



**STeP**

# Standard OEKO-TEX® STeP

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OEKO-TEX®  
International Association for Research and Testing in  
the Field of Textile and Leather Ecology.  
国际环保纺织和皮革协会

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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 标准作为检测、认证和授权许可的一部分，由 OEKO-TEX® Service Ltd. (OEKO-TEX®) 提供。有关产品组合的详细信息，请访问 OEKO-TEX® 网站([www.oeko-tex.com](http://www.oeko-tex.com))。在网站及附录 1 中，可查看 OEKO-TEX® 成员机构列表。

OEKO-TEX® STeP standard (标准) 是规范性文件，规定了整个纺织和皮革生产链中的工厂认证以及 OEKO-TEX® STeP 商标许可的技术条件。附录 II 中所规定的适用于所有 OEKO-TEX® 产品 (标准) 的使用条款(ToU)也同样适用。

STeP 认证的目的是实现永久的环保生产工艺、优化健康与安全保护，促进负有社会负责的工作条件。STeP 认证对可持续的生产条件进行全面分析和评估。这包括支持生产工厂测量并可持续地改善其环境绩效、健康与安全绩效和社会责任以及将这些要点透明地披露给行业和消费者。

## 适用范围

OEKO-TEX® STeP 标准适用于整个纺织品和皮革生产链中生产工厂的认证。对于纺织品，包括从非农业纤维生产、纺纱、梭织针织生产到后整理和服装成品制造商、纺织品物流中心以及辅料、泡绵和床垫制造商每个生产阶段的生产工厂。对于皮革，包括从浸灰间到鞣制、复鞣、染色、加脂和后整理工厂等生产工厂，以及皮革制成、皮革物流中心和辅料制造商。

OEKO-TEX® STeP 评估整个纺织品生产链中生产工厂的绩效，包括：

- 纺纱、加捻、特种纱生产、络筒、捻线等
- 湿纺
- 梭织、针织、无纺布生产、制毡、簇绒、刺绣等





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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.

- 前处理、染色、印花、后整理、涂层、工业清洗/洗衣等。
- 产品制成
- 辅料的生产
- 泡沫和床垫的生产
- 纺织品物流
- 其他

OEKO-TEX® STeP 评估整个皮革生产链中生产工厂的绩效，包括：

- 浸灰
- 鞣制
- 复鞣、染色、加脂
- 皮革整理
- 皮革产品缝制
- 辅料配件的生产
- 皮革物流
- 其他

本标准适用于特定纺织品和皮革产品（参见 DIN 60000“纺织品、基本术语和定义”和 DIN EN 15987“皮革贸易的关键定义”）、及其中间产品、辅料的工厂（生产工厂）和物流中心。在任何情况下，STeP 范围内的整个工厂都应获得认证。仅考虑生产工厂内的单个部分或单条生产线是不允许的。

OEKO-TEX® LEATHER STANDARD 不可认证的兽皮或皮革材料生产商，也不符合申请 STeP 认证的条件。

有关不同生产类型的更多详细信息，请参阅 OEKO-TEX® MADE IN GREEN 标准。

## OEKO-TEX® STeP 商标

### 内容和声明

**可持续纺织品和皮革生产** OEKO-TEX® STeP 认证是一套独立的认证系统，面向希望以透明、可信和清晰的方式向公众宣传其供应链可持续生产成就的制造商、零售公司以及纺织和皮革链制造商。



## STeP

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 对纺织品和皮革生产链中的以下模块进行评估、测试和认证：

- 化学品管理
- 环境绩效
- 环境管理
- 社会责任
- 质量管理
- 健康和安

要获得 OEKO-TEX® STeP 的认证资格，生产工厂必须符合上述模块中的必要准则。基于标准中定义的绩效等级，可以获得定期更新的各种评级。

得益于其模块化分析系统，STeP 认证可全面、可靠地分析生产和物流工厂以可持续、环保和对社会负责的方式运营的程度。

为确保必要的透明度和可比性，STeP 标准全球统一。通过动态持续开发，对标准进行定期分析、重新评估并在需要时进行更新，例如开拓新市场的需求、法律规定和科学发现的考虑。

要获得本标准的认证并获得使用 OEKO-TEX® STeP 商标的许可，生产工厂必须符合所有指定活动领域（模块）中的必要准则。

标准以 "应" 或 "应当" 表示。在标准文件中使用 "应" 表示一种义务，并确定为获得认证必须满足的所有标准。本标准中使用 "应当" 表示要求，反映了对持续改进的建议。

