 3%、柴油發電機 ( 液體和氣體燃料 ) 和燃氣渦輪機的體積氧含量為 15 % 的情況。 濃度形式的排放限量值以 mg/Nm<sup>3</sup> 為單位來表示,並且與換算為以下條件下的排放濃度相關: 溫度 273.15 K, 壓力 101.3 kPa, 乾基氣體。 在決定排放值時,不能將提供給裝置的一部分以稀釋或冷卻廢氣的空氣量來考慮。



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### 5.3 SO<sub>2</sub> (Sulphur dioxide)

### SO<sub>2</sub> ( 二氧化硫 )

Parameter / 參數 <sup>1</sup>		Minimum / 最低	Advanced / 高級	Excellent / 優良
SO <sub>2</sub> : For plants with a thermal value between 0.3 MW and 2 MW / SO <sub>2</sub> : 適用於熱值介於 0.3 MW 和 2 MW 之間的電廠				
Solid fuel / 固體燃料	mg/Nm <sup>3</sup>	750	500	300
Liquid fuel / 液體燃料	mg/Nm <sup>3</sup>	650	400	200
Gaseous fuel / 氣體燃料	mg/Nm <sup>3</sup>	100	70	30
SO <sub>2</sub> : For plants with a thermal value between 2 MW and 50 MW / SO <sub>2</sub> : 熱值在 2-50 兆瓦之間的電廠				
Solid fuel / 固體燃料	mg/Nm <sup>3</sup>	750	500	300
Liquid fuel / 液體燃料	mg/Nm <sup>3</sup>	650	400	200
Gaseous fuel / 氣體燃料	mg/Nm <sup>3</sup>	100	70	30
SO <sub>2</sub> : For plants with a thermal value > 50 MW / SO <sub>2</sub> : 熱值超過 50 兆瓦的電廠				
All fuel / 所有燃料	mg/Nm <sup>3</sup>	650	400	200
SO <sub>2</sub> : For gas / diesel generators > 0.3 MW / SO <sub>2</sub> : 適用於 0.3 MW 以上的燃氣/柴油發電機				
Gaseous fuel / 氣體燃料	mg/Nm <sup>3</sup>	200	100	30
Diesel fuel / 柴油	mg/Nm <sup>3</sup>	900	400	60

<sup>1</sup> Please note: limits do not apply to generators, firing plants and boilers only used for emergency situations (operating hours <500 hours/year). / 請注意: 限值不適用於在緊急情況下 (工作時間小於 500 小時/年) 使用的發電機、火力發電廠和鍋爐。

The limit values and grading given in the upper table refer to a volumetric oxygen content of 6% for solid fuels, 3% for liquid and gaseous fuels and 15% for diesel generators (liquid and gaseous fuels). Emission limit values in the form of concentrations are expressed in mg/Nm<sup>3</sup> and relate to conducted emissions in the conditions: temperature 273,15 K, pressure 101,3 kPa, dry gas. The air quantities supplied to a part of the installation to dilute or cool the waste gas cannot keep into account when determining the emission values.

上表給出的限量值和等級是指固體燃料的體積氧含量為 6%、液體和氣體燃料的體積氧含量為 3%、柴油發電機 (液體和氣體燃料) 和燃氣渦輪機的體積氧含量為 15 % 的情況。濃度形式的排放限量值以 mg/Nm<sup>3</sup> 為單位來表示,並且與換算為以下條件下的排放濃度相關:溫度 273.15 K,壓力 101.3 kPa,乾基氣體。在決定排放值時,不能將提供給裝置的一部分以稀釋或冷卻廢氣的空氣量來考慮。



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## 5.4 NOx

## NOx (氮氧化物)

Parameter / 參數 <sup>1</sup>		Minimum / 最低	Advanced / 高級	Excellent / 優良
NOx: For plants with a thermal value between 0.3 MW and 2 MW / NOx: 適用於熱值介於 0.3 MW 和 2 MW 之間的電廠				
Solid fuel / 固體燃料	mg/Nm <sup>3</sup>	650	300	150
Liquid fuel / 液體燃料	mg/Nm <sup>3</sup>	650	300	150
Gaseous fuel / 氣體燃料	mg/Nm <sup>3</sup>	300	250	100
NOx: For plants with a thermal value >2 MW / NOx(氮氧化物): 熱值超過 2 兆瓦的電廠				
Solid fuel / 固體燃料	mg/Nm <sup>3</sup>	650	300	150
Liquid fuel / 液體燃料	mg/Nm <sup>3</sup>	650	300	150
Gaseous fuel / 氣體燃料	mg/Nm <sup>3</sup>	300	250	100
NOx: For gas / diesel generators > 0.3 MW / NOx: 適用於 0.3 MW 以上的燃氣/柴油發電機				
Gaseous fuel / 氣體燃料	mg/Nm <sup>3</sup>	500	300	100
Diesel fuel / 柴油	mg/Nm <sup>3</sup>	1000	500	200

<sup>1</sup> Please note: limits do not apply to generators, firing plants and boilers only used for emergency situations (operating hours <500 hours/year). / 請注意: 限值不適用於在緊急情況下 (工作時間小於 500 小時/年) 使用的發電機、火力發電廠和鍋爐。

The limit values and grading given in the upper table refer to a volumetric oxygen content of 6% for solid fuels and 3% for liquid and gaseous fuels and 15% for diesel generators (liquid and gaseous fuels). Emission limit values in the form of concentrations are expressed in mg/Nm<sup>3</sup> and relate to conducted emissions in the conditions: temperature 273,15 K, pressure 101,3 kPa, dry gas. The air quantities supplied to a part of the installation to dilute or cool the waste gas cannot keep into account when determining the emission values.

上表給出的限量值和等級是指固體燃料的體積氧含量為 6%、液體和氣體燃料的體積氧含量為 3%、柴油發電機 (液體和氣體燃料) 和燃氣渦輪機的體積氧含量為 15% 的情況。濃度形式的排放限值以 mg/Nm<sup>3</sup> 為單位表示, 並且與換算為以下條件下的排放濃度相關: 溫度 273.15 K, 壓力 101.3kPa, 乾基氣體。在決定排放值時, 不能將提供給裝置的一部分以稀釋或冷卻廢氣的空氣量來考慮。



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## 5.5 Dust / Particulate Matter (PM) 粉塵/微粒物質

Parameter / 參數 <sup>1</sup>		Minimum / 最低	Advanced / 高級	Excellent / 優良
Dust: For all firings between 0.3 MW and 10 MW / 粉塵：適用於介於 0.3 MW 和 10 MW 之間的所有燒製設備				
Solid fuel / 固體燃料	mg/Nm <sup>3</sup>	200	100	50
Liquid fuel / 液體燃料	mg/Nm <sup>3</sup>	200	100	50
Gaseous fuel / 氣體燃料 <sup>2</sup>	mg/Nm <sup>3</sup>	50	20	5
Dust: For firings >10 MW / 粉塵：適用於>10 MW 的燒製設備				
Solid fuel / 固體燃料	mg/Nm <sup>3</sup>	150	100	50
Liquid fuel / 液體燃料	mg/Nm <sup>3</sup>	150	100	50
Gaseous fuel / 氣體燃料 <sup>2</sup>	mg/Nm <sup>3</sup>	50	20	5
Dust: For gas / diesel generators > 0.3 MW / 粉塵：適用於 0.3 MW 以上的燃氣/柴油發電機				
Gaseous fuel / 氣體燃料 <sup>2</sup>	mg/Nm <sup>3</sup>	150	100	50
Diesel fuel / 柴油	mg/Nm <sup>3</sup>	150	100	50

<sup>1</sup> Please note: limits do not apply to generators, firing plants and boilers only used for emergency situations (operating hours <500 hours/year). / 限量值不適用於只在緊急情況下使用的發電機 (每年運行時間<500小時)。

<sup>2</sup> Limits do not apply to natural gas, but for other types of gas, such as biogas, refinery gas. / 限量值不適用於天然氣，但適用於其他類型的氣體 (例如沼氣、煉廠氣)。



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## 6 Requirements for facilities producing Viscose (CV) and Modal (CMD)

面向生產粘膠 ( CV ) 和莫代爾 ( CMD ) 的工廠的要求

Viscose (CV) and Modal (CMD)

粘膠 ( CV ) 和莫代爾 ( CMD )

### 6.1 Limit values effluents - Direct discharge

廢水限量值 - 直接排放

Parameter / 參數		Minimum / 最低	Advanced / 高級	Excellent / 優良
pH-value / 酸鹼值 / pH 值		6.0 - 9.0	6.5 - 8.5	7.0 - 8.0
Max. effluent temperature / 最高出水溫度		°C	Δ15 / max. 35	Δ5 or 25
Colour / spectral absorption coefficient at ... / ... 的顏色/光譜吸收係數。	436 nm	m-1	7	5
	525 nm	m-1	5	3
	620 nm	m-1	3	2
Chemical oxygen demand COD (as O <sub>2</sub> ) / 化學需氧量		mg/l	150	80
Biochemical oxygen demand BOD <sub>5</sub> (as O <sub>2</sub> ) / 生化需氧量 BOD <sub>5</sub> ( O <sub>2</sub> )		mg/l	30	15
Adsorbable organic halogens AOX (as Cl) / 可吸附有機鹵素含量		mg/l	1.00	0.50
Ammonia as NH <sub>4</sub> -N / 氨氮 ( 以 NH <sub>4</sub> -N 的量表示 )		mg/l	10	1
Total-N / 總氮		mg/l	20	10
Phosphor total as P / 總磷 P		mg/l	3	0.5
Total suspended solids / 總懸浮固體量		mg/l	50	25
Oil and Grease / 油脂		mg/l	10	2
Phenol-Index / 苯酚指數 <sup>1</sup>		mg/l	0.5	0.01
Sulphides (as S <sub>2</sub> ) / 硫化物 ( S <sub>2</sub> )		mg/l	0.5	0.25
Hydrocarbons / 烴 ( 碳氫化合物 )		mg/l	5	3
Carbon disulfide (CS <sub>2</sub> ) / 二硫化碳 ( CS <sub>2</sub> )		mg/l	0.5	0.25

<sup>1</sup> Either the maximum temperature shall not be exceeded or (in case of high temperatures in the facilities surroundings) the difference between the effluent temperature and the receiving water body must not exceed the difference indicated. In this case, the temperature of the receiving water body is to be tested upstream of the point of discharge. / 不得超過最高溫度，或者（如果工廠周圍環境溫度很高）不得超過流出溫度與接收水體之間的指定溫差。在這種情況下，應在排放點上游測量接收水體的溫度。

### 6.2 Limit values for air emissions

廢氣排放限量值

Parameter / 參數	Minimum / 最低	Advanced / 高級	Excellent / 優良
Carbon disulfide (CS <sub>2</sub> ) / 二硫化碳 ( CS <sub>2</sub> )	mg/Nm <sup>3</sup>	150	75
Hydrogen sulphide (H <sub>2</sub> S) / 硫化氫 ( H <sub>2</sub> S )	mg/Nm <sup>3</sup>	50	25

### 6.3 BAT (Best available techniques)

最佳可用技巧 )

BAT for Viscose and Modal producers can be the following:

粘膠和莫代爾生產商的最佳可用技巧如下：

- to condense the exhaust air from spinning streets to recover CS<sub>2</sub> and recycle it back into the process
  - to recover CS<sub>2</sub> from exhaust air streams through adsorption on activated carbon
  - to apply air stripping for removal of CS<sub>2</sub> from the wastewater. Depending on the concentration of H<sub>2</sub>S in the exhaust air, different technologies are available for the adsorptive recovery of CS<sub>2</sub>
  - to apply exhaust air desulphurisation processes based on catalytic oxidation with H<sub>2</sub>SO<sub>4</sub> production. Depending on the mass flows and con-
- 冷凝紡紗街道的廢氣，以回收 CS<sub>2</sub> 並在生產過程中迴圈利用它
  - 利用活性炭從廢氣中吸附回收 CS<sub>2</sub>
  - 採用氣提法去除廢水中的 CS<sub>2</sub>。根據廢氣中 H<sub>2</sub>S 的濃度，可採用不同的技術吸附回收 CS<sub>2</sub>
  - 基於催化氧化就 H<sub>2</sub>SO<sub>4</sub> 生成應用廢氣脫硫工藝。根據品質流量和濃度，有許多不同的過程可用來氧化含硫廢氣



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centrations, there are a number of different processes available to oxidise exhaust gases containing sulphur

- to recover sulphate from spinning baths. BAT is to remove sulphate as Na<sub>2</sub>SO<sub>4</sub> from the wastewater. (The by-product is economically valuable and sold)
- to reduce Zn from the wastewater by alkaline precipitation followed by sulphide precipitation
- to use anaerobic sulphate reduction techniques for sensitive waterbodies
- to use fluidised bed incinerators to burn non-hazardous wastes and recover the heat for the production of steam or energy

- 從紡絲浴中回收硫酸鹽。最佳可用技巧是從廢水中去除硫酸鹽 Na<sub>2</sub>SO<sub>4</sub>。（副產品具有經濟價值並可出售）
- 先後採用鹼沉澱和硫化物沉澱法還原廢水中的鋅
- 對敏感水體採用厭氧硫酸鹽還原技術
- 使用流化床焚燒爐燃燒無害廢棄物，回收熱能以產生蒸汽或能源

#### 6.4 Health and Safety measures regarding storage, transportation and handling of carbon disulfide (CS<sub>2</sub>)

Measures to prevent contact of workers with Carbon disulfide (CS<sub>2</sub>) and its emissions shall be considered at all times. The facility shall therefore provide full body antistatic protective overall/suit, respiratory masks with self-priming filter type, safety goggles, face shield, eye protection in combination with breathing protection, protective gloves, as well as access for designated people only and special training for operators incl. safe operation instruction, emergency plan and regular emergency drill.

The facility shall take measures regarding storage of Carbon disulfide (CS<sub>2</sub>) considering sealed tanks, explosion proof installations (e.g. lights and ventilation), separately in fireproof area inside or outside, separately from other chemicals (especially oxidizing agents, alkaline and amines), cool and shady place, area without drainage into ground, area without access to wastewater tank, storage tank equipped with liquid level meter, thermometer and gas alarm detector device, emergency response equipment/materials and measures in case of leakage, proper equipment in case of fire near storage area, warning signs (safety and fire around storage area with safe distance and lightning protection facilities and anti-static equipment).

The transport of Carbon disulfide (CS<sub>2</sub>) shall also be considered by earthing equipment and that operators don't carry phone or other metal objects to avoid any possible ignition, as well as appropriate fire equipment and spill response materials.

#### 針對二硫化碳 (CS<sub>2</sub>) 的儲存、運輸和處理採取的健康和安全措施

應始終考慮採取措施防止工人接觸二硫化碳 (CS<sub>2</sub>) 及其排放物。因此，工廠應提供全身抗靜電防護服/套裝、帶有自吸篩檢程式的呼吸面具、安全護目鏡、面罩、結合呼吸保護的眼睛防護裝置、防護手套，以及僅供指定人員使用的通道，並對操作人員進行特殊培訓，包括安全操作指導、應急計劃和定期應急演練。

工廠應就二硫化碳 (CS<sub>2</sub>) 存儲採取措施，考慮使用密封罐、防爆裝置（例如照明和通風），防火區內外分開處理，與其他化學品（尤其是氧化劑、鹼性和胺類物質）分開存儲，選擇陰涼處、無地下排水區、無廢水池區域，儲罐配備液位計、溫度計和氣體報警檢測裝置，配備防洩露的應急回應設備/材料及制定相關措施，儲存區域附近放置適當的救火設備，儲存區域張貼警告標誌（安全與防火），設定安全距離，提供防雷設施和防靜電設備。

對於二硫化碳 (CS<sub>2</sub>) 的運輸，也應考慮接地設備，並且操作人員不得攜帶手機或其他金屬物品以避免出現任何可能的引燃，並配備適當的消防設備和洩漏應對材料。

## 7 Annex

Other Reference Values

## 附錄

其他參考值



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## 7.1 Reference values for dust emissions at workplaces

## 工作場所粉塵排放的參考值

parameter / 參數		Occupational Exposure Limits - 8 hours TWA (time weighted average) / 最低	Dust concentration / 粉塵濃度
Inert dust / 惰性粉塵	mg/Nm <sup>3</sup>	3	10
Coal dust (free SiO <sub>2</sub> <10%) / 煤塵 (游離 SiO <sub>2</sub> <10%)	mg/Nm <sup>3</sup>	3	10
Dyestuff / 染料	mg/Nm <sup>3</sup>	3	3
Cotton dust / 棉塵	mg/Nm <sup>3</sup>	3	10
Polypropylene dust / 聚丙烯粉塵	mg/Nm <sup>3</sup>	3	10
Silk & other fibre dust / 絲綢及其他纖維粉塵	mg/Nm <sup>3</sup>	8	n.a.
Polyvinyl chloride (PVC) dust / 聚氯乙烯 (PVC) 粉塵	mg/Nm <sup>3</sup>	3	10
Suspended Particulate Matter (SPM) / 懸浮顆粒物(SPM)	mg/Nm <sup>3</sup>	10	10

## 7.2 Reference values for Lux (lx) at workplaces (German Workplace Directive ASR A3.4)

## 工作場所 Lux ( LX ) 參考值 ( 德國工作場所指令 ASR A3.4 )

<b>Spinning</b>	<b>紡絲</b>	<b>lx</b>
Opening bales	打開棉包	200
Carding, combing, flyer, singeing etc.	粗梳, 精梳, 粗紗, 燒毛等	300
Spinning, winding, twisting, etc.	紡紗, 捲繞, 撚線等	500
<b>Weaving / Knitting / embroidery etc.</b>	<b>機織/針織/刺繡等</b>	<b>lx</b>
Sizing	上漿	200
Doubling etc.	拼線等	300
Warping, weaving, knitting, stitching etc.	整經, 機織, 針織, 縫紉等	500
controlling (fabrics, colour etc.)	控制 ( 面料, 顏色等 )	1000
<b>Dyeing, printing, finishing etc.</b>	<b>染色, 印花, 後處理等</b>	<b>lx</b>
Singeing, washing, dyeing, finishing, ironing etc.	燒毛, 水洗, 染色, 後處理, 熨燙等	300
Printing, cleaning etc.	印花, 清洗等	750
controlling (fabrics, colour etc.)	控制 ( 面料, 顏色等 )	1000
<b>Making up etc.</b>	<b>縫製等</b>	<b>lx</b>
Ironing, packing, etc.v	熨燙, 包裝等	300
Cutting, sewing etc.	裁剪, 縫紉等	500
Controlling	控制	1000





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<b>Leather production and processing</b>	<b>皮革生產和加工</b>	<b>lx</b>
Work on vats, drums and pits	利用缸、桶和池	200
Scudding, splitting, buffing, drumming and staking of the hides	獸皮的淨面、分割、磨光、轉鼓加工和刮軟	300
Saddlery work, shoe production, stitching, sewing, polishing, pressing/embossing, trimming, cutting, leather dyeing (automatic)	馬具製造、鞋類生產、縫合、縫紉、拋光、壓制/壓花、修邊、切割、皮革染色 (自動)	500
Grading, sorting	評級、排序	500
Quality control	質量控制	1000
Shoemaking (handwork), glove manufacturing	製鞋 (手工)、手套製造	500
<b>Warehouse</b>	<b>倉庫</b>	<b>lx</b>
Storage	儲存	100
Dispatch	發貨	300
<b>Office</b>	<b>辦公室</b>	<b>lx</b>
Office space	辦公區	500
Open plan office	開放式辦公室	750
<b>Industrial laundry</b>	<b>工業洗衣房</b>	<b>lx</b>
Sorting	分類	300
Washing	水洗	300
Ironing	熨燙	300
Controlling	控制	1000



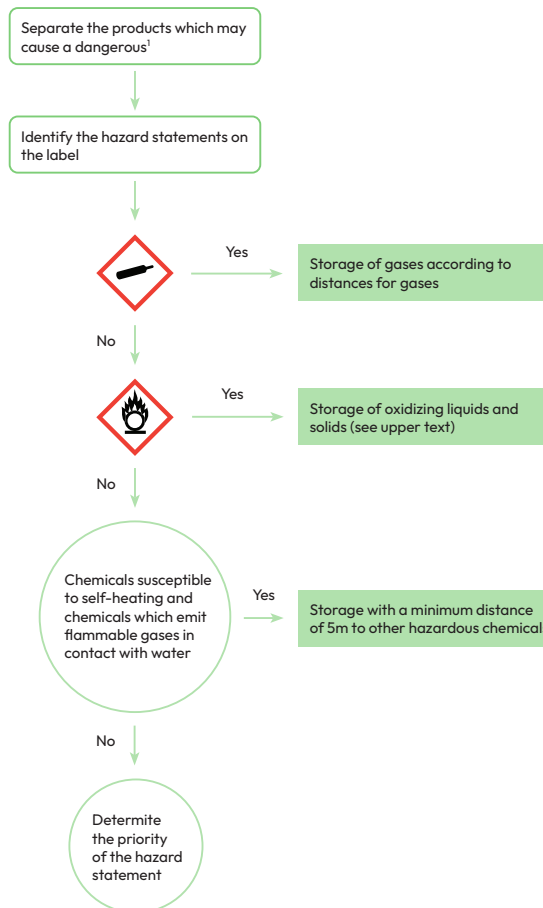
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### 7.3 Guideline for storage of chemicals

### 化學品存儲守則

Guideline for storage of chemicals

Richtlinien für die Lagerung von Chemikalien



	has priority on		has priority on		has priority on		has priority on		has priority on	
GHS02		GHS06		GHS05		GHS08		GHS07		GHS09

<sup>1</sup> Typical examples are:  
 • Acids and hypochlorite (formation of chlorine gas)  
 • Peroxides and strong bases  
 • strong acids and strong bases (heat development causing a dangerous situation)

<sup>1</sup> Typische Beispiele:  
 • Säuren und Hypochlorit (Bildung von Chlorgas)  
 • Peroxide und starke Laugen  
 • starke Säuren und starke Laugen (die Wärmeentwicklung führt zu einer Gefahrensituation)

<sup>1</sup> Typical examples are:  
 • Acids and hypochlorite (formation of chlorine gas)  
 • Peroxides and strong bases  
 • strong acids and strong bases (heat development causing a dangerous situation)

典型案例有：  
 • 各種酸和次氯酸鹽（形成氯氣）  
 • 過氧化物及強鹼  
 • 強酸和強鹼（加熱易發生危險）



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**Determine the distances according to the priority of the hazard statement 根據危險級別確定存儲間距**  
**the hazard statement**

Determine the distances according to the priority of the hazard statement

Legen Sie die Entfernungen gemäß der Priorität des Gefahrenhinweises fest

						
	GHS02	GHS06	GHS05	GHS08	GHS07	GHS09
		3m	1m	3m	1m	1m
	3m		1m	0m	0m	0m
	1m	1m		1m	1m	1m
	3m	0m	1m		0m	0m
	1m	0m	1m	0m		0m
	1m	0m	1m	0m	0m	









**Other distances for storage of dangerous liquids and solids<sup>1,2</sup> 危險液體和固體存儲距離<sup>1,2</sup>**



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Other distances for storage of dangerous liquids and solids<sup>1,2</sup>

Andere Entfernungen für die Lagerung von gefährlichen Flüssigkeiten und Feststoffen<sup>1,2</sup>

	 GHS06	 GHS09	 GHS05	 GHS07	 GHS01	 GHS03	 GHS02	 GHS08
Tank liquid inert gases (Nitrogen, Argon,...)	1m	1m	1m	1m	1m	1m	5m / 3m	1m
Tank liquid oxygen	5m / 3m	3m	3m	3m	7,5m / 5m	1m / 0m	5m	5m / 3m
Storage > 3000 l hydrogen (battery)	5m	3m	2m / 1m	1m	7,5m / 5m	7,5m / 5m	5m	5m
Boundary	5m / 3m	3m / 2m	2m	1m	7,5m / 5m	7,5m / 2m	5m	5m / 3m

<sup>1</sup> If no distinction is made between liquids and solids, only one distance is specified in the table. If there is a difference between liquids and solids, two distances are specified in the table. The figures are separated (distance for liquids/distance for solids). / 如果液體和固體沒有標註區分，表格中僅註明一種距離。如液體和固體有區分，兩者之間的存儲間距表中有詳細說明，具體數值分開顯示（液體距離或固體距離）。

<sup>2</sup> For dangerous chemicals with more than one hazard statement, the most relevant distance needs to be considered. / 對於不止一種危險性的危險化學品，應考慮最相關的存儲距離。



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## 8 Annex

## 附錄

### Referenced Third-Party RSL's (Restricted Substance List) 參考的第三方 RSL (受限物質清單)

Many organizations and brands have put together their own Restricted Substance Lists (RSLs), which are based on their own assessments of chemicals or which are intended to ensure compliance with markets where the textile products are ultimately sold. Many of these lists are broadly consistent and can also serve as a source of information for identifying potentially critical chemicals.

The OEKO-TEX® Service Ltd. published the first Restricted Substance List in 1992 before legal requirements were introduced regarding the chemical content of textiles for the protection of consumers from negative health effects caused by textiles. The RSL is updated at least once a year, is published in the "OEKO-TEX® STANDARD 100" document and can be found on the OEKO-TEX® website.

Referenced Third-Party RSL's, e.g.:

- American Apparel and Footwear Association (AAFA)
- AFIRM (Apparel & Footwear International RSL Management Group)
- Adidas
- Bestseller
- C&A
- Deckers
- ESPRIT
- H&M
- LEVI STRAUSS & CO.
- Marks & Spencer
- New Balance
- Pentland
- Puma
- VF

許多組織和品牌商已將他們自己的受限物質清單 (RSL) 組合到一起，這些清單基於他們自己對化學品的評估或旨在確保符合紡織品最終銷售市場的要求。其中許多清單大體上一致，也可以用作識別潛在的關鍵化學品的信息來源。

OEKO-TEX® Service Ltd. 在法律要求出臺前於 1992 年發佈了第一份受限物質清單，該清單涉及紡織品的化學成分，用於保護消費者免受紡織品引起的負面健康影響。RSL 每年至少更新一次，發佈在“OEKO-TEX® STANDARD 100”檔中，並且可在 OEKO-TEX® 網站上找到。

參考的第三方 RSL (受限物質清單)



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## 9 Annex

## 附錄

### Accepted Third-Party certification systems

### 認可的第三方認證體系

#### 9.1 Chemical Management

OEKO-TEX® STeP recognises the certification OEKO-TEX® ECO PASSPORT for chemicals.

#### 化學品管理

OEKO-TEX® STeP 認可 OEKO-TEX® ECO PASSPORT 化學品認證。

#### 9.2 Environmental Performance

At this point no third-party environmental performance assessments are accepted by OEKO-TEX® STeP.

#### 環境績效

目前，OEKO-TEX® STeP 不接受第三方環境績效評估。

#### 9.3 Environmental Management

#### 環境管理

##### 9.3.1 ISO 14000 Series of Standards

##### ISO 14000 系列標準

The ISO 14000 series includes most notably the ISO 14001 standard (Environmental management systems – Requirements with guidance for use), which represents the core set of standards used by organisations for designing and implementing an effective environmental management system. ISO 14001 is recognised by OEKO-TEX® STeP to fulfil the environmental management system criteria.

ISO 14000 系列包括最著名的 ISO 14001 標準 (環境管理體系-使用指導要求)，它是組織設計和實施有效的環境管理體系所使用的核心標準。ISO 14001 受到 OEKO-TEX® STeP 的認可，被視為滿足環境管理體系標準。

Other standards included in this series are:

該系列的其他標準包括：

**ISO 14004** Environmental management systems – General guidelines on implementation

環境管理體系 – 實施總則

**ISO 14015** Environmental assessment of sites and organizations

現場和組織環境評估

**ISO 14020** Series (14020 to 14025) Environmental labels and declarations

系列 (14020-14025) 環境標籤和聲明

**ISO 14031** Environmental performance evaluation – Guidelines

環境績效評估-指導原則

**ISO 14040** Principles and framework for life cycle assessment (LCA)

生命週期評估(LCA)的原則和框架

**ISO 14050** Environmental management – Vocabulary

環境管理 – 術語

**ISO 14062** Integrating environmental aspects into product design and development

將環境因素整合到產品設計和開發中

**ISO 14063** Environmental communication – Guidelines and examples

環境通信——指南和示例

**ISO 14064** Measuring, quantifying, and reducing Greenhouse Gas emissions

測量、量化並減少溫室氣體排放

**ISO 19011** Audit protocol for both, 14000 and 9000 series standards together

14000 和 9000 系列標準的審核方案

##### 9.3.2 EMAS

##### EMAS

The Eco-Management and Audit Scheme (EMAS) is a voluntary environmental management instru-

生態管理和審核計劃(EMAS)是一種自願性環境管理工具，由歐洲委員會於 1993 年制定。它使組織能夠



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ment which was developed by the European Commission in 1993. It enables organisations to assess, manage and continuously improve their environmental performance. The scheme is globally applicable and open to all types of private and public organisations. In order to register with EMAS, organisations have to meet the requirements of the EU EMAS-Regulation.

Organisations applying for ISO 14001 have to take a few steps to become registered under EMAS.

## 9.4 Social Responsibility

### 9.4.1 amfori (BSCI)

Amfori is a global business association for open and sustainable trade. The association contains organisations of all sizes and all sectors. Their mission is to enhance human prosperity, use natural resources responsibly and drive open trade globally and ultimately contribute to the fulfilment of the UN Sustainable Development Goals (SDGs).

Since 2003, amfori BSCI has enabled companies to trade with purpose by improving social performance in their supply chain by use of 11 core principles. The amfori BSCI platform provides a space for all social-related supply chain information.

### 9.4.2 FWF – Fair Wear Foundation

The Fair Wear Foundation (FWF) is a multi-stakeholder initiative working to improve workplace conditions in the garment and textile industry. Governed by labour unions, NGOs and business associations, FWF verifies that its member companies implement the FWF Code of Labour Practices in their supply chains.

### 9.4.3 SA8000 – Social Accountability International (SAI)

SA8000 is an auditable certification standard that encourages organisations to develop, maintain and apply socially acceptable practices in the workplace. SA8000 streamlines the complexities of navigating industry and corporate codes to create a common language and standard for measuring social compliance. It can be applied worldwide to any company in any industry, which makes it an extremely useful tool for measuring, comparing, and verifying social accountability in the workplace.

### 9.4.4 SETEX (SMETA)

SMETA (Sedex Members Ethical Trade Audit) is an auditing procedure developed by the Sedex organization (Supplier Ethical Data Exchange) to monitor compliance with labor rights, health and safety standards, environmental standards and business ethics.

評估、管理並持續提升其環境績效。該計劃在全球範圍內適用，並向所有類型的私人和公共組織開放。若要在 EMAS 註冊，組織必須滿足歐盟 EMAS 法規的要求。

申請 ISO 14001 認證的組織必須通過一些步驟註冊 EMAS。

## 社會責任

### amfori (BSCI)

Amfori 是開放和可持續貿易領域的一個全球商業協會。該協會包含各種規模和各種行業部門的組織。他們的使命是促進人類繁榮、負責任地利用自然資源並推動全球開放貿易，最終為實現聯合國可持續發展目標(SDG)做貢獻。

自 2003 年以來，amfori BSCI 使公司能夠利用 11 項核心原則來提升其在供應鏈中的社會績效，並以此來開展貿易。amfori BSCI 平台為所有與社會相關的供應鏈信息提供了空間。

### FWF -公平服裝基金會

公平服裝基金會 (FWF) 是一個多方利益相關者的倡議，旨在改善服裝和紡織行業的工作條件。FWF 受工會、非政府組織和商業協會管理，且須確保其會員企業在各自的供應鏈實施 FWF 勞工實踐守則。

### SA8000 -社會責任標準 (SAI)

SA8000 是可審核的認證標準，鼓勵組織發展、維持和應用社會所接受的工作場所實踐。SA8000 簡化了導航行業和企業代碼的複雜程式，創建了衡量社會責任的共同語言和標準。可應用於全球各個行業的任何公司，這使它成為測量、比較和驗證工作場所社會責任的實用工具。

### SETEX (SMETA)

SMETA (Sedex 會員道德貿易審核) 是由 Sedex 組織 (供應商道德資料交換) 開發的審核程序，用於監控勞工權利、健康與安全標準、環境標準和商業道德的遵守情況。



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### 9.4.5 WRAP – Worldwide Responsible Accredited Production

WRAP is an independent, objective, non-profit team of global social compliance experts dedicated to promoting safe, lawful, humane and ethical manufacturing around the world through certification and education. The WRAP Principles are based on generally accepted international workplace standards, local laws and workplace regulations which encompass human resources management, health and safety, environmental practices and legal compliance including import/export, customs compliance and security standards.

## 9.5 Quality Management System

### 9.5.1 ISO 9000 Standard

The ISO 9000 family addresses various aspects of quality management and contains some of the best known ISO standards. The standards provide guidance and tools for companies and organisations who want to ensure that their products and services consistently meet customer requirements and that quality is consistently improved.

ISO 9001 sets out the requirements of a quality management system and is the only standard in the family that can be used for certification (although this is not a requirement). It can be used by any organisation, large or small, regardless of its field of activity. The standard is based on a number of quality management principles including a strong customer focus, the motivation and implication of top management, the process approach and continual improvement.

ISO 9001 is recognised by OEKO-TEX® STeP to fulfill the quality management system criteria.