OEKO-TEX® STeP 商标是纺织品和皮革生产工厂的标志（标签、徽标、文字标记），这些生产工厂已根据本标准的技术条件进行认证。

使用条款(ToU)中规定了授权许可和使用商标的条款和条件。

### 授权许可

OEKO-TEX® STeP 标签同商标一样，受商标法的全面保护。在全世界范围内，该标签已申请或注册为商标。为加强法律保护，不仅该标签本身，而且文字标签 OEKO TEX、OEKOTEX 和 ÖKO-TEX，及其标志的不同组成部分，比如徽标、地球元素，都受独立保护。



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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 商标仅供已授权的主体用于已授权的用途。在授权许可前，需先根据本标准文件中指定的条件颁发证书。OEKO-TEX®检测机构向申请人颁发证书的同时授权许可。

### 商标使用

应按照附录 2 中的原则和图示使用 OEKO-TEX® STeP 商标。不允许以其他类型或形式使用该商标。

严厉禁止缺省商标的任一部分。具体而言，证书编号和认证机构为强制性内容，且必须与对应证书一致。

这些义务非常重要。任何违反这些义务的行为都会导致证书和商标使用许可被立刻吊销。

## 定义模块

### 化学品管理

化学品管理模块涉及化学品及其特定属性。其最重要的方面是检测并预防所生产产品中化学品的任何潜在负面影响以及它们在使用过程中对环境造成的影响和产生的危害。其特别注重如何最大程度减小并很好地避免化学危害和风险。该模块在很多方面与其他 OEKO-TEX® STeP 模块（特别是“环境绩效”和“健康与安全”模块）重叠，共享当中的许多问题和影响。

### 目的

大多数生产纺织品和皮革的工艺都需要使用化学品。它们可用于以下目的（不限于以下所列）：

- 染色与印花
- 后整理：例如，通过在纺织品和皮革上施用特定专门开发的整理剂来实现某些特征，例如防皱、易护理性、防水、柔软、阻燃、卫生、防污或防蚊特性等
- 预处理和煮炼：例如，通过漂白、水洗、清洁过程去除不需要的副产品和污渍



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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.

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

- 润滑和上浆：例如，引入特殊的物理特性，以确保纺织品适用于后期工艺而不会损坏或毁坏
- 色牢度以及改善物理和理化特性：例如，以减少起球
- 校正故障生产：例如剥离染料
- 保护纺织品和皮革免受微生物、紫外线、氯等的影响

此外，应对生产工厂中用于其他目的的化学品进行控制：

- 设施、机器、设备、产品和其他物品的维护、清洁和操作
- 废水和废气排放的处理
- 用于内部实验室检测的试剂
- 工业洗衣房使用的化学品也值得关注，如洗涤剂、酸、漂白剂（如 Javel、双氧水）和抗菌助剂等。

化学品可用于多种能够增加工厂价值的目的。对于被定义为“适用于特定目的”的化学品，它的优点必须超过其潜在的危险性以及与之相关联的危害。

化学品管理系统（CMS）是针对化学品的特殊属性为工厂提供风险管理的首选方法，也是根据化学品的来源、接收、储存、使用、应用和处置来确定结论和后果的首选方法。化学品管理系统应确保生产和处理的产品对最终消费者是安全的。为此，必须根据“了解、评估和优化”的原则使用危害评估系统。化学品安全管理系统（CMS）表明了工厂对使用化学品及其预期用途的认识。工厂有一套评估系统来确定所使用化学品的危害和风险，并以此为基础来确定用于类似应用领域的化学品的各种风险。化学品安全管理系统应使公司能够对生产设施和市场上化学品的法律和道德框架条件的变化做出快速和适当的反应。

化学品管理体系如果涵盖以下要点，即可履行其目的：

- 企业化学品相关政策





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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
- 指定负责化学品管理的人员
  - 化学品清单（用于生产过程、工业洗衣房洗涤过程和工厂内维护/清洁的所有产品）。
  - 收集有关化学品的基本信息/知识（符合 GHS 指南的安全数据表）
  - 有关化学品的完善的信息/知识（活动数据研究）
  - 有关法规要求和买方要求目录(RSL)中对生产的制品的要求的知识
  - 化学品评估
  - 已确定的关键化学品风险评价
  - 绿色化学的推广

#### 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

#### 企业化学品相关政策

引进化学品管理体系的第一步，是对工厂中的化学品这一主题制定管理声明。该声明可以是另一个管理体系（如质量管理体系(QMS)或环境管理体系(EMS)）的一部分。然而，也可以将其编制成独立的文档。