Other standards included in this series are:

<b>ISO 9000</b>	Quality management systems – Fundamentals and vocabulary
<b>ISO 9004</b>	Quality management systems – Sustained success of an organization
<b>ISO 19011</b>	Guidelines for auditing management systems

### 9.5.2 IATF 16949

IATF 16949:2016 was published by the IATF and supersedes and replaces the ISO/TS 16949. It is a widely used international standard for automotive sector quality management. It aims at the development of a quality management system that provides continual improvement, emphasising defect prevention and reduction of variation and waste in the supply chain. It is based on ISO 9001 and har-

### WRAP -國際社會責任認證

WRAP 是獨立、客觀、非營利的全球社會責任專家團隊，致力於通過認證和培訓促進世界各地的安全、合法、人道和道德生產。WRAP 原則的基礎是通用的國際工作場所標準以及當地的法律和工作場所規定，其中包括人力資源管理、健康與安全、環境實踐，及進口/出口、海關合規性和安全性標準的法律合規性。

## 品質管制體系

### ISO 9000 標準

ISO 9000 系列標準涉及質量管理的各個方面，並包含一些最著名的 ISO 標準。這些標準為希望確保其產品和服務始終滿足客戶要求並不斷提高質量的公司和組織提供指導和工具。

ISO 9001 規定了質量管理體系的要求，並且是該系列中唯一可用於認證（儘管並非強制要求）的標準。它適用於任何組織（無論其規模大小和活動領域）。該標準基於許多質量管理原則，包括以顧客為關注焦點、頂層管理的動機和含義、過程方法和持續改進。

ISO 9001 受到 OEKO-TEX® STeP 的認可，被視為滿足品質管理體系標準。

本系列包含的其他標準包括：

質量管理體系 – 基礎和術語
質量管理體系 – 組織的持續成功
管理系統審核指南

### IATF 16949

IATF 16949:2016 由 IATF 國際汽車工作組發佈，替代 ISO/TS 16949，是在汽車質量管理領域廣泛使用的國際標準。目的是發展質量管理體系，提供持續改進、缺陷防範、減少汽車零部件供應鏈中容易產生的質量波動和浪費。基於 ISO 9001，統一了各國的質量管理體系要求。





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monises country-specific regulations of quality management systems.

## 9.6 Health & Safety

## 健康和安全

### 9.6.1 ANSI Z10-2012

### ANSI Z10-2012

The ANSI Z10-2012 standard, available from the American Society of Safety Engineers, provides management system requirements and guidelines for improving EHS.

美國安全工程師學會的 ANSI Z10-2012 標準提供了管理體系要求和 EHS 改進指南。

The standard was developed by the ANSI Accredited Standards Committee Z10, including over 40 members from industry, labour, government and special groups.

該標準由 ANSI 認可的標準委員會 Z10 制定，該委員會包括來自工業、勞工、政府和特殊團體的 40 多名成員。

The standard defines minimum requirements for an occupational safety and health management system and applies to organisations of all sizes and types.

該標準規定了職業安全與健康管理體系的最低要求，並且適用於各種規模和類型的組織。

### 9.6.2 CSA Z1000

### CSA Z1000

CAN/CSA Z1000-2006 is the Canadian national consensus standard emphasising the Occupational Health and Safety Management System processes. With a strong emphasis on worker participation and other key characteristics, Z1000 provides organisations with a tool to help enhance existing OHSMS programmes or establish new ones.

CAN/CSA Z1000-2006 是加拿大國家標準，重點強調了職業健康與安全管理體系流程。Z1000 重點強調員工參與及其他關鍵特性，為組織提供了一種有助於改進現有 OHSMS 計劃或建立新計劃的工具。

Based on the Plan-Do-Check-Act management system model, Z1000 can be incorporated into companies with an already existing ISO 45001, ISO 9001 or ISO 14001 system.

基於“策劃-實施-檢查-改進”管理體系模式，可將 Z1000 納入已有 ISO 45001、ISO 9001 或 ISO 14001 體系的公司。

### 9.6.3 ISO 45001

### ISO 45001

The International standard for certification is ISO 45001 (Occupational health and safety management systems – Requirements with guidance for use).

國際認證標準是 ISO 45001 (職業健康與安全管理體系 – 要求以及使用指導)。

ISO 45001 is set to replace OHSAS 18001.

ISO 45001 將取代 OHSAS 18001。

It specifies requirements for an OH&S management system to help organisations develop and implement a policy and objectives which take into account legal requirements and information about OH&S risks. It applies to all types and sizes of organisations and accommodates diverse geographical, cultural and social conditions.

ISO 45001 規定了 OH&S 管理體系的要求，幫助組織制定和實施包含有關 OH&S 風險的法律規定和信息的政策和目標。它適用於各種類型和規模的組織及不同的地域、文化和社會條件。

### 9.6.4 OHSAS 18001

### OHSAS 18001

OHSAS 18001 is a British Standard for occupational health and safety management systems. It is widely seen as one of the world's most recognized occupational health and safety management system standards. OHSAS 18001 will be replaced by ISO 45001, published March 2018.

OHSAS 18001 是英國職業健康與安全管理體系標準。它被普遍認為是全球最廣為人知的職業健康與安全管理體系標準之一。OHSAS 18001 將被 2018 年 3 月發佈的 ISO 45001 取代。



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### 9.6.5 VPP (OSHA)

The Voluntary Protection Programs (VPP) promote effective worksite-based safety and health. In the VPP, management, labour and OSHA establish cooperative relationships at workplaces that have implemented a comprehensive safety and health management system. Approval into VPP is the official OSHA recognition of the outstanding efforts of employers and employees who have achieved exemplary occupational safety and health.

## 9.7 Ethical standards

### 9.7.1 Responsible Down Standard (RDS)

The Responsible Down Standard (RDS) allows companies to ensure that the downs in their products come from ethically treated geese.

### VPP (OSHA)

自願保護計劃 ( VPP ) 旨在促進有效的工作場所安全和健康。根據 VPP , 管理層、勞工與 OSHA 在工作場所建立合作關係, 實施全面的安全與健康管理體系。加入 VPP 是 OSHA 對職業安全和健康模範雇主和雇員傑出努力的正式認可。

## 倫理標準

### 負責任羽絨標準(RDS)

負責任羽絨標準(RDS)使公司能夠確保使用的羽絨來自人道對待的水禽。



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## 10 Annex

### Additional information references and tools

#### 10.1 Chemical Management

##### 10.1.1 OEKO-TEX® STANDARD 100

The OEKO-TEX® STANDARD 100 is a worldwide consistent, independent testing and certification system for raw, semi-finished, and finished textile products at all processing levels, as well as accessory materials used. Examples of articles that can be certified are raw and dyed/finished yarns, woven and knitted fabrics, accessories, such as buttons, zip fasteners, sewing threads or labels as well as ready-made articles of various types (garments of all types, domestic and household textiles, bed linen, terry products and much more). On the basis of its comprehensive and strict catalogue of measure, the STANDARD 100 takes account of:

- Important legal regulations, such as banned Azo colourants, pentachlorophenol, cadmium, lead (US-CPSIA), etc.
- Numerous harmful chemicals, even if they are not yet legally regulated
- Numerous also environmentally relevant substance classes
- Requirements of Annexes XVII and XIV of the European Chemicals Regulation REACH as well as of the ECHA SVHC Candidate List

Test criteria and limit values in many cases go far beyond applicable national and international standards.

##### 10.1.2 OEKO-TEX® LEATHER STANDARD

The OEKO-TEX® LEATHER STANDARD is a globally standardized, independent testing and certification system for leather products and takes account of all processing stages, leather fiber materials, all kinds of leather accessories, and leather shoes.

The standard distinguishes between four product classes: Infants and young children, skin contact, without skin contact, and accessory materials. The certification of skins and furs is subject to a special regulation within the LEATHER STANDARD. Leathers from exotic animal species are not certifiable

##### 10.1.3 OEKO-TEX® ECO PASSPORT

OEKO-TEX® ECO PASSPORT is a mechanism by which chemical manufacturers and suppliers demonstrate that their products can be used in sustainable textile and leather production. The ECO PASS-

## 附錄

### 更多信息參考資料和工具

#### 化學品管理

##### OEKO-TEX® STANDARD 100

OEKO-TEX® STANDARD 100 是全球通行的、針對所有加工環節的紡織品原材料、半成品和成品以及所用輔料的獨立一致的檢測和認證系統。可獲得認證的製品的示例包括：原料和染色/成品紗線、編織品和針織品、輔料（如鈕扣、拉鍊、縫紉線或標籤）以及各種類型的製成品（各類服裝、家用紡織品、被單和枕套、毛巾產品等等）。STANDARD 100 基於全面嚴格的測量目錄，其考慮了：

- 重要的法律條例，例如禁用偶氮染料、五氯苯酚、鎘、鉛(US-CPSIA)等
- 即使尚未受到法律監管的許多有害化學品
- 許多與環境相關的物質類別
- 歐洲化學品監管法規 REACH 的附錄 XVII 和 XIV 以及 ECHA 的 SVHC 候選清單的要求

我們的檢測標準和限量值通常比當地適用的國家和國際標準更為嚴格。

##### OEKO-TEX® LEATHER STANDARD

OEKO-TEX® LEATHER STANDARD 是一套全球標準化的獨立皮革產品測試和認證系統，並考慮到所有加工階段、皮革纖維材料、所有種類的皮革輔料和皮鞋。

該標準分為四個產品類別：嬰幼兒產品、直接接觸皮膚類產品、非直接接觸皮膚類產品以及裝飾材料。皮革和皮毛的認證受皮革標準的特殊規定限制。不予認證來自珍稀動物物種的皮革。

##### OEKO-TEX® ECO PASSPORT

OEKO-TEX® ECO PASSPORT 認證體系使得化學品製造商和供應商可以通過其證明自身產品可用於可持續的紡織品和皮革生產。OEKO-TEX® ECO PASSPORT 認證包含四步驗證流程，前兩步對於取得



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PORT certification process includes four stages of verification. The first two are mandatory to receive the ECO PASSPORT certificate. The last two can be carried out if the applicant chooses the option.

- 1: CAS Number Screening (mandatory)
- 2: Analytical Verification (mandatory)
- 3: Self-Assessment (mandatory)
- 4: On-Site Visit (optional)

### 10.1.4 Reference values for chemical assessment

The following tables are a graphical representation of important endpoints from different sources with global relevance where hazards of a chemical are indicated by symbols, keywords or codes.

ECO PASSPORT 證書必不可少，後兩步可自行選擇，根據申請人的要求進行。

1. CAS 编号篩查 (强制)
2. 分析驗證 (强制)
3. 自我評估 (強制要求)
4. 現場審核 (可选)

### 化學品評估的參考值

下表是具有全球相關性的不同來源的重要終點的圖形表示，其中化學品的危害由符號、關鍵詞或代碼來表示。

**Accute Mammalian Toxicity, dermal**  
 ("... in contact with skin"), guiding values for LD<sub>50</sub> in mg/kg

Guiding value	< 50	200	1000	2000	> 5000
GHS Symbol					
	Danger	Danger	Danger	Warning	Warning
GHS Key Word	"Fatal..."	"Fatal..."	"Toxic..."	"Harmful..."	"May be harmful..."
GHS Code	H310	H310	H311	H312	H313

**Accute Mammalian Toxicity, inhalation of gaseous or vaporized chemicals**  
 ("... if inhaled"), guiding values for LC<sub>50</sub> in mg/L (upper scale) and ppmV (lower scale)

Guiding value	< 0.5 < 100	2 500	20	50 2500	> 400 > 20000
GHS Symbol					
	Danger	Danger	Danger	Warning	Warning
GHS Key Word	"Fatal..."	"Fatal..."	"Toxic..."	"Harmful..."	"May be harmful..."
GHS Code	H330	H330	H331	H332	H333

**Accute Mammalian Toxicity, inhalation of chemicals as dust, mist, or fume**  
 ("... if inhaled"), guiding values for LC<sub>50</sub> in mg/L

Guiding value	< 0.05	0.5	1.0	5.0	
GHS Symbol					
	Danger	Danger	Danger	Warning	Warning
GHS Key Word	"Fatal..."	"Fatal..."	"Toxic..."	"Harmful..."	"May be harmful..."
GHS Code	H330	H330	H331	H332	H333



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**Carcinogenicity**

("... cause (causing) cancer")

Adverse Effect	Known or presumed human carcinogen	Suspected human carcinogen	Limited or marginal evidence of carcinogenicity in animals
GHS Symbol			
	Danger	Danger	
GHS Key Word	"May..."	"Suspected of..."	
GHS Code	H350	H351	

GHS requires the indication of exposure route if there is only one specific route to be considered.

**Mutagenicity / Genotoxicity**

("... cause (causing) genetic defects")

Adverse Effect	Known to induce heritable mutations in germ cells of humans	Suspected to induce heritable mutation in germ cells of humans	Evidence of mutagenicity supported by positive results in vitro or vivo somatic cells of humans/animals
GHS Symbol			
	Danger	Danger	
GHS Key Word	"May..."	"Suspected of..."	
GHS Code	H340	H341	

GHS requires the indication of exposure route if there is only one specific route to be considered.

**Reproductive (developmental) Toxicity**

("... damage fertility or the unborn child"), guiding values for daily dose in mg/kg or my/L

Guiding values			
Oral	< 50	250	1000
Dermal	< 100	500	2000
Inhalation (vapour or gas)	< 1	2.5	20
(dust, mist or fume)	< 0.1	0.5	5
GHS Symbol			
	Danger	Warning	
GHS Key Word	"May..."	"Suspected of..."	"May cause harm to the breast-fed children..."
GHS Code	H360	H361	H362

**Non lethal specific Organ Toxicity (single exposure, for inhalation 4h)**

("... damage to organs", evt. specific information regarding target organ or route of exposure), guiding values mg/kg or mg/L

Guiding values			
Oral	< 300	2000	
Dermal	< 1000	2000	
Inhalation (vapour or gas)	< 10	20	
(dust, mist or fume)	< 1.0	5.0	
GHS Symbol			
	Danger	Warning	
GHS Key Word	"Cause..."	"May cause..."	"May cause respiratory irritations or may cause drowsiness or dizziness..."
GHS Code	H370	H371	H335 or H336



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**Non lethal specific Organ Toxicity (repeated exposure, for inhalation during 6h/d)**

("... damage to organs through prolonged or repeated exposure", evt. specific information regarding target organ or route of exposure),  
 guiding values mg/kg or mg/L

Guiding values		
Oral	< 10	100
Dermal	< 20	200
Inhalation (vapour or gas)	< 0.2	1.0
(dust, mist or fume)	< 0.02	0.2
GHS Symbol		
	Danger	Warning
GHS Key Word	"Cause..."	"May cause..."
GHS Code	H372	H373

**Aspiration hazard**

("... if swallowed and enters airways")

GHS Symbol		
	Danger	Warning
GHS Key Word	"May be fatal..."	"May be harmful..."
GHS Code	H304	H305

**Sensation**

LLNA (EC3) Magnusson Kligman at ≤ 0.1% at 1.0 - 1.0 % at > 1.0 %	at any concentration	
	≥ 30% Cat 1A ≥ 60% Cat 1A; ≥ 30% Cat 1B or ≥ 30% Cat 1B	
GHS Symbol		
	Danger	Warning
GHS Key Word	"May cause allergy or asthma symptoms or breathing difficulties if inhaled"	"May cause an allergic skin reaction"
GHS Code	H334	H317
Buehler assay at ≤ 0.2% at 0.2 - 20.0 % at > 20.0 %	≥ 15% Cat 1A ≥ 60% Cat 1A; 15 - 60% Cat 1B or ≥ 15% Cat 1B	

**Eye irritation / corrosivity**

Adverse Effect	Irreversible destruction of tissue or irritation persisting > 21 days	Irritation persisting 8 to 21 days	Moderate irrita- tion clears in 7 or less days	Mild irritation clears within 24 hours
GHS Symbol				
	Danger	Warning	Warning	
GHS Key Word	"Cause severe eye damage"	"Causes serious eye irritation"	"Causes eye irritation"	
GHS Code	H318	H319	H320	



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**Skin irritation / corrosivity**

Adverse Effect	Destruction of tissue and/or scarring	Severe irritation (erythema or edema) at 72 hours	Moderate irritation at 72 hours	Mild or slight irritation at 72 hours
GHS Symbol				
GHS Key Word	Warning	Warning	Warning	
GHS Code	H314	H315	H316	

**Acute Aquatic Toxicity**

("... to aquatic life"), guiding values for LC<sub>50</sub> in mg/L

Guiding value	<1.0	10	100
GHS Symbol			
GHS Key Word	Warning		Warning
GHS Code	H400	H401	H402

**Chronic Aquatic Toxicity**

("... to aquatic life with long lasting effects"), guiding values for NOEC or LOEC in mg/L

Guiding value				
Non-rapidly degrading:	< 0.1	1.0	10	
Rapidly degrading:	< 0.01	0.1	1.0	
GHS Symbol				
GHS Key Word	Warning			
GHS Code	H410	H411	H412	H413

**Environmental Persistence**

Guiding values for half time life in days

	≥ 180	60	16	"Ready biodegradable according to OECD 301, 310"
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**Bioaccumulation**

Guiding values for Bioaccumulation or bioconcentration factor (without unit)

Normal scale	> 5000	1000	100
On log scale	> 3.7	3	2

**Biodegradability / Eliminability**

Guiding values % for different aquatic toxicity

LC <sub>50</sub> > 100 mg/L	60	70	80	90	100
LC <sub>50</sub> : 10 - 100 mg/L	70		80	90	100
LC <sub>50</sub> : 1 - 10 mg/L	95				100



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### 10.1.5 TEGEWA Classification Chart of Chemical Auxiliaries

The German TEGEWA e.V. (Association of producers of textile, paper, leather and fur auxiliaries and colourants, surfactants, complexing agents, antimicrobial agents, polymeric flocculants, cosmetic raw materials, pharmaceutical excipients and allied products) offers buyers' guides, brochures and further information for the classification of chemicals and auxiliaries which are used in the textile and leather industry.