理想情况下，该管理政策中应直接指明或可推导出消除或减小化学品负面影响的目标。该声明还应包括以下工厂政策：继续教育和培训员工使用化学品，以便向他们传达所需知识来识别与所用化学品相关的物理、健康或环境影响并作出恰当的反应。

为确保化学品在各个方面都得到高效处理，应指定至少一名负责人。此人负责化学品管理，向董事会报告，并作为外部调查的联系人。

#### 化学品库存列表

化学品管理体系的绝对最低要求是生产中使用的所有化学品的库存列表（包括化学品生产以及用于清洁、维护等的化学品）。库存列表至少应包含以下信息：

- 产品名称（产品的商品名或化学品名称、物质名称）

对于工厂中的每种化学品（无论是否与生产有关），都应提供安全数据单(SDS)。工厂应掌握所用化学品以下几方面的信息，并且最好保存在库存列表或 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
- 根据 GHS (全球化学品统一分类和标签制度), 基于化学品的物理、健康和生态风险对其进行分类。此信息可参见符合 GHS 要求的 SDS。
  - 化学品各化学成分的组成 (包括其百分比值) 及对应的 CAS 号
  - 指定的单独化学物质的危险代码 (GHS 代码、H 和 P 代码)
  - 化学物质的注册信息 (EINECS 编号、EC 编号、REACH 注册编号等)
  - 化学品的最低、最高和实际库存

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

OEKO-TEX® STeP 与 BHive® 合作。该工具可用于管理湿法加工工厂生成和收集的所有化学品库存列表。其 APP 程序使得企业可使用智能手机收集现场使用的化学产品信息, 并在几秒钟内确定哪些产品符合 STeP MRSL 的可持续发展要求 (包括其他可持续发展要求, 如 ZDHC 和许多品牌/零售商)。所有使用化学产品 (湿处理) 的 STeP 客户均可在 STeP 范围内免费使用 BHive® 平台。通过此次整合, 我们的 STeP 客户可以利用 BHive® 的庞大化学品数据库, 以简单易懂的方式提高其化学品库存的完整性。

#### 禁用化学品, MRSL

对于获得 OEKO-TEX® STeP 认证的工厂, 所有不允许使用的物质都包含在附录 3 的详细清单中。需要根据附录 3 对制造商提供的化学品清单、SDS 和有关化学品的任何其他信息进行审核。生产的产品需要符合成品最终销售国家/地区的法规要求。许多机构都提供了有关各种化学品在不同国家/地区的管制信息。该信息以清单的形式提供。这些清单也是确定潜在有害物质的重要依据, 列于附录 7 中。

应当指出的是, 生产的产品中含有法规或受限物质清单中列出的禁用化学品, 可能并非是有意在生产中使用了相关物质。这些化学品也不应以意外污染物、稳定剂或故意使用的化学品的降解产物出现。在这方面最著名的例子是许多国家通过法律禁用某些偶氮染料, 因为这些染料在分析过程中会裂解为致癌芳香胺。





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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.

由于所使用的化学品可能含有杂质或 STeP MRSL 附录 3 中所列的污染物（例如 APEO、邻苯二甲酸酯等），工厂应注意这一点。如果在废水测试中发现杂质或污染物，应联系大宗化学品供应商。

通过 OEKO-TEX® STeP 认证的工厂应制定策略和适当的措施和工具，以确保制造和处理（如水洗）的产品不会对最终消费者的健康构成风险，也不会与附件 3 中的 MRSL 相冲突。根据 OEKO-TEX® 的 STANDARD 100 和 LEATHER STANDARD 标准对制成品进行认证，是满足这一要求的有效且经济的方法。



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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:

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

### 沟通

如果生产的产品故意包含需要在后续生产工艺中去除的物质并由此存在于后续工艺的废水中，则需要向买方报告这些物质。这使得下游生产工厂有机会通过合适的工艺去除此类物质。此外，应提供废物处理最有利方法的相关信息。故意添加并随后去除的物质的例子包括纺纱整理剂或织造前使用的蜡和上浆剂。

在将特定化学品的某些信息告知采购者方面，也存在强制性的法规要求。受此影响的化学品包括，例如，SVHC 候选清单（REACH，参见附录 9）中列出的化学品以及产品中含量超过 0.1 重量百分比的化学品。这是针对欧洲企业以及欧盟进口商品的法规要求。自 2021 年 1 月 5 日起，所有含有超过 0.1% (g/g) SVHC 物质的物品都应在 SCIP（产品关注物质）ECHA 数据库中予以通报。