### 10.1.6 Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

The Globally Harmonized System of Classification and Labelling of Chemicals (GHS) is a system launched by the United Nations to replace the different system for classification and labelling of chemicals in different countries in the world by using consistent criteria. The labelling of chemicals and preparations are based on symbols, signal words as well as short sentences describing the associated physical, health and environmental hazards. The document also describes the information which shall be provided with the material safety data sheets of chemicals and preparations.

The current version of the GHS can be downloaded from the official website of the United Nations Economic Commission for Europe (UNECE).

### 10.1.7 Rules for Classification, Labelling and Packaging of Dangerous Substances in the European Union (CLP)

In Europe the rules for classification, packaging and labelling of chemicals and preparations has developed over many years. The following legislative papers have been of relevance and still show their impacts today also outside of Europe. For example the R- and S-Phrases originating from these papers are widely used in communication related to chemicals. Historically the following Directives/Regulations are the most important ones:

- 67/548/EEC (Directive on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances).
- 1999/45/EC (Directive concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations)

### 化工助劑 TEGEWA 分類圖

德國 TEGEWA e.V. (紡織品、紙張、皮革和毛皮助劑和著色劑、表面活性劑、絡合劑、抗菌劑、聚合物絮凝劑、化妝品原料、藥用輔料及相關產品生產商協會) 提供買家指南、產品手冊以及用於對紡織品和皮革行業中使用的化學品和助劑進行分類的更多信息。

### 全球化學品統一分類和標籤制度(GHS)

全球化學品統一分類和標籤制度 (GHS) 是聯合國推出的系統，旨在採用一致的標準替代全球各國不同的化學品分類和標籤系統。化學品和製劑的標籤包括符號，標誌詞，以及描述相關的物理，健康和環境危害的短句。該文件還介紹了必須與化學品和製劑的材料安全數據表一同提供的信息。

當前版本的 GHS 可以從聯合國歐洲經濟委員會 (UNECE) 的官方網站進行下載。

### 歐盟危險物質的分類、標籤和包裝法規 (CLP)

歐洲的化學品和製劑的分類、包裝和標籤規則已有多年的發展歷史。以下法律文件十分重要，至今仍在歐洲及歐洲以外的地區發揮其影響力。例如，源自這些文件的 R- 和 S-Phrases 被廣泛用於與化學品有關的通訊。以下為歷史上最重要的指令/法規：

- 67/548/EEC (有關危險物質分類、包裝和標籤的法律、法規和行政規定的指令)。
- 1999/45/EC (有關成員國關於危險製劑的分類，包裝和標籤的事宜，近似法律，法規和行政規定的指令)





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- 2001/59/EC (Directive adapting to technical progress for the 28th time Council Directive 67/548/EEC on the approximation of the laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances)
- 1272/2008/EC (Regulation on classification, labelling and packaging of sub-stances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006).

This last regulation actually initiates the change from the European solution towards the adoption of the GHS initiative from the United Nations and amends affected parts of the REACH Regulation.

### 10.1.8 REACH Regulation

The SVHC Candidate List for substances for eventual authorization in REACH contains substances which are

- Carcinogenic category 1 or 2
- Mutagenic of category 1 or 2
- Toxic for reproduction category 1 or 2
- Persistent, bio accumulative and toxic or
- Very persistent and very bio accumulative

The list can be downloaded from the official website of the European Chemicals Agency (ECHA).

### 10.1.9 US EPA

The United States Environmental Protection Agency (EPA or sometimes USEPA) is an agency of the U.S. federal government which was created for the purpose of protecting human health and the environment by writing and enforcing regulations based on laws passed by Congress.

Within the US EPA (United States Environment Protection Agency) there exists a program called “Design for the Environment” (DfE). This program is supported by industry, environmental groups, and academia with the common goal to reduce risk to humans and environment which may be associated to the use of chemicals. For this purpose they have compiled a document titled “Design for the Environment Program Alternatives Assessment Criteria for Hazard Evaluation” in which guiding values are compiled for various endpoints with relevance to human and environmental. This document can be downloaded from the official website of the US EPA.

### 10.1.10 Prop 65 list of the State of California

Proposition 65 requires California to publish a list of chemicals known to cause cancer, birth defects or other reproductive harm. This list, which must be

- 2001/59/EC (根據第 28 屆理事會指令 67/548/EEC 的技術發展，有關危險物質分類、包裝和標籤的近似法律、法規和行政規定的指令)
- 1272/2008/EC (有關物質和混合物的分類、標籤和包裝的法規，修訂和廢除了指令 67/548/EEC 和 1999/45/EC，並修訂了法規 (EC) 第 1907/2006 號)。

自最後一個法規，歐洲開始採納聯合國的 GHS 方案並修訂 REACH 法規的相關部分。

### REACH 法規

REACH 中最終授權的 SVHC 候選物質清單中包含的物質如下：

- 1 類或 2 類致癌物
- 1 類或 2 類致突變物
- 1 類或 2 類生殖毒性物質
- 持久性、生物累積性和毒性物質或
- 強持久性和強生物累積性物質

該清單可從歐洲化學品管理局(ECHA)的官方網站進行下載。

### 美國 EPA

美國國家環境保護局 (EPA 或有時稱為 USEPA) 是美國聯邦政府一個機構，其創設目的在於根據國會通過的法律制定並執行法規以保護人類健康和環境。

在 US EPA (美國國家環境保護局) 內，存在一個名為“環保設計”(DfE)的計劃。該計劃得到工業界、環保團體和學術界的支持，其共同目標是降低可能與化學品使用相關的人類和環境風險。為此，他們編寫了一份標題為“環保設計計劃：危害評估中的替代品評估標準”的文件，其中提出了與人類和環境相關的各種終點的指導值。該文件可從 US EPA 的官方網站進行下載。

### 加州第 65 號提案

第 65 號提案要求加利福尼亞公佈已知會導致癌症、先天缺陷或其他生殖危害的化學品清單。該清單每



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updated at least once a year, has grown to include approximately 900 chemicals since it was first published in 1987.

The list contains a wide range of naturally occurring and synthetic chemicals that include additives or ingredients in pesticides, common household products, food, drugs, dyes, or solvents. Listed chemicals may also be used in manufacturing and construction, or they may be byproducts of chemical processes, such as motor vehicle exhaust.

### 10.1.11 Chemical assessment and management systems

There are currently no existing international standards for a chemical management system.

Various initiatives and external service providers are offering tools to assess chemicals, e.g. based on the CAS No (Chemical Abstract Services Registry number). The following initiatives and tools may help to assess the chemicals which are used and which can be identified by their CAS No and assessed in respect of various endpoints.

**BizNGO** The BizNGO group has described a pragmatic approach for a chemical management system, which is highly overlapping with the demands and scoring levels of the OEKO-TEX® STeP certification scheme. More information can be found on the bizngo-website.

**ChemSec** An independent Swedish non-profit organization that advocates for a world free from hazardous chemicals. The SIN (Substitute It Now!) List by ChemSec is a comprehensive database of chemicals likely to be restricted or banned in the EU. It is publicly available, regularly updated and provided completely free of charge.

**GoBlu** GoBlu is a sustainability accelerator for apparel and textile companies, providing brand-level, supply chain-level, and communications services to clients around the globe. Their BluHive app is a smart way to manage chemicals. With a smartphone, anyone can now develop an accurate, up-to-date chemical inventory by taking snapshots of chemical container or scanning QR codes. BluHive automatically matches the scan or snapshot with relevant additional information and provides data on major sustainable certifications or cre-

年必須至少更新一次，自 1987 年首次發佈以來，已經增加至涵蓋大約 900 種化學品。

該清單包含各種天然和合成化學品，其中包括農藥、常見家用產品、食品、藥品、染料或溶劑中的添加劑或成分。列出的化學品也可能用於製造和建築，或者它們可能是化學過程的副產品，例如機動車尾氣。

### 化學品評估和管理體系

目前還沒有關於化學品管理體系的國際標準。

各種計劃和外部服務提供商提供有用於評估化學品的工具，例如基於 CAS 編號（化學文摘社登記號）進行評估。以下計劃和工具可能有助於對使用的化學品進行評估，並且這些化學品可通過其 CAS 編號進行鑑定並通過各種終點進行評估。

BizNGO 聯盟發佈了用於化學管理體系的實用方法，該方法與 OEKO-TEX® STeP 認證計劃的要求和評分級別高度重疊。如需瞭解更多資訊，請訪問 bizngo 網站。

一家獨立的瑞典非營利性組織，倡導沒有危險化學品的世界。國際化學品秘書處所列 SIN(慎·名單)是歐盟可能限制或禁用的化學品的綜合數據庫。該清單是公開的，定期更新，並完全免費提供。

GoBlu 是服裝和紡織公司的可持續發展加速器，為全球客戶提供品牌層、供應鏈層和通信服務。他們的 BluHive 應用程序是管理化學品的一條智能途徑。通過智能手機，現在任何人都可以通過拍攝化學容器的快照或掃描 QR 碼來開發準確、最新的化學品庫存。BluHive 自動將掃描結果或快照與相關的附加信息進行匹配，並提供有關主要可持續性認證或憑據的數據，從而創建完整的化學品庫存。



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dentials, creating a complete chemical inventory.

**GreenScreen® for Safer Chemicals** is a method of comparative Chemical Hazard Assessment (CHA) that can be used for identifying chemicals of high concern and safer alternatives. It is a tool to assess chemicals regarding various endpoints and impact categories (very high, high, moderate and low impact).

GreenScreen® for Safer Chemicals 是一種比較性化學品危害評估(CHA)方法，可用於識別高度關注的化學品和更安全的替代品。它是一種評估化學品的各種終點和影響類別（影響極高、高、中等和低）的工具。

**GreenWERCS** is a software tool that can be used to evaluate the health and environmental hazards of chemicals in products (not free of charge).

一款可用於評估產品中化學品的健康和環境危害的軟件工具（非免費）。

### 10.1.12 Zero Discharge of Hazardous Chemicals (ZDHC)

The ZDHC is an association founded in 2011 by textile and shoe manufacturers and retailers. The aim of the ZDHC programme is the prevention and elimination of dangerous chemicals and the support of safe chemical management.

OEKO-TEX® supports the ZDHC initiative and acknowledges the ZDHC list of provisionally accepted laboratories for wastewater testing as a reference list of accredited institutes (see ZDHC website / programme / output).

As part of its Roadmap To Zero, ZDHC has recognised the OEKO-TEX® ECO PASSPORT certification as indicator of their MRSL compliance. These formulations, among others, that are certified according to ECO PASSPORT are listed in the ZDHC gateway.

### 有害物質零排放 (ZDHC)

ZDHC 是一個由紡織品和鞋類製造商及零售商於 2011 年成立的基金會。ZDHC 計劃的目標是預防和消除危險化學品並支持安全的化學品管理。

OEKO-TEX®支持 ZDHC 行動，並將 ZDHC 認可廢水檢測實驗室列表作為認可機構的參考列表（參見 ZDHC 網站/計劃/輸出）。

作為其「零排放計劃路線圖」的一部分，ZDHC 已經將 OEKO-TEX® ECO PASSPORT 認證視為其 MRSL 合規性指標。經過 ECO PASSPORT 認證的化學品可列入 ZDHC 網有關化學品模塊。

## 10.2 Environmental Performance

### Amfori BEPI

- The amfori BEPI System provides participants a risk-based approach to identify and address environmental impacts in their supply chain.
- 4-step approach: supply chain mapping, analysis, improvement & progress measurement
- Cascade Effect: Members can proactively work with their tier 1 producers to gain access to tier 2 and 3 producers through the BEPI Platform
- By use of the amfori BEPI Self-Assessment the customer provides information and data regarding 11 environmental performance areas (e.g. energy use, greenhouse gases, chemical management)

### 環境績效

#### Amfori BEPI

- amfori BEPI 系統為參與者提供了一種基於風險的方法，用於識別和解決供應鏈中的環境影響。
- 四步法：供應鏈繪圖、分析、改進和進度測量
- 級聯效應：成員可主動與他們的 1 級生產商合作，以通過 BEPI 平台訪問 2 級和 3 級生產商
- 客戶可利用 amfori BEPI 自我評估，提供有關 11 個環境績效領域（例如能源使用、溫室氣體、化學品管理）的信息和數據

### Collaboration for Sustainable Development of Viscose (CV) Roadmap

- Continuous improvement and phased approach according to CV's sustainability criteria, e.g.:

### CV 再生纖維素纖維行業綠色發展聯盟路線圖

- 根據 CV 的可持續性標準，持續改進和採用分階段的方法，例如：



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- Decrease water usage per ton of product to 55 m<sup>3</sup>, energy consumption per ton product to 1000 kgce and total sulfur recovery rate to 87%

#### Cooperation for Assuring Defined Standards for Shoes- and Leather Goods Production e.V. (CADS)

- CADS has the purpose to secure the quality of footwear and leather goods, to distinguish footwear and leather goods whose quality is secured with a quality label, and to engage in public relations work for the manufacture and marketing of sustainable, non-toxic, environmentally compatible shoes, shoe materials and leather goods with social responsibility.
- In one of its handbooks CADS gives 13 different recommendations for the avoidance of Chromium VI in the production process and in leather products.

#### EU BAT reference documents (BREF)

- Production of Polymers (incl. viscose fibre techniques)
- Common Wastewater and Waste Gas Treatment/Management Systems in the Chemical Sector

#### Global Reporting Initiative (GRI)

- GRI in accepted format for sustainability-based reporting. A sustainability report is an organizational report that gives information about economic, environmental, social and governance performance.

#### Global Organic Textile Standard (GOTS)

- One of the world's leading processing standard for textiles made from organic fibers. It defines high-level environmental criteria along the entire organic textile supply chain and requires compliance with social criteria as well.

#### Leather Working Group (LWG)

- LWG is a this multi-stakeholder group with the objective to develop and maintain a protocol that assesses the environmental compliance and performance capabilities of leather manufacturers and to promote sustainable and appropriate environmental business practices within the leather industry.
- The subject of the protocol is on the environmental elements. It does not focus on social, ethical, health and safety, or animal health issues; nor the setting of restricted substance specifications or limits. The audit protocol includes a grading system (Gold, Silver, Bronze).

#### OutDoor Industry Association (OIA)

- The OIA represents the retail chain for products produced for outdoor recreational activities. This is a USA based organisation which has a counterpart in the EU. More on their sustainabili-

- 將每噸產品的用水量減少至 55 m<sup>3</sup>，將每噸產品的能耗降至 1000 kgce，並將總硫回收率降至 87%

#### 確保鞋類和皮革製品符合生產標準的合作協會 (CADS)

- CADS 旨在確保鞋類和皮革製品的質量，區分以質量標籤保證其質量的鞋類和皮革製品，並從事公共關係工作，以製造和銷售符合社會責任的可持續、無毒、環保鞋類、鞋材和皮革製品。
- 在其手冊中，CADS 提供了 13 項避免生產過程和皮革產品中六價鉻的不同建議。

#### 歐盟 BAT 參考文件 (BREF)

- 聚合物的生產 (包括粘膠纖維技術)
- 化學領域的常見廢水和廢氣處理/管理體系

#### 全球報告倡議(GRI)

- 可持續性報告的公認格式 GRI。可持續發展報告是一份機構報告，提供有關經濟、環境、社會和治理績效的信息。

#### 全球有機紡織品標準(GOTS)

- 全球領先的關於由有機纖維製成的紡織品的加工標準之一。它規定了整個有機紡織品供應鏈上的高級環境標準，還要求遵守社會標準。

#### 皮革工作組(LWG)

- LWG 是一個多利益相關方團體，其目標是製定和維護對皮革製造商的環境合規性和性能進行評估的方案，並促進皮革行業內可持續的適當的環境商業實踐。
- 該方案的主題是環境要素。它不關注社會、道德、健康和安全、或動物健康問題；也不制定受限物質標準或限量值。審核方案包括評級系統 (金、銀、銅)。

#### 戶外行業協會(OIA)

- OIA 代表戶外娛樂活動產品的零售連鎖店。這是一家總部位於美國的組織，在歐盟擁有相似的組織。有關其可持續發展指數以及他們與 SAC 密切合作的更多信息，請訪問 OIA 網站。



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ty index and their close collaboration with the SAC can be found on the OIA website.

### Sustainable Apparel Coalition (SAC)

- An organisation of major brands and retail organisations dedicated to improving the sustainability of textile products and production. As the authors of the HIGG Index, the SAC have provided an evolving framework for measuring and indexing sustainable practices within the textile and apparel industry.

## 10.3 Quality management systems

- **ISO 31000:** The standard provides principles, framework and a process for managing risk. It can be used by any organization regardless of its size, activity or sector. ISO 31000 cannot be used for certification purposes, but does provide guidance for internal or external audit programmes.
- **OECD Principles of Corporate Governance:** The Principles help policy makers evaluate and improve the legal, regulatory, and institutional framework for corporate governance.
- **PDCA (plan-do-check-act or plan-do-check-adjust):** an iterative four-step management method used in business for the control and continuous improvement of processes and products. It is also known as the Deming circle/cycle/wheel, Shewhart cycle, control circle/cycle, or plan-do-study-act (PDSA).
- **EFQM (formerly known as the European Foundation for Quality Management):** a non-profit membership foundation based in Brussels. EFQM is the custodian of the EFQM Excellence Model, a non-prescriptive management framework that is widely used in public and private sector organisations throughout Europe and beyond.
- **Six Sigma:** a set of tools and strategies for process improvement originally developed by Motorola in 1985. Six Sigma became well known after Jack Welch made it a central focus of his business strategy at General Electric in 1995, and today it is used in different sectors of industry.
- **Kaizen:** Japanese for "improvement", or "change for the better". It refers to philosophy or practices that focus upon continuous improvement of processes in manufacturing, engineering, and business management.
- **Quality circles:** a group of workers who do the same or similar work, who meet regularly to identify, analyze and solve work-related problems.

### 可持續服裝聯盟(SAC)

- 一家主要品牌和零售組織的聯盟，致力於提高紡織產品和生產的可持續性。作為 HIGG 指數的發明者，SAC 為測量並標引紡織品和服裝行業的可持續實踐提供了一個不斷發展的框架。

### 質量管理體系

- **ISO 31000:** 該標準提供了管理風險的原則、框架和流程。它適用於任何規模、活動或部門的組織。ISO 31000 無法用於認證目的，但能夠為內部或外部審核程序提供指導。
- **OECD 公司治理原則:** 該原則幫助政策制定者評估並改進公司治理的法律、監管和制度框架。
- **PDCA ( “策劃-實施-檢查-改進”或“策劃-實施-檢查-調整” ):** 一種迭代式四步管理方法，用於企業控制並持續改進流程和產品。它也被稱為戴明環/循環/輪、舒華特循環、控制環/循環或“策劃-實施-學習-改進”(PDSA)。
- **EFQM ( 以前稱為“歐洲質量管理基金會” ):** 一個總部設在布魯塞爾的非營利性會員制基金會。EFQM 是 EFQM 卓越模型的管理機構，該模型是一種非規定性管理框架，廣泛應用於歐洲及其他地區的公共和私營部門組織。
- **六西格瑪:** 一套最初由摩托羅拉在 1985 年開發的流程改進工具和策略。在 Jack Welch 於 1995 年將其作為通用電氣經營策略的核心焦點後，六西格瑪變得眾所周知，如今已被用於不同的工業部門。
- **Kaizen:** “改善”或“變好”的日語。它指的是聚焦於持續改善製造、工程和企業管理過程的理念或實踐。
- **質量圈:** 一組從事相同或類似工作的工人，其定期會面以識別、分析並解決與工作相關的問題。



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## 10.4 Health & Safety

- **CPSC:** Consumer Product Safety Commission, a U.S. government agency charged with protecting consumers against harmful products.
- **MAC:** Maximum Allowable Concentration for working places can be found under ILO-database on Chemical Exposure Limits.

## 健康和安全

- **CPSC:** 消費品安全委員會是一家美國政府機構，負責保護消費者免受有害產品的侵害。
- **MAC:** 工作場所的最大允許濃度可在 ILO 化學品暴露限量值數據庫中找到。



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## 11 Reference to STeP

## STeP 參考

### Exclusion criteria

排除標準

### Reference to Chemical Management STeP

化學品管理

<a href="#">4.1.2</a>	At least one person with responsibility for all chemical duties shall be named.	應指定至少一人負責所有化學品工作。
<a href="#">4.1.3</a>	All SDS for all chemicals used for processes and non-core activities have to be available.	必須提供用於過程和非核心活動的所有化學品的所有 SDS。
<a href="#">4.1.3</a>	An inventory of all chemicals used in the facility including the product name (trade name of the product or chemical identification, substance name) is required.	需要提供工廠中使用的所有化學品清單，包括產品名稱（產品的商品名稱或化學成分、物質名稱）
<a href="#">4.1.3</a>	The facility shall know the following aspects of the chemicals used, which should preferably be maintained in an inventory list or ERP.	工廠應掌握所用化學品以下幾方面的資訊，並且最好保存在庫存清單或 ERP 中。
<a href="#">4.1.4 / Annex 3</a>	If any of the chemicals mentioned in the MRSL of OEKO-TEX® STeP are used in the facility, any exposure of workers and environment to these chemicals is not permitted. This shall be described and documented or approved by the relevant authorities.	如果工廠使用了 OEKO-TEX® STeP 的 MRSL 中提到的任何化學品，則不允許工人和環境暴露於這些化學品中。有關當局應對此進行描述、記錄或批准。
<a href="#">4.1.5</a>	If any of the candidates for authorisation (Annex XIV of REACH, constantly changing list in the most current version!) is used in your production processes, any content of this chemical above 0.1% in the produced articles shall be communicated to your vendor.	如果您的生產過程中使用了任何授權候選物質( REACH 的附錄 XIV，最新版本中不斷變化的列表！)，則生產製成中任何超過 0.1% 的此類化學品的含量均應通知給銷售商。

### Reference to Environmental Performance STeP

環境績效

<a href="#">Annex 4</a>	The use of heavy petrol/gasoline in printing is not permitted.	不允許在印花中使用重油。
<a href="#">Annex 4</a>	The use of dichromate as an oxidising agent to improve colour fastness is not permitted, except on very dark shades on wool.	除羊毛中極深的色調以外，不允許使用重鉻酸鹽作為氧化劑來改善色牢度。
<a href="#">Annex 4</a>	The use of chlorinated organic solvents or fluoro chlorinated organic solvents/liquids in open systems is not permitted.	不允許在開放系統中使用氯化有機溶劑或氟氯化有機溶劑/液體。
<a href="#">Annex 4.1</a>	The use of chlorofluorocarbons (CFCs) or dichloromethane as a	禁止在泡棉生產中使用氯氟烴(CFCs)或二氯甲烷作為發泡劑。



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foaming agent in foam production is not permitted.

<b>Annex 9</b>	Precautions to avoid the formation of Chromium VI shall be taken.	應採取避免形成六價鉻的預防措施。
<b>4.2.1</b>	Required licence(s) or permit(s) for air emissions, hazardous substances, air conditioning, waste disposal/handling and utilities such as boilers, steam vessels, generators and transformers shall be available, if applicable.	在適用的情況下，應持有廢氣排放、有害物質、空氣調節、廢棄物處置/處理所必需的許可證或執照以及鍋爐、蒸汽容器、發電機和變壓器等公用設施。
<b>4.2.1</b>	Required permits for the handling of hides as raw materials for the food industry shall be available, if applicable.	如適用，應提供處理作為食品工業原料的原皮所需的許可證。
<b>4.2.1</b>	The environmental performance of the facility shall be considered at all times and particular attention shall be paid to specific issues and objectives, that are listed under Chapter "4.2.1" in the Standard.	應始終考慮工廠的環境績效，特別注意標準中第「4.2.1」節所列的具體問題和目標。
<b>4.2.1 / 4.2.5</b>	Knowledge and documentation regarding annual energy resources and consumption are required.	需要了解並記錄年能源消耗量。
<b>4.2.2</b>	Knowledge and documentation regarding annual water and consumption are required.	需要了解並記錄年用水量。
<b>4.2.2</b>	The facility shall hold the necessary license(s) or permit(s) for use of water.	工廠應持有必要的用水許可證或執照。
<b>4.2.3</b>	Knowledge about the legal standards and conditions regarding cleaning of wastewater are required.	需要了解有關廢水淨化的法律標準和條件。
<b>4.2.3</b>	Wastewater shall be cleaned according to the legal standard.	應按照法律標準對廢水進行淨化。
<b>4.2.3</b>	The facility shall hold the necessary licence(s) or permit(s) for wastewater treatment.	工廠應持有必要的廢水處理許可證或執照。
<b>4.2.3 / Annex 3.3 / Annex 5.1 / Annex 5.2</b>	Compliance with the STeP standard regarding the conditions for wastewater and, if applicable, for sludge shall be checked (direct and/or indirect discharge).	必須根據 STeP 標準對廢水（如適用）和污泥條件進行檢查（直接和/或間接排放）。
<b>4.2.4</b>	Heating plants, gas/diesel generators and production machines which cause air emissions shall be identified, located and recorded.	必須確認、定位並記錄熱電廠、汽油/柴油發電機和生產機器造成的廢氣排放。
<b>4.2.4</b>	The sequence of external testing regarding air emission of heating plants with a thermal value > 2 MW shall be at least once a year, and with	熱值>2 MW 的供熱車間的空氣排放外部檢測，每年應檢測至少一次；而對於熱值介於 0.3 MW 和 2 MW 之間的供熱車間，每三年應檢測至少一次。燃氣/柴油發電機應至少每 3 年進行一次測試。





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a thermal value between 0.3 and 2MW at least every 3 years. Gas/ diesel generators shall be tested at least every 3 years.

<a href="#">4.2.4 / 4.3</a>	Knowledge about the legal standards and conditions regarding exhaust air emissions is required.	必須了解廢氣排放的法律標準和條件。
<a href="#">4.2.4 / Annex 5.4</a>	Compliance with the STeP standard regarding emissions shall be confirmed by an external party.	必須由外部機構檢驗排放是否符合 STeP 標準。
<a href="#">4.2.5</a>	This shall be part of the company's policy as well as the common global goal to reduce GHG emissions (such as CO <sub>2</sub> , Methane, Nitrous Oxide, Ozone) by 30 % by 2030 (2010 is the baseline) and reach carbon neutrality and/or net zero emissions at around 2050.	這一條應納入企業政策，也是全球共同目標：到 2030 年 GHG 排放（例如 CO <sub>2</sub> 、甲烷、一氧化二氮、臭氧）減少 30%（以 2010 年為基準），並在 2050 年左右實現碳中和和/或淨零排放。
<a href="#">4.2.5</a>	Therefore, a system for calculating the carbon footprint (CO <sub>2</sub> eq) of the facility shall be documented and targets shall be defined.	因此，應記錄工廠碳足跡（CO <sub>2</sub> 當量）計算體系並明確目標。
<a href="#">4.2.5</a>	A project for minimizing carbon footprint (CO <sub>2</sub> eq) as well as all global warming potential chemicals as mentioned in Chapter 4.2.6, shall be planned and documented.	4.2.6 章節中提及的最小化碳足跡（CO <sub>2</sub> 當量）以及所有可能導致全球變暖的潛在化學品，應納入計劃並記錄。
<a href="#">4.2.6</a>	Cooling equipment containing Chlorofluorocarbons (CFCs) or brominated fluorohydrocarbons shall not be used.	不得使用含有氯氟烴(CFC)或溴化氟代烴的冷卻設備。
<a href="#">4.2.8</a>	All on-site waste disposal and landfill is prohibited if a risk assessment is not available and proper measures are not taken or approved by local authorities.	如果風險評估不可用，並且未採取適當的措施，或措施未獲地方當局的批准，禁止所有的現廢棄物處理和垃圾填埋。
<a href="#">4.2.8</a>	Improper disposal of hazardous substances is not permitted.	不允許對有害物質進行不當處置。
<a href="#">4.2.8</a>	Waste storage areas shall be protected from weather influence and shall be fire proof.	廢棄物存儲區域必須免受天氣影響和防火。
<a href="#">4.2.8 / 4.2.9</a>	Measures have to be taken to prevent all release from chemicals into the environment, water and ground.	必須採取措施防止化學品洩漏到環境中、水和地面上。
<a href="#">4.2.9</a>	Containers, boxes and filling stations of chemicals have to be marked with the respective warning symbols and protective measures.	化學品的容器、包裝盒和填充站必須標有相應的警告標誌和防護措施。
<a href="#">4.2.9</a>	Highly flammable liquids like methanol, isopropyl alcohol etc. that are stored in metal drums may form po-	甲醇、異丙醇等儲存在金屬桶裡的高度易燃液體可能會在空氣中形成有可能爆炸的混合物，因此使用時應當接



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	tentially explosive mixtures in the air and therefore shall be earthed whilst in use. Flammable solids (e.g. Sodium Hydrosulphite) shall be stored on a dry place and protected against water, and, the drums shall be closed at all times.	地。易燃固體（例如連二亞硫酸鈉）應儲存在乾燥處並防水，並且桶應時刻保持封閉狀態。
<a href="#">4.2.9</a>	The facility shall be able to demonstrate that all chemical substances are stored securely in rooms or areas designed for the purpose.	工廠必須能夠證明，所有化學物質都已安全地儲存在專用房間或區域中。
<a href="#">4.2.11</a>	Records of any incidents with environmental impact shall be available.	必須提供具有環境影響的所有事件的記錄。
<a href="#">4.2.11</a>	A dedicated facility emergency response team, which deals with all chemical and environmental pollution incidents, shall be assigned and trained regularly.	應安排專門的工廠應急小組來負責處理所有化學和環境污染事故，並定期對其進行培訓。
<b>Reference to STeP</b>	<b>Environmental Management System</b>	<b>環境管理體系</b>
<a href="#">4.3.1</a>	An Environmental Management System shall exist.	必須具有環境管理體系。
<a href="#">4.3.10.1</a>	A environmental assessment of all direct and indirect environmental impacts of activities, products and performances shall be carried out and shall be documented. Once a year or in case of major changes in the production in terms of environmental impact.	所有對環境產生直接或間接影響的活動、產品和績效都應進行環境評估並妥善記錄。一年評估一次，或者在生產對環境產生的影響發生重大變化時開展評估。
<a href="#">4.3.10.1</a>	The facility shall have procedures for recording all legal, regulatory and other policy requirements relating to the environmental aspects of the activities, products and services.	工廠必須建立程序，用於記錄與活動、產品和服務的環境因素有關的所有法律、監管及其他政策規定。
<a href="#">4.3.10.1</a>	The environmental assessment shall be updated at least once a year or in case of major changes in the production in terms of environmental impacts.	應至少一年更新一次環境評估，或者在生產對環境產生的影響發生重大變化時更新評估。
<a href="#">4.3.10.2</a>	An audit/program to regularly assess the Environmental Management System shall be set in place.	應具備定期評估環境管理體系的審核程序。
<a href="#">4.3.10.2</a>	Internal EMS audits shall be performed annually.	每年進行內部環境管理審核。
<a href="#">4.3.11.7</a>	A site plan of the facility regarding all chemicals shall exist, indicating all sections where substances are delivered, stored and made available for use.	工廠應制定有關所有化學品的場地規劃，指明物質交貨、儲存和可供使用的所有區域。



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Reference to Social Responsibility  
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社會責任

<a href="#">4.4.3</a>	A code of conduct or policy that addresses the ILO's eight core conventions of fundamental human rights and the UN Declaration of Human Rights regarding discrimination, forced labour, child labour, remuneration, freedom of association/collective bargaining, working hours, health and safety, and harassment and abuse shall be implemented.	必須實施國際勞工組織的 8 個基本人權核心公約和聯合國有關歧視、強迫勞動、童工、報酬、自由結社/集體談判、工作時間、健康和 safety、騷擾和虐待的行為準則或政策。
<a href="#">4.4.3</a>	The facility shall have a written social policy and/or code of conduct including all measures, obligations, targets and procedures for ensuring and managing social responsibility.	工廠必須制定包括所有措施、責任、目標、過程在內的相關書面政策和/或行為準則來保障和管理其社會責任。
<a href="#">4.4.3</a>	At least one person with responsibility for all aspects of the social responsibility module shall be named.	至少應任命一名員工負責處理社會責任模塊各個方面。
<a href="#">4.4.3</a>	The responsible person for social compliance shall be trained regularly towards all aspects of the "Social Responsibility" module including any risks in this regard.	社會合規負責人必須定期接受培訓，瞭解「社會責任」模塊的各個方面，包括社會合規方面的任何風險。
<a href="#">4.4.3</a>	This responsible person shall hold regular training sessions for all employees on the social responsibility aspects (e.g. Code of Conduct) and keep training records.	負責人應面向所有員工定期開展以社會責任（例如行為準則）為主題的培訓講座，並保留培訓記錄。
<a href="#">4.4.4 / 4.4.6</a>	The apprentice programme shall comply with all applicable local legal requirements.	見習計劃必須遵守所有適用的當地法律要求。
<a href="#">4.4.6</a>	Workers under the age of 15 shall not be employed and the company shall not support any recruitment of workers under the age of 15.	不得僱用未滿 15 歲的工人，公司不得支持招聘任何未滿 15 歲的工人。
<a href="#">4.4.6</a>	Special workplace conditions for young workers shall be implemented in the policy/management system.	企業須已建立針對年輕工人特殊工作條件的政策/管理體系。
<a href="#">4.4.6</a>	Risk assessment of the ongoing hazard identification at workplace shall be performed on a regular basis.	應定期進行工作場所危險源辨識的風險評估。
<a href="#">4.4.7</a>	The company shall comply with all applicable legal requirements on minimum wage, severance pay and governing benefits.	公司必須遵守有關最低工資、遣散費和管理效益的所有適用法律規定。
<a href="#">4.4.7</a>	The facility shall define a strategy or roadmap how to achieve living wage for all employees.	工廠應制定策略或路線圖，確保所有員工的收入都達到生活工資水準。
<a href="#">4.4.7</a>	Wages shall be paid on time.	薪酬必須按時支付。