全球范围内的其他法规和报告要求因国家和地区而存在较大差异。卖方有责任满足所有此类要求。

### 化学品危害和风险

首先需要确定关键要素，以便系统地改善工厂在所用化学品方面的绩效，并最大程度减小与这些化学品相关联的危害。

这可以通过基于物理、健康和环境影响的明确的既定科学标准对化学品进行危害评估来实现。由第三方提供的各种参考值、电子评估工具或认证可用于化学品，并且可提供有关执行此任务的有价值的信息。本标准的附录 6 和附录 9 中列出了一些工具和广泛认可的参考值。

在工厂对化学品进行评估并识别出所有关键化学品之后，必须进行风险评价。

### 危害评估

危害可以通过化学品可能导致的潜在影响（急性、慢性等）来定义，而风险是由危害和暴露相结合而产生这种影响的数值概率。因此：

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



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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

危害评估的第一步是遵守经营工厂和使用成品的所有法规要求。

危害评估的第二步是通过分析和审核制造过程受限物质清单[黑名单]进行验证，从而正式接受不允许在环境或生产中使用的超过其“安全”标准的化学品。

在危险评估的第三步，识别商业产品的成分或组分的化学组成，并指定适用的 CAS 编号或 EC 编号。

评估的第四步是针对这些化学成分造成的重大危害确定“限值或标准限值”。这可导致工艺得到优化或使用更好、危险性更低的替代物质。

评估的第五步是理解“绿色化学”的重要性的含义，并将这些知识与成分的危害评估相结合，以便实现持续改进并使用更环保、毒性更小的替代品。

#### 风险评价

化学品管理体系中的风险评价显示了识别出的特定化学品的特定危害以及在生产之前、期间或之后可能产生这种危害的方式。该原则适用于所有潜在的危害，包括因化学品物理性质引起的危害和对健康或环境造成的影响。

风险评价的主题可为：

- 符合 REACH 法规、POP 法规或其他环境指令等义务
- 客户要求和期望，特别是受限物质清单(RSL)或制造过程受限物质清单(MRSL)

示例：

- 如果一染料已被确定含有禁用的芳香胺，那么因禁用偶氮染料而无法通过测试的可能性极大（这是许多国家的法律规定），因此生产的物品将不具商业价值。结论：这种染料不能用于生产，应被清除。
- 如果清洗剂已被确定具有高生物累积性和低降解性，但将其用于封闭系统，且在处理之后全部回收和再利用，则可将污染环境的相关风险评为较低。然而，必须记录和检查封闭系统的有效性和全部的回收情况。



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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.

One possible risk assessment method is described in chapter 4.5.10.

- 如果整理剂已被确定对水生生物具有高毒性且无法通过废水处理完全消除，意味着该助剂的残留物将被释放到环境中，则必须替代该试剂。

可能的风险评价方法见 4.5.10 章节



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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

## 绿色化学

绿色化学原则拟出了所有工厂在技术背景下生产、加工和处置化学品并致力于不断地将化学品对经济、健康和环境的潜在负面影响降到最低的指南。

绿色化学基于以下 12 个原则 (Anastas, P. T.; Warner, J. C. 绿色化学：理论与实践，牛津大学出版社：纽约，1998 年，第 30 页)：

- 预防
- 原子经济性
- 减少危险化学品合成
- 设计更安全的化学品
- 更安全的溶剂和助剂
- 能源效率的设计
- 可再生资源的利用
- 减少衍生产品
- 催化作用
- 可降解性设计
- 污染防治的实时分析
- 防止事故发生的固有安全化学

绿色化学的原则源于大自然的原理，被视为化学品管理体系最可持续的综合方法。

## 认可的第三方认证

对化学品评估和化学品管理体系具有重要意义的受认可的第三方认证清单，可参见附录 8。

如果工厂获得第三方认证，则必须向 OEKO-TEX® 认证机构提供包括证书和有效期限在内的认证过程文件和记录。

## 环境绩效

该模块涉及工厂在工厂处理和储存化学品（例如，溶剂等化学品）、使用和消耗资源（例如，能源和水）、排放（废水、废气排放、碳足迹/二氧化碳排放）、废物产生和一般废物、包装和运输所产生的环境影响以及对意外事件的预防。必须确定管理目标，以便基于 BAT（最佳可行技术）衡量机器和工艺的效率，并确定在能源、水及其成本方面能够节省的程度。可通过持续监测、控制和改进这些参数来支持这一过程。使用环境管理体系能够更有效地整合并控制所有这些因素。