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<a href="#">4.4.7</a>	Social insurance shall be provided for all workers.	應為所有工人提供社會保險。
<a href="#">4.4.7</a>	All staff at the facility shall be paid a wage for their work. In minimum the minimum wage or, if higher, the industrial sector or collectively agreed wage shall be paid. Wages and non-wage benefits (including piecework rate) shall comply with all the legal requirements for wages, severance payments and non-wage benefits.	工廠的所有工作人員都應獲得相應酬勞。至少應獲得最低工資，或按行業內及共同商定的工資（以較高者為準）發放。工資和非工資福利（包括計件工資）應符合有關工資、遣散費和非工資福利的所有法規要求。
<a href="#">4.4.7 / 4.4.8</a>	Work performed shall be based on recognised employment agreements.	完成的工作必須基於確認的僱用協議。
<a href="#">4.4.7</a>	Any wage deductions shall be recorded in writing in the facility personnel file and workers must be informed about any deductions in an understandable manner.	任何工資扣減應以書面形式記錄在工廠的人事檔案中，並且必須以易於理解的方式將任何扣減情況告知工人。
<a href="#">4.4.8</a>	A written labour contract shall be provided to each employee. The employee shall receive the original contract on the first day of work at the latest. The labour contract shall comply with all applicable legal requirements.	必須向每位員工提供書面勞動合約，員工最遲應在工作首日收到勞動合約原件。勞動合約必須符合所有的適用法律規定。
<a href="#">4.4.8</a>	The labour contract shall be written in workers language. It shall be understood by the workers.	勞動合約必須以員工的語言進行書寫。合約內容應該被員工所理解。
<a href="#">4.4.8</a>	The company shall follow the corresponding legal requirements for maternity protection.	公司應遵守相應的生育保障法律要求。
<a href="#">4.4.8</a>	The facility shall have written recruitment and termination policy and a written policy on development programmes and financial benefits.	工廠應制定書面招聘和解聘政策以及書面發展計劃和財務效益政策。
<a href="#">4.4.8</a>	Employees in the HR department and other related departments shall receive regular training to ensure compliance with this policy and regional and national legal requirements.	人力資源部門及其他相關部門的員工應定期接受培訓，確保遵守該政策以及當地和國家法律要求。
<a href="#">4.4.9</a>	The company shall comply with all applicable legal requirements regarding the right to freedom of association and collective bargaining.	公司必須遵守關於自由結社和集體談判權的所有適用法律規定。
<a href="#">4.4.9</a>	The company shall allow the workforce to form, join and organise unions for all employees.	公司必須允許其員工為全體員工建立、加入和組織工會。
<a href="#">4.4.9</a>	The company shall explicitly promote on alternative means of representing workers in countries whose national laws prohibit or impede union organ-	在國家法律禁止或阻礙組織工會以促進和維護工人或僱員利益的國家，公司應明確推廣代表工人的其他方式。



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izing to promote and defend the interests of workers or employees.

<a href="#">4.4.10</a>	The facility shall implement a formal communication system that includes an internal grievance system with a procedure where workers can communicate their complaints to the responsible person within the facility (e.g. complaints box). The system shall include corrective actions describing types of complaints, analysis, remediation and actions taken.	工廠應實施正規的溝通制度，包括內部申訴制度，工人可以通過該程序將其投訴傳達至工廠負責人（例如投訴箱）。該制度應當包含說明投訴類型、分析、整治方案和行動的糾正措施。
<a href="#">4.4.10</a>	Additionally to the internal grievance mechanism the facility shall provide a mechanism to all workers where they can communicate their complaints externally.	除內部申訴機制之外，工廠應當為所有工人提供外部投訴機制。
<a href="#">4.4.11</a>	The company shall comply with all applicable legal requirements regarding working hours (regular and overtime). Regular working hours shall not exceed 48 h per week. Overtime shall not exceed 12 h per week.	公司應遵守所有適用於工作時間（正常工作時間和加班）的法規要求。每周正常工作時間不得超過 48 小時。每週加班時間不得超過 12 小時。
<a href="#">4.4.11</a>	The company shall comply with all applicable legal requirements regarding time off work (breaks, after finishing work etc.).	公司必須遵守有關下班時間工作（休息時間，完成工作後的時間等）的所有適用法律。
<a href="#">4.4.11</a>	Appropriate breaks during work periods shall be guaranteed.	必須確保在工作期間有適當的休息。
<a href="#">4.4.11</a>	Overtime shall be voluntary unless it is regulated in a collective bargaining agreement.	除非在勞資協議中另有規定，否則加班必須堅持自願原則。
<a href="#">4.4.11</a>	The company shall nominate a responsible person for all time monitoring key figures and records who has knowledge of the legal provisions.	公司應任命一名人員，負責隨時監控關鍵數字和記錄，並了解相關法律規定。
<a href="#">4.4.11</a>	A designated trusted person shall be made available to review anonymous complaints from workers.	應指定可信賴的專員負責審查工人的匿名投訴。
<a href="#">4.4.12</a>	The company shall comply with all applicable legal requirements governing workplace harassment or abuse.	公司必須遵守有關工作場所騷擾或虐待的所有適用法律規定。
<a href="#">4.4.12 / 4.4.14</a>	Disciplinary actions such as corporal punishment, mental or physical coercion, or verbal attacks are not tolerated.	不得實施體罰、精神或肉體脅迫，或言語攻擊等紀律性措施。
<a href="#">4.4.13</a>	The company shall comply with all applicable laws governing discrimination.	公司必須遵守有關歧視的所有適用法律。



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<a href="#">4.4.13</a>	Wage deductions shall not be done for disciplinary purpose.	不能因為紀律問題扣除工資。
<a href="#">4.4.14</a>	The company shall not apply any forced, bonded, indentured and prison labour.	公司必須遵守有關強迫、契約和監獄勞工的所有法律要求。
<a href="#">4.4.14</a>	The company shall guarantee that workers retain possession or control of their original working contracts, identity cards, work permits and travel documents.	公司應保證工人保管或管理其工作合約原件、身份證、工作許可證和旅行證件。
<a href="#">4.4.14</a>	The company's policy shall strictly prohibit the collection of deposits or security payments at recruitment and during further employment.	在招聘及僱用期間，公司嚴禁收取押金及保證金。
<a href="#">4.4.15</a>	Free drinking water shall be provided to all employees.	必須向所有員工提供免費的飲用水。
<a href="#">4.4.15</a>	The company shall comply with all applicable legal requirements for sanitary facilities, canteen/eating areas and dormitories (if applicable).	公司必須遵守有關衛生設施、食堂/就餐區和宿舍(如適用)的所有適用法律規定。
<a href="#">4.4.15</a>	The company shall nominate at least one responsible person for all needs and tasks to ensure well maintained, safe and clean changing rooms, sanitary facilities, canteen/eating areas and dormitories. This responsible person shall be notified to employees as the contact person for these matters, and reports directly to management.	公司應任命至少一位人員，負責確保更衣室、衛生設施、食堂/就餐區和宿舍得到妥善維護並保持其安全和整潔。員工應知悉，在處理這些事項時聯繫該負責人，由此負責人直接向管理層報告。
<a href="#">4.4.15</a>	Sanitary facilities, particularly toilets and washrooms, shall be made permanently accessible in sufficient quantity to all workers in the facility areas and dormitories areas.	必須在廠區和宿舍區為所有員工提供足夠量的永久性衛生設施，尤其是廁所和洗手間。
<b>Reference to STeP</b>	<b>Quality Management</b>	<b>質量管理</b>
<a href="#">4.5.1</a>	A Quality Management System must be available.	必須具備質量管理體系。
<a href="#">4.5.3.6</a>	An audit/program to regularly assess the Quality Management System shall be set in place.	應制定定期評估質量管理體系的審核/計劃。
<a href="#">4.5.3.6</a>	Internal QMS audits shall be conducted annually.	內部審核應每年進行。
<a href="#">4.5.5.2</a>	Any purchasing, outsourcing or subcontracting of goods, materials or services related to services or products shall be controlled. It shall be ensured that all purchased goods/services meet all specified requirements.	任何與服務或產品有關的材料和服務的外包、分包等採購行為均應受控。採購的所有貨物/服務都必須滿足所有指定的要求。



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<a href="#">4.5.5.2</a>	Suppliers and supply chains shall be assessed and monitored.	評估和監督供應商和供應鏈。
<a href="#">4.5.5.2</a>	A description of planned purchases shall be compiled to ensure that all requirements in this regard are met.	應編製計劃採購說明，確保滿足所有相關要求。
<a href="#">4.5.5.2</a>	Suppliers, sub-suppliers, contractors and subcontractors shall be involved in the process of improving social working conditions, safety and environmental matters and the measures in this regard.	供應商、次級供應商、承包商和分包商應參與改進社會工作條件、安全性、環境事項以及相關措施。
<a href="#">4.5.5.2</a>	Suppliers, sub-suppliers, contractors and subcontractors shall establish and maintain appropriate procedures for selecting sub-contractors based on their ability to meet the STeP requirements, maintain appropriate documentation for meeting the STeP requirements.	供應商、次級供應商、承包商和分包商應根據下級分包商滿足 STeP 要求的能力制定和維護適當的甄選流程，並維護滿足 STeP 要求的記錄。
<a href="#">4.5.5.2</a>	Suppliers, sub-suppliers, contractors and subcontractors shall provide training options for outworkers in relation to personal protection, workers' rights and access to employee information in the facility.	供應商、次級供應商、承包商和分包商應從個人保護、工人權利和工廠獲取員工資訊方面為外包工人提供培訓選項。
<a href="#">4.5.5.2</a>	As a minimum requirement, the supplier, sub-supplier and/or contractor, sub-contractor shall sign the OEKO-TEX® STeP Code of Conduct for supplier, which can be found in Annex I.	供應商、次級供應商和/或承包商、分包商應簽署 OEKO-TEX® STeP 供應商行為準則(詳見附錄 1)，這是最低要求。
<a href="#">4.5.5.3</a>	It shall be possible to trace back to the source materials (textile/leather raw material, chemicals etc.) of the finished product(s) according to the documentation.	應該能夠根據文件記錄追溯到成品的原材料(紡織品/皮革原料、化學品等)。
<a href="#">4.5.5.3</a>	Services/products shall be identifiable at all times and tracked (traceability) throughout all stages of production.	服務/產品應始終可以辨認，並且應在生產的所有階段進行跟蹤(可追溯性)。
<a href="#">4.5.7</a>	A procedure to handle corrective action shall be implemented.	應執行糾正措施。
<a href="#">4.5.9.3</a>	Downs and feathers shall only be sourced from suppliers who can prove that the poultry has never been live plucked or force fed during farming.	羽絨和羽毛只能由能夠證明這些家禽在養殖過程中從未被活摘羽毛或強制餵食的供應商提供。
<a href="#">4.5.9.3</a>	The origin of the processing hide and skins is expected to be known and the source shall be in accordance to CITES (Convention on International Trade in Endangered Species of Wild	生皮的來源必須已知，且應符合 CITES (《瀕危野生動物種國際貿易公約》) 和其他法律要求。



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Fauna and Flora) and other legal requirements.

<a href="#">4.5.9.3</a>	A wood sourcing policy which considers at least 25% of pulp fibres or pulp that comes from such sources, including the amount of recycled materials (e.g. cotton scraps), shall be defined.	應制定木材採購政策，其中應考慮至少 25% 的紙漿纖維或紙漿來自此類來源，包括應確定回收材料（例如棉花廢料）的數量。
<a href="#">4.5.10</a>	A risk assessment shall be carried out in regular intervals.	必須定期進行風險評估。
<b>Reference to STeP</b>	Health and Safety	健康和安全
<a href="#">4.6.1 / 4.6.3.2</a>	An emergency plan regarding fire must exist.	必須建立火災應急預案。
<a href="#">4.6.1 / 4.6.4</a>	A health and safety management system shall be available.	應制定健康與安全管理體系。
<a href="#">4.6.1 / 4.6.6</a>	Compliance with the legal requirements shall be guaranteed.	應保證符合法規要求。
<a href="#">4.6.2.1</a>	Machines shall have safety features (guards, covers, hood etc.) for the prevention of accidents based on risk assessment.	機器應具有基於風險評估的安全部件（防護裝置、遮蓋裝置、覆蓋裝置等），以防止意外發生。
<a href="#">4.6.2.2</a>	Working areas with high noise have to be marked permanently.	必須永久標記高噪音工作區域。
<a href="#">4.6.2.4 / Annex 4.1</a>	Sand Blasting in open systems is prohibited and in closed systems restricted.	禁止在開放系統中進行噴砂作業，並限制在封閉系統中進行噴砂作業。
<a href="#">4.6.2.5</a>	In the case of chemical risks and chemicals that can cause allergic reactions (e.g. dyestuffs containing chromium), technical control equipment such as PPE (e.g. gloves, goggles, aprons, masks, etc.) shall be provided.	就化學品風險和可引起過敏反應的化學品（例如含鉻染料）而言，須提供 PPE 等技術控制裝備（例如，手套、護目鏡、圍裙、防毒面具等）。
<a href="#">4.6.2.5</a>	Tanks and containers that contain hazardous chemicals (e.g. acids or caustic soda) shall be properly marked with warning symbols (e.g. “Wear Goggles, Gloves”, etc.).	必須用警告符號正確標示含有危險化學品（例如，酸或苛性鈉）的罐和容器（例如，“佩戴護目鏡、手套”等）。
<a href="#">4.6.2.5</a>	Chemicals shall be separated based on their hazard level to prevent chemical reactions to the greatest extent possible.	應根據化學品的危險程度將其隔開，盡可能防止發生化學反應。
<a href="#">4.6.2.5</a>	All responsible persons have to be trained in handling chemicals.	所有負責人員都必須接受化學品處理培訓。
<a href="#">4.6.2.5</a>	All persons working with chemicals shall be trained related to the chemical management system and relevant topics (such as legal aspects, use	所有需要使用化學品的工作人員都應接受化學品管理體系和相關主題（例如法律法規、化學品使用、儲存、環境和安全處理）的培訓。





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of chemicals, storage, environmental and safe handling etc.).

<a href="#">4.6.2.5</a>	In case of using volatile organic compounds (VOC, def. See Annex 12.1) in the production processes, measures must be taken to limit the exposure of workers to VOC in the workplaces.	如果在生產過程中使用揮發性有機化合物 (VOC, 定義見附件 12.1), 則必須採取措施限制工人在工作場所接觸揮發性有機化合物。
<a href="#">4.6.2.7</a>	If there is any risk related to heat stress in hot environments, measures shall be defined and introduced in the form of adequate clothing, regulated working hours with defined breaks, ventilation of rooms and, if possible, air conditioning of rooms.	如果高溫環境中存在任何與熱應激相關的風險, 應確定並採取相應的措施, 包括適當的防護服、規定的工作時間和休息時間、室內通風和室內空調 (如有可能)。
<a href="#">4.6.2.8</a>	Working sections like high noise area, dust emission area, chemical handling places (e.g. filling up, weighing, mixing, transport etc.) and maintenance workshop areas where PPE is required, shall be permanently marked with the respective warning symbol(s).	高噪音區域、粉塵污染區域、處理化學品區域 (例如灌裝、稱重、混合、運輸等) 以及要求穿戴 PPE 的維修車間應該始終標有對應的警示標誌。
<a href="#">4.6.2.8</a>	All workers shall wear the required PPE at relevant workplaces.	相關工作場所的所有工人應該按規定穿戴 PPE。
<a href="#">4.6.3</a>	The facility shall classify areas where hazardous explosive atmospheres may occur into zones.	工廠應當劃分可能產生危害性爆炸性環境的區域。
<a href="#">4.6.3</a>	Instructions in case of fire, emergency numbers and GHS pictograms shall be published at the storage area of gases in vessels.	應在氣瓶儲存區張貼火災說明、緊急聯繫電話和 GHS 標誌。
<a href="#">4.6.3.1</a>	If the buildings are changed significantly or if the designated use of a building is to be changed, a static expert shall be involved to ensure the building structure is suitable for the designated use.	如果建築物發生明顯變化或要更改建築物的用途, 應請靜力學專家確保建築結構適合指定的用途。
<a href="#">4.6.3.1</a>	Critical installations such as pressure boilers shall be inspected at least annually by an external testing body or engineer.	每年須由外部測試機構或工程師至少檢查一次壓力鍋爐等重要設施。
<a href="#">4.6.3.1</a>	All structures within the facility shall be suitable and safe for the planned use and operation. Any located and/or reported weak points, damages, etc. shall be identified and documented and measures have to be taken accordingly.	工廠內的所有構造都應確保安全, 並且適用於計劃用途和生產。必須確定並記錄任何已發現和/或報告的薄弱點、損壞等, 並採取相應措施。
<a href="#">4.6.3.2</a>	Escape routes and emergency exits shall be inspected at least every month to ensure that they are highlighted and freely accessible.	每月須至少檢查一次逃生路線和緊急出口, 確保它們標識醒目並可自由進出。



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<a href="#">4.6.3.2</a>	Emergency plans incl. Instructions concerning fire, accidents, natural hazards and chemical hazards shall exist.	必須制定應急計劃，包括關於火災、事故、自然災害和化學危害的說明。
<a href="#">4.6.3.2</a>	Emergency equipment shall be kept operational and freely accessible.	應急設備應確保正常運行並易於取用。
<a href="#">4.6.3.2</a>	A staff member shall be nominated and trained appropriately in fire safety to deal with any related problems.	必須指定一名經過消防安全培訓的工作人員處理相關問題。
<a href="#">4.6.3.2</a>	Access to first aid equipment shall be guaranteed at all times in case of any accident.	必須保證在發生任何事故時，隨時能夠使用應急設備。
<a href="#">4.6.3.2</a>	Emergency and evacuation training sessions shall be held every three years at minimum.	應至少每三年開展一次緊急和疏散培訓課程。
<a href="#">4.6.3.2</a>	Escape routes and emergency exits have to be defined and properly marked. Emergency escape route plans (EFEP) shall be posted on various places in the facility.	必須設有逃生路線和緊急出口，並作適當標記。工廠內的各個場所都應張貼緊急逃生路線圖（EFEP）。
<a href="#">4.6.3.2</a>	Emergency equipment shall be checked every year.	應急設備必須每年檢測。
<a href="#">4.6.3.2</a>	Escape routes and emergency exits must be unobstructed and freely accessible. All emergency "EXIT" doors must remain unlocked from the inside at all times during working hours.	必須保持逃生路線和緊急出口通暢並可自由進出。在工作時間內，必須保持隨時可從裡面打開所有的緊急“出口”門。
<a href="#">4.6.3.2</a>	All platforms, elevator shafts and stairs shall be secured to prevent workers from falling.	應加固所有平台、電梯井道、樓梯，以防工人跌落。
<a href="#">4.6.3.2</a>	All switch cabinets shall be closed at any time.	所有配電箱應該始終保持關閉的狀態。
<a href="#">4.6.4</a>	Risk assessment of the ongoing hazard identification at workplace shall be performed on a regular basis.	應定期進行工作場所危險源辨識的風險評估。
<a href="#">4.6.5</a>	An audit/program to regularly assess the Health and Safety Management System shall be set in place.	應制定定期評估健康和安全管理體系的審核/計劃。
<a href="#">4.6.5</a>	Sufficient first aid and fire fighting personnel shall be present during production and maintenance operation.	生產和維護操作期間必須有足夠的急救和消防人員在場。
<a href="#">4.6.5</a>	The management shall define and document a chart of all the employees responsible for health and safety that identifies at least the following positions: department manager, health and safety manager, person	管理層必須確定和記錄負責健康和安全的全體員工圖表，該圖表至少標明以下職位：部門經理、健康和安全管理、緊急情況和消防設備負責人



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responsible for emergencies, fire extinguishing equipment

**4.6.5.1**

Internal H&S audits shall be performed annually.

每年進行內部職業健康和安全管理審核。

**4.6.5.1**

Records of health and safety incidents and corrective and preventive action have to be kept.

必須保持記錄職業健康和安全管理事故以及糾正和預防措施。



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## 12 Annex

## 附錄

### Terms and definitions

### 名詞和定義

#### 12.1 Abbreviations used in OEKO-TEX® STeP and their explanations

#### OEKO-TEX® STeP 中使用的縮略語及其說明

**ATEX** The ATEX directives are two EU directives describing the minimum safety requirements for workplaces and equipment used in explosive atmospheres. The name is an initialisation of the French term Appareils destinés à être utilisés en ATmosphères EXplosibles (French for "Equipment intended for use in explosive atmospheres"). 'Equipment' means machines, apparatus, fixed or mobile devices, control components and instrumentation thereof and detection or prevention systems which, separately or jointly, are intended for the generation, transfer, storage, measurement, control and conversion of energy and/or the processing of material and which are capable of causing an explosion through their own potential sources of ignition. 'Protective systems' means devices other than components of equipment which are intended to halt incipient explosions immediately and/or to limit the effective range of an explosion and which are separately made available on the market for use as autonomous systems. 'Explosive atmosphere' means a mixture with air, under atmospheric conditions, of flammable substances in the form of gases, vapours, mists or dusts in which, after ignition has occurred, combustion spreads to the entire unburned mixture. 'Potentially explosive atmosphere' means an atmosphere which could become explosive due to local and operational conditions.

ATEX 指令是兩個歐盟指令，描述了在爆炸性環境中的工作場所和設備的最小安全要求。該名稱最初來源於法語詞彙 Appareils destinés à être utilisés en ATmosphères Explosibles (法語中“用於爆炸性環境中的設備”的意思)。“設備”指機器、器具、固定或行動裝置、控制元件和儀錶檢測或預防系統，分別或共同用於產生、轉移、儲存、測量、控制和轉換能量和/或加工能夠通過自身潛在的引燃源造成爆炸的材料。“保護系統”指除設備的元件外，旨在制止突發爆炸和/或限制爆炸的作用範圍的裝置，並在市場上作為自動系統使用。易爆氣體環境“指與空氣混合，在大氣條件下的易燃物質，在點燃後以氣體、蒸汽、薄霧或灰塵的形式，燃燒擴散到整個未燃混合物中。“潛在爆炸性環境”指在當地和操作條件下可能發生爆炸的環境。

**AOX – emission** Halogenated organic compounds as being lowly biodegradable and toxic, can spoil water for many years.

鹵代有機化合物的生物降解性差，有毒性，可長年損害水質。

**BAT** Best Available Technologies - BAT can apply to processing, chemical and information technologies.

可應用於加工、化工和信息的最佳可用技術。

**CAS No** CAS Registry Numbers are unique numerical identifiers assigned by the

CAS 登記號是由化學文摘社頒佈的公開科學文獻中描述的所有化學物質的獨有的數字標識 (目前包括 1957



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Chemical Abstracts Service to every chemical described in the open scientific literature (currently including those described from at least 1957 through the present) and include elements, isotopes, organic and inorganic compounds, ions, organometallics, metals, nonstructural materials (aka “UVCBs”, i.e. materials of unknown, variable composition or biological origin). They are also referred to as CAS RNs and CAS numbers.

年至今的化學物質), 包括元素、同位素、有機和無機化合物、離子、有機金屬化合物、金屬、非結構材料(又名“UVCB”, 即結構可變的未知材料或生物材料)。它們也被稱為 CAS RN 和 CAS 編號。

<b>CMS</b>	Chemical Management System – a system that describes processes used to manage chemical selection, handling, storage and use within a facility.	化學品管理體系-描述了管理化學品篩選、處理、存儲和使用的過程。
<b>EC No</b>	European Commission number for chemicals within EU regulatory schemes. The European Commission number, or EC number, also known as EC No., EINECS No. and EC#, is a unique seven-digit identifier that is assigned to chemical substances for regulatory purposes within the European Union by the regulatory authorities. The list of substances with an EC number is called the EC Inventory. This is comparable to CASRN in the USA and chemical substances can have both a CASRN and an EINECS number.	歐盟監管方案內的化學物質歐盟委員會編號。歐盟委員會編號或 EC 編號, 也記為 EC No.、EINECS No.和 EC#, 是監管當局為化學物質指定的唯一 7 位數標識符, 便於監管歐盟內的化學物質。具有 EC 編號的物質列表被稱為 EC 目錄表。它相當於美國的 CASRN, 化學物質可同時具有 CASRN 和 EINECS 編號。
<b>EINECS number</b>	see EC Number	見 EC 編號
<b>EMS</b>	Environmental Management System - The part of the overall management system which determines the environmental policy, and includes the organizational structure, responsibilities, procedures, processes and resources for implementing the environmental policy.	環境管理體系-整個管理體系的一部分, 致力於確定環境政策, 包括組織結構、職責、程序, 及實施環境政策的過程和資源。
<b>GHS</b>	The Globally Harmonized System of Classification and Labelling of Chemicals or GHS is an internationally agreed-upon system, created by the United Nations. It is designed to replace the various classification and labelling standards used in different countries by using consistent criteria for classification and labelling on a global level.	全球化學品統一分類和標籤制度或 GHS 是由聯合國創建的國際公認的系統。它旨在通過在全球範圍內使用一致的分類和標籤標準來取代不同國家使用的各種分類和標籤標準。
<b>GHG</b>	Greenhouse Gases (GHG) are gaseous components of the atmosphere that absorb solar energy re-lected	溫室氣體 ( GHG ) 是大氣中的氣體成分, 通過吸收地球表面以紅外線輻射形式反射的太陽能, 從而導致全球變暖和氣候變化。地球大氣中的主要溫室氣體是水蒸氣



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from the earth's surface as infrared radiation, which can lead to global warming and climate change. The primary greenhouse gases in Earth's atmosphere are water vapor (H<sub>2</sub>O), carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O) and ozone (O<sub>3</sub>). Other global warming potential chemi-cals such as CFC's, HCFC's also belong into this group.

( H<sub>2</sub>O )、二氧化碳 ( CO<sub>2</sub> )、甲烷 ( CH<sub>4</sub> )、一氧化二氮 ( N<sub>2</sub>O )和臭氧 ( O<sub>3</sub> )。其他可能導致全球變暖的化學物質也歸於此類，例如氟氯化碳、氟氯烴等。

<b>HAP</b>	Hazard Air Pollution is the presence of substances in the atmosphere that are harmful to human health, or cause damage to the climate or to materials. There are many different types of hazard air pollutants, such as gases like ammonia, carbon monoxide, sulphur dioxides, nitrous oxides, methane and chlorofluorocarbons), particulates (both organic and inorganic) and biological molecule.	有害空氣污染物是指大氣中存在的對人類健康有害的物質，或對氣候或材料造成破壞的物質。有害空氣污染物分為很多類型，如氨、一氧化碳、二氧化硫、一氧化二氮、甲烷和氟氯化碳等氣體；(有機和無機)微粒物質和生物分子。
<b>H&amp;S</b>	Health and Safety Performance and Management System (also: Occupational Health and Safety) – a management system designed to measure and improve the safety and health of stakeholders of an enterprise. The focus is normally applied to factory operations but also pertains to product safety.	健康與安全績效和管理體系 (也稱為：職業健康與安全) 是一種管理體系，旨在衡量並改善企業利益相關方的安全與健康。其焦點通常在於工廠經營，但是也與產品安全有關。
<b>ILO</b>	The International Labour Organization (ILO) is a United Nations agency dealing with labour issues, particularly international labour standards and decent work for all. Almost all (185 out of 193) UN members are part of the ILO.	國際勞工組織(ILO)是一個處理勞工問題(特別是國際勞工標準和人人享有體面工作)的聯合國機構。幾乎所有(193個國家中的185個)聯合國成員都是ILO的成員。
<b>ISO 26000</b>	ISO 26000 emphasizes that community involvement and community development are both integral parts of sustainable development. ISO 26000 provides guidance on principles and seven issues. It also indicates that community involvement helps to contribute, at a local level, to the achievement of the Millennium Development Goals (now followed by the Sustainable Development Goals).	ISO 26000 強調社區參與和社區發展都是可持續發展的組成部分。ISO 26000 就相關原則和七個核心主題提供指導。ISO 26000 還指出，社區參與有助於在地方層面促進實現千禧年發展目標(如今緊隨其後的是實現可持續發展目標)。
<b>ISO 50001</b>	ISO 50001 - Energy Management System enables organisations to establish systems and processes necessary to continually improve their energy performance, including energy efficiency, use and consumption. Following should be installed:	ISO 50001 能源管理體系使組織能夠建立必要的體系和程序，以持續改善其能源績效，包括能源效率、能源使用和消耗。必須制定以下各項： -制定更有效地利用能源的政策 -確定目標以滿足政策要求 -利用數據來更好地理解 and 做出有關能源使用的決策 -測量結果



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- Develop a policy for more efficient use of energy
  - Fix targets and objectives to meet the policy
  - Use data to better understand and make decisions about energy use
  - Measure the results
  - Review how well the policy works, and
  - Continually improve energy management
- It can be part of the Environmental Managementsystem

-審核政策的運作情況，以及  
 -持續改進能源管理  
 成為環境管理體系的一部分

<b>Lux (lx)</b>	The lux (symbol: lx) is the SI unit of luminance and luminous emittance, measuring luminous flux per unit area. It is equal to one lumen per square meter.	勒克斯（符號 lx）是亮度和發光度的國際單位，用於測量每單位面積的光通量。它等於 1 流明每平方米。
<b>NGO</b>	Non-Governmental Organizations are legally constituted corporations created by natural or legal people that operate independently from any form of government.	非政府組織是由自然人或法人依法成立的組織，其營運獨立於任何政府組織。
<b>NOx</b>	Nitrogen monoxide + Nitrogen dioxide – known air pollutants and a greenhouse gas caused by the oxidation of fossil fuels.	一氧化氮+二氧化氮-由化石燃料的氧化作用引起的已知空氣污染物和溫室氣體。
<b>OECD</b>	The Organization for Economic Cooperation and Development is an international economic organization of 34 countries founded in 1961 to stimulate economic progress and world trade.	經濟合作與發展組織是成立於 1961 年的國際經濟組織，有 34 個成員國，旨在刺激經濟發展和世界貿易。
<b>PPE</b>	Personal Protection Equipment – examples are gloves or aprons, protective glasses, respirators, etc.	個人防護設備- 包括手套或圍裙，防護眼鏡，防毒面具等。
<b>QMS</b>	Quality Management System – the management system describing the processes used to maintain and control all aspects of quality as it pertains to the operations and products of an enterprise.	質量管理體系-該管理系統描述了維護和控制企業營運和產品各方面質量的過程。
<b>REACH</b>	Registration, Evaluation, Authorization and Restriction of Chemicals is a European Union Regulation. REACH addresses the production and use of chemical substances and their potential impacts on both human health and the environment.	化學品的註冊、評估、授權和限制，是一項歐盟法規。REACH 法規涉及化學物質的生產和使用及其對人類健康和環境的潛在影響。
<b>RSL</b>	Restricted Substance List - a list of chemicals, auxiliaries and other substances that may not be used in textile and leather production. It includes limit values for concentrations	受限物質清單 - 不得用於紡織品生產的化學品、助劑和其他物質清單。包括產品中物質濃度的限值。RSL 基於政府法規、法律或全球公認的毒理學家的專業知識。RSL 通過加工紡織品的分析測試進行驗證。



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in the product. RSLs are based on government regulations, laws or on the expertise of globally recognised toxicologists. An RSL is verified by analytical testing of processed textiles.

<b>MRSL</b>	<p><b>Manufacturing Restricted Substance List</b> – a list of chemicals, auxiliaries and other substances subject to a usage ban in textile and leather production facilities. The listed chemicals shall not be intentionally used in production processes. A MRSL can be verified through chemical inventory review and analytical testing of chemical mixture. The MRSL does not cover chemical synthesis processes or other stages of chemical production.</p>	<p>紡織品和皮革生產工廠中被禁止使用的化學品、助劑和其他物質清單。所列化學品不得有意用於生產過程。MRSL 可以通過化學品庫存審查和化學品混合物的分析測試來驗證。MRSL 不包括化學品合成過程或化學品的其他生產階段。</p>
<b>SDS</b>	<p>A safety data sheet (SDS), or product safety data sheet (PSDS) is an important component of product stewardship and occupational safety and health. It is intended to provide workers and emergency personnel with procedures for handling or working with that substance in a safe manner, and includes information such as physical data (melting point, boiling point, flash point, etc.), toxicity, health effects, first aid, reactivity, storage, disposal, protective equipment, and spill-handling procedures. SDS formats can vary from source to source within a country depending on national requirements.</p>	<p>安全數據表(SDS)或產品安全數據表(PSDS)是產品管理和職業安全與健康的重要組成部分。它旨在為工人和緊急救援人員提供安全處理或使用該物質的程序，並包括物理數據（熔點、沸點、閃點等）、毒性、健康影響、急救、反應性、儲存、處置、防護裝備和洩漏處理程序等信息。SDS 格式可能因國家/地區的來源而異，具體取決於國家/地區要求。</p>
<b>VOC</b>	<p>A Volatile Organic Compound (VOC) is any organic compound (e.g. Acetic Acid, Formaldehyde etc.) as well as the fraction of creosote, having at 293,15 K a vapour pressure of 0,01 kPa or more, or having a corresponding volatility under the particular conditions of use"; This is the definition in the IED Directive 2010/75. VOCs are a category of air pollutant mainly from industrial processes (also textile) and automobiles, which have a wide range of reactivity in the atmosphere.</p>	<p>根據第 2010/75 號指令 ( IED ) 中的定義，揮發性有機物 ( VOC ) 是指任何有機化合物 ( 例如乙酸、甲醛等 )，以及在 293.15K 條件下蒸氣壓大於或等於 0.01kPa，或者在特定使用條件下具有相應揮發性的雜酚油餾份。VOC 是一類主要來自工業生產 ( 也包括紡織 ) 和汽車的空氣污染物，在大氣中的反應範圍很廣。</p>

**12.2 Terms and Definitions used in OEKO-TEX® STeP**

**OEKO-TEX® STeP 使用的術語和定義**

<b>Assessment tool</b>	<p>The assessment tool is used as the application and basis for all auditing</p>	<p>評估工具用作 OEKO-TEX® STeP 過程中所有審核和認證的應用和基礎。</p>
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and certification within the OEKO-TEX® STeP process.

<b>Auxiliaries</b>	Chemical products that enable efficient production or produce a particular effect within the production process. Such auxiliaries may yield in the majority to the product being produced or can yield to the environment.	能夠在生產工藝中實現高效生產或產生特定影響的化工產品。此類助劑可能大部分都會存在於所生產的產品，也可能釋放到環境中。
<b>Cleaning agent</b>	Water-based solvents, surfactants that are used to remove e.g. dirt, dust, stains and/or, bad smells. Such surfactants may be used as detergents, wetting agents, emulsifiers, foaming agents and dispersants.	用於去除污垢、灰塵、污漬和/或難聞氣味的水基溶劑、表面活性劑。這類表面活性劑可被用作洗滌劑、潤濕劑、乳化劑、起泡劑和分散劑。
<b>Collective bargaining agreement</b>	A contract for labour negotiated between an organization (e.g. employer) or a group of employers and one or more worker organizations (e.g. union), which specifies the terms and conditions of work.	由一個或多個組織（比如僱主）與一個或多個工人組織（比如工會）簽訂的有關勞工談判的合約，詳細規定了僱用的條件和條款。
<b>Contractor</b>	A business entity which performs certain work within the premises of the OEKO-TEX® STeP certified facility part time or full time (e.g. security, cleaning services, food delivery, canteen or kitchen services etc.).	為被 OEKO-TEX® STeP 認證的工廠提供全職或兼職工作的任何單位或個人，這些工作包括保安、清潔服務、送餐、食堂或廚房的服務等。
<b>Corrective measures</b>	To take measures eliminating the cause of a detected non-conformity with OEKO-TEX® STeP requirements. Corrective measure is taken to prevent reoccurrences and always a needed action and measures for a specified obligation.	採取措施來消除導致不符合 OEKO-TEX® STeP 規定的原因。採取糾正措施，防止再次發生。對某些不合規項，始終需要採取糾正行動和措施。
<b>Degreasing agent</b>	(Degreaser) – organic solvent-based or solvent-containing cleaning agent.	(除油劑) -有機溶劑系或含溶劑的清洗劑。
<b>Employment agency</b>	A business entity who matches work interested people with the job opportunity of the facility.	將工廠的工作機會配對予感興趣的人的商業實體。
<b>Environmental effects</b>	Any adverse environmental impacts from the operations of the facility within regular (normal) operations, force majeure, and/or irregular and accident/ emergency situations.	在工廠營運中，因常規（正常）操作、不可抗力，和/或非常規和意外/緊急情況對環境產生的任何不利影響。
<b>Exclusion criteria</b>	Exclusion criteria are part of the basic questions. They are the most important criteria used to determine suitability for participation in the OEKO-TEX® STeP certification program. All exclusion criteria must be met in order for a production facility to be eligible for the OEKO-TEX® STeP certification.	排除標準屬於基本問題的範圍。排除標準是 OEKO-TEX® STeP 認證計劃參與資格的最重要衡量標準。為了符合 OEKO-TEX® STeP 認證的參與資格，生產工廠必須滿足所有的排除標準。



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<b>Facility</b>	A factory or location that produces a given good or service. In the context of the STeP Standard, the facility could be a textile or leather factory, cut and sew operation or any derivative of the textile or leather supply chain.	生產指定商品或服務的工廠或場所。在 STeP 標準中，工廠可以是紡織廠或皮革廠、裁剪和縫製廠或紡織/皮革供應鏈的任何衍生工廠。
<b>Hazard</b>	A hazard is any biological, chemical, mechanical, environmental or physical agent that is reasonably likely to cause harm or damage to humans, other organisms or the environment in the absence of its control. The identification of hazards is the first step in performing a risk assessment	危害是在缺乏控制時相當可能給人類、其他生物或環境造成傷害或損壞的任何生物、化學、機械、環境或物理因素。識別危害是執行風險評估的第一個步驟
<b>Homeworker</b>	Homeworkers are defined by the International Labour Organization (ILO) as people working from their homes or from other premises other than their facility workplaces, Homeworkers are hired by a facility for specific activities or services to be done from their homes. Homeworkers do not own or operate the business they work for.	國際勞工組織(ILO)把家庭工定義為在他們家中或其他場所，但不在其經營場所工作的人員。家庭工通常由於特定的活動或服務而被工廠僱用。家庭工不擁有或經營他們工作的業務。
<b>Independen- cy</b>	of OEKO-TEX® STeP: no industrial influence , no political influence , no influence from certificate holders, act as a non-profit organisation	OEKO-TEX® STeP : 不受工業影響，不受政治影響，不受證書持有人的影響，是非營利組織
<b>Logistic Cen- tere</b>	A logistics centre for textile and leather product distribution includes storage, re-packaging, assembling and delivery. A logistics centre is a facility dedicated to logistical operations except the transportation itself. A logistics center - under this definition - might be a warehouse, a re-packing facility, a distribution center or similar which might also include possibilities to perform quality control checks and/or repairs.	紡織品和皮革製品的物流中心包括存儲、重新包裝、裝配和配送。物流中心是專注於物流營運，不含運輸的設施。根據該定義，物流中心可能是倉庫，重新包裝設施，配送中心或類似中心，可能還包括執行質量控制檢查和/或維修。
<b>Machine oil</b>	Lubricant, a substance - based on mineral oil - reducing friction between moving surfaces. It can also have the function of transporting foreign particles.	潤滑劑，基於礦物油的減少移動表面之間摩擦的一種物質。它也有輸送異物的功能。
<b>Microplastics</b>	Microplastics are defined as plastic fragments, particles, or fibres smaller than 5mm. These particles can be either manufactured to be small (primary microplastics) or result from the breakdown of larger plastic items (secondary microplastics). Secondary microplastics are formed when larg-	微塑膠是指小於 5 毫米的塑膠碎片、顆粒或纖維。這些微粒既可以是生產出來的小顆粒（原生微塑膠），也可以是由較大的塑膠製品分解而成（二次微塑膠）。當合成紡織品/纖維（合成聚合物）等較大的塑膠製品因風化、紫外線輻射以及磨損、研磨、切割、清洗或加工等機械作用而分解成較小的碎片（纖維碎裂）時，就會形成二次微塑膠。由於塑膠材料具有很強的抗生物降解能力，這些微粒可以在環境中長期存在。原生微塑膠是



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er plastic items, such as synthetic textiles/fibers (synthetic polymers), break down into smaller pieces (fiber fragmentation) due to weathering, UV radiation, and mechanical action like abrasion, grinding, cutting, washing or processing. These particles can persist in the environment for long periods, as plastic materials are highly resistant to biodegradation. Primary microplastics are intentionally produced at a small scale for various applications, such as microbeads/platelets in form of effect prints, flock prints in dyeing/finishing processes.

為各種用途而有意生產的小型產品，例如用於效果印花的微珠/亮片、染色/整理過程中的植絨印花。

<b>Non-conformity</b>	A non-conformity means that something identified or detected during a OEKO-TEX® STeP audit is an irregularity of the OEKO-TEX® STeP standard. This has not necessarily to be an exclusion criteria, but the occurred problem is related to a critical process and/or procedure identified or detected during the audit.	不符合項是指在 OEKO-TEX® STeP 審核過程中發現或檢測到的不符合 OEKO-TEX® STeP 標準要求的不規範的事物。這不一定是個排除標準，但出現的問題一定是關係到關鍵的工藝或流程的。
<b>Obligation</b>	An obligation is a mandatory action for a facility due to a non-conformity (see above) with OEKO-TEX® STeP requirements. Obligations are always linked to exclusion criteria within the OEKO-TEX® STeP assessment questionnaire and standard. An obligation is mandatory because of non-conformity to exclusion criteria and therefore shall always be scheduled with a specific date (Feedback until...) and need to be reviewed by an OEKO-TEX® STeP auditor.	義務是由於不符合 OEKO-TEX® STeP 標準而必須強制採取的措施。義務一定是與 OEKO-TEX® STeP 中的排除標準聯繫在一起的。義務是因為不符合排除標準而強制必須採取的措施，並且必須在一定的日期前採取，並由 OEKO-TEX® STeP 審核員再次核查。
<b>Organisation</b>	A social entity that has a collective goal and is linked to an external environment. A factory or facility can be owned by an organisation.	具有共同目標且與外部環境有聯繫的社會實體。組織可擁有工廠或設施。
<b>Preventive measure</b>	Is an action to eliminate the cause of a potential non-conformity to OEKO-TEX® STeP. Preventive measures are taken to prevent occurrence and incidents.	消除潛在不符合 OEKO-TEX® STeP 的原因的措施。採取預防措施，防止意外事故。
<b>Raw chemical</b>	A raw chemical can be described as either an ingredient or basic chemical. A raw chemical would have a unique CASRN or EC number.	化工原料可以是組份或基本化學品。化工原料具有唯一的 CASRN 編號或 EC 編號。
<b>Recommendation</b>	A suggestion or proposal to increase the process performance and/or the	建議或提議來增強績效和/或提高 OEKO-TEX® STeP 認證工廠的得分。



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scoring of a OEKO-TEX® STeP certified facility.

<b>Risk</b>	risk = hazard x exposure	風險=危害 x 暴露
<b>Solvent agent</b>	(organic solvents) – organic substance that dissolves a solute (a chemically different liquid, solid or gas), resulting in a solution. (e.g. tetrachloro-ethylene, toluene, turpentine, acetone, methyl or ethyl acetate, hexane, petrol ether, citrus terpenes, ethanol or other alcohols).	(有機溶劑)-溶解溶質(化學性質不同的液體、固體或氣體)並產生溶液的有機物質。(例如,四氯乙稀,甲苯,松節油,丙酮,甲基或乙酸乙酯,己烷,石油醚,柑橘類萜烯,乙醇或其它醇)。
<b>Spinning</b>	A mechanical process that requires no water or solvents to produce fibres and yarns (e.g. cotton). "Spinning" includes "melt spinning", "extrusion spinning", "direct spinning" and "electro spinning".	不使用水或溶劑來生產纖維或紗線(例如:棉花)的機械過程。「乾式紡絲」包括「熔融紡絲」、「擠塑紡絲」、「直接紡絲」和「電紡絲」。
<b>Sub-contractor</b>	A business entity who provides the supplier with textile or leather production related goods and/or services. A sub-contractor is hired by a OEKO-TEX® STeP certified facility to perform a specific task or amount of products (defined by contract) as part of the overall production process.	在供應鏈上為組織提供紡織/皮革生產相關產品或服務的企業單位。分包商是由 OEKO-TEX® STeP 認證工廠僱用的,為其執行特定的任務或生產一定數量的產品(由合約定義的),作為整個生產過程的一部分。
<b>Sub-supplier</b>	A sub-supplier is an enterprise that supplies textile or leather goods, chemicals, facility equipment, machinery and similar goods to a supplier of a OEKO-TEX® STeP certified facility.	供應鏈上的次級供應商是指向 OEKO-TEX® STeP 認證工廠的供應商提供紡織品或皮革製品、化學品、工廠設備、機械及類似商品的企業。
<b>Supplier</b>	A supplier in a supply chain is an enterprise that supplies textile or leather goods, chemicals, facility equipment, machinery and similar goods to the OEKO-TEX® STeP certified facility.	供應鏈上的供應商是指指向 OEKO-TEX® STeP 認證工廠提供紡織品或皮革製品、化學品、工廠設備、機械及類似商品的企業。
<b>Sustainability</b>	State of the global system, including environmental, social and economic aspects, in which the needs of the present are met without compromising the ability of future generations to meet their own needs.	包括環境,社會以及經濟方面的全球體系,既滿足當代人的需要,又不對後代人滿足其需要的能力構成危害。
<b>Unintended consequences</b>	Reactions to activities that were not intended or unforeseen in the present. The precautionary principle states that when in doubt about the consequences of an activity or process, activities using such processes should be limited.	對目前未預料或不可預見的活動的反應。根據預防原則,如果不確定某活動或過程的後果,應限制具有這類過程的活動。
<b>Worker representative</b>	One or more worker representatives freely elected by workers to facilitate	以促進同管理代表和高級管理層就 OEKO-TEX® STeP 中社會及職業健康和 safety 相關事宜進行溝通為目標,由



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communication with the management representatives and senior management on matters related to OEKO-TEX® STeP social and health& safety module. In facilities organized by unions the worker representative shall be freely elect the worker representative and not be nominated by a union.

工人自由選舉產生的一個或多個工人代表。在工廠的工會組織內的職工代表應能自由選擇工人代表，而不是由工會提名。

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**Wet/Chemical Processes** Textile and leather production processes using water and chemicals as process medium.

使用水和化學物質作為處理介質的紡織品和皮革生產過程。

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**Wet spinning** A fibre and yarn production process in the presence of water or solvents (e.g. viscose, modal, acetate, triacetate, acrylic, modacrylic). Some spinning processes differ – but also belong to “wet spinning” in this definition – in that solidification is achieved through evaporation of the solvent. This is usually achieved by a stream of air or inert gas. Because there is no precipitating liquid involved, the fibre does not need to be dried and the solvent is more easily recovered. Acetate, triacetate, acrylic, modacrylic and aramid are produced using this process.

濕式紡絲是在水或溶劑的環境下製造纖維或紗線的過程（例如，粘膠，莫代爾，醋酸纖維，三醋酸，丙稀晴，改性丙稀晴）。有些不同的紡絲製程-但也屬於該定義下的“濕法紡絲”，如透過蒸發溶劑來實現固化。這通常是由空氣或惰性氣體流完成。因為不涉及沉澱液體，所以不需要乾燥纖維，溶劑也更容易回收。採用此工藝可生產醋酸纖維，三醋酸，丙稀晴，改性丙稀晴聚苯並咪唑纖維，氨綸和維綸。

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Further definitions, for example regarding the different types of operation used in STeP, can be found in the OEKO-TEX® MADE IN GREEN Standard.

更多定義，例如 STeP 中不同生產類型的定義，請參閱 OEKO-TEX® MADE IN GREEN 標準。



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## I Annex

## 附錄

### Code of Conduct

### 行為準則

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The OEKO-TEX® Code of Conduct can be found under [www.oeko-tex.com/CoC](http://www.oeko-tex.com/CoC). The OEKO-TEX® STeP Code of Conduct for supplier can be found under [www.oeko-tex.com/STeP\\_CoC](http://www.oeko-tex.com/STeP_CoC).

請參閱 [www.oeko-tex.com/CoC](http://www.oeko-tex.com/CoC) 發佈的 OEKO-TEX® 行為準則 ( CoC )。請參閱 [www.oeko-tex.com/STeP\\_CoC](http://www.oeko-tex.com/STeP_CoC) 發佈的 OEKO-TEX® STeP 供應商行為準則。



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## II Annex

## 附錄

### Terms of Use

### 使用條款 (ToU)

The OEKO-TEX® Terms of Use (ToU) apply for all OEKO-TEX® products. The ToU can be found under [www.oeko-tex.com/ToU](http://www.oeko-tex.com/ToU).

OEKO-TEX® 使用條款 (ToU) 適用於所有 OEKO-TEX® 產品。可以在 [www.oeko-tex.com/ToU](http://www.oeko-tex.com/ToU) 查看 ToU。

Please use the form below to confirm the OEKO-TEX® Terms of Use and send it to the responsible OEKO-TEX® Institute.

請使用下面的表格確認 OEKO-TEX® 使用條款並將其發送給相關負責的 OEKO-TEX® 機構。

### Agreed and accepted by user

### 用戶同意和接受

By putting its signature at the signature block below, the User confirms that it has read, understood and agrees fully with the Terms of Use and conditions contained herein, including its annexes.

用戶在下面簽名區簽名，表明其確認已經閱讀、理解並完全同意所載的所有條款和條件，包括其附錄。

Company	公司	
Salutation/Name/Surname	稱謂/姓名/姓	
Street No.	街道地址	
ZIP-Code	郵編	
City	市	
State	州/省	
Country	國家/地區	
Phone / FAX	電話/傳真	
Homepage	主頁	
E-Mail	電子郵箱	

Responsible person

負責人

Name	姓名	
Phone / FAX	電話/傳真	
E-Mail	電子郵箱	

These Terms must be signed by two authorised representatives of the User, one of which is a member of its board and the other, preferably by the individual responsible within the User's organisation for the OEKO-TEX® STeP certification.

這些條款須由用戶的兩名授權代表簽署，其中一名為董事會成員，另一名最好是使用者組織內的 OEKO-TEX® STeP 認證負責人。



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These Terms of Use are hereby signed for and behalf of the User, namely 現代表用戶簽署這些使用條款，即

registered as 註冊為

under the laws of 根據法律

having its registered office address at 其註冊辦事處地址

Date, place / 日期，地點

.....

.....

Director and STeP authorised signatory  
董事和 STeP 授權簽署人

Name/Title of STeP authorised signatory  
STeP 授權簽署人姓名/職稱





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Management representatives to ensure deputy representation during the STeP audit. 多位管理層代表從而確保 STeP 審計期間的代表充分性

Manager 1

經理 1

<b>Position/Function</b>	職位或職責	
<b>Full Name</b>	全名	

Manager 2

經理 2

<b>Position/Function</b>	職位或職責	
<b>Full Name</b>	全名	

Manager 3

經理 3

<b>Position/Function</b>	職位或職責	
<b>Full Name</b>	全名	

Manager 4

經理 4

<b>Position/Function</b>	職位或職責	
<b>Full Name</b>	全名	

Manager 5

經理 5

<b>Position/Function</b>	職位或職責	
<b>Full Name</b>	全名	

Manager 6

經理 6

<b>Position/Function</b>	職位或職責	
<b>Full Name</b>	全名	