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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

环境绩效基于法规要求和 OEKO-TEX® STeP 的要求以及普遍接受的行业预期。

### 目的

应随时考虑工厂的环境绩效，并应特别注意以下问题和目标：

- 安全高效地处理和储存化学品（化工原料、助剂、染料、溶剂、清洗剂和脱脂剂、机油等）
- 能源消耗的监管和控制
- 通过监测并控制资源，最大程度减少用水量
- 利用回收的废水和/或收集的雨水，尽量减少淡水消耗量
- 通过有效的处理和回收，尽量减少含有害物质的废水排放，同时考虑地方和国家水/污水质量要求
- 避免杂质和形成对健康和环境有害的物质（例如六价铬）的预防措施
- 防止在生产过程中和/或生产后产生并避免释放微塑料。
- 控制和减少废气排放，同时考虑地方和国家的排放限量值
- 管理所有类型的废物，包括任何可能废物的再利用和再循环，及在获许可的设施处置废物前分离所有的危险废物。
- 最大限度地减少一次性包装材料的使用
- 数据完整性和数据管理：没有良好的数据采集、数据管理和报告系统，就无法评定环境绩效。这对于衡量变化至关重要
- 用于控制和预防具有环境影响的事故（例如溢出到水和土壤中、无节制排放和火灾）的系统。该系统包括过程控制系统、危害计划和员工培训





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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

- 废气排放、有害化学品、空调系统、废物处置和设备（例如锅炉、蒸汽容器、发电机和变压器等）的有效许可或执照

- 处理作为食品工业原料的原皮所需的许可证。

此外，为了提高环境绩效，还应考虑以下问题和目标：

- 开展能源回收利用以及考虑可再生能源（如太阳能、风能等）
- 计算二氧化碳排放量（碳足迹）和水足迹是测量环境绩效的有效方法，远超简单的过程能量分解
- 倾向于减少使用包装材料，使用可再用和可再生的包装材料，包括使用可再生资源
- 应尽可能使用 BAT。有关 BAT（例如，用于粘胶生产）的更多信息包含在附录 9 中

#### 水资源

必须尽可能提高水的利用效率。应收集并维护各个设备的作业数据，并应测量工厂的用水量。应建立水平衡系统，描述所有取水排水，最好进行量化。取水不应仅限于生产用途；例如也可将化学品中的水视为取水的一部分。排水流不应仅限于废水流；例如污水处理过程中污泥中的水也可以作为排水的一部分。排水总量与取水总量之比便于公司了解不同水流的情况。该比率也叫作水平衡值。90%水平衡值为理想状态。如果结果小于 90%，可能是因为忘记将水流和/或废水流加入水平衡中（例如管道泄漏、干燥过程中的蒸发等）。水平衡值是进一步改善水和废水管理的基础。应提供独立的饮用水和工艺用水系统。任何水源的使用均应遵守当地和国家法律。如果需要许可证，则应持有有效的许可证。

#### 废水及污泥

应遵守当地和国家有关废水处理的法律规定。纺织品和/或皮革生产过程中产生的废水，以及工业洗衣



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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-

房产生的废水，应在设备所属的废水处理厂（直接排放）中进行处理，或作为市政废水处理厂（间接排放）的一部分进行处理。为确保根据 OEKO-TEX® STeP 和 OEKO-TEX® DETOX TO ZERO 的要求进行有效评估，需要提供废水年度检测报告，必要时还需要提供污泥年度检测报告。附录 3 和附录 5 规定了限量值和报告限量值。这适用于使用工业加工用水和工业洗衣房的工厂，而不适用于仅使用生活污水的工厂。如果生活用水与工业加工用水混合，则合并后的废水被归类为工业加工用水。在任何情况下，如果地区或国家法律对工厂/应用的要求比 OEKO-TEX® STeP 标准更严格，则应适用法律要求。由于粘胶生产商在没有染色和其他湿法工艺的情况下，主要使用特定的基础化学品，因此不必对附录 3 和附录 5.1 中列出的所有参数进行检测。根据 ZDHC 废水准则为 MMCF 所做的废水报告可用于此目的（见附录 3.3）。将污泥用作农业肥料应符合当地和国家的法律要求。

根据要求的参数对废水进行的取样和检测应由独立的授权实验室/检测机构进行。根据 ISO 17025 标准认可的机构参考清单可在 ZDHC 网站上找到（另见附件 10.1.12）。应确保污水处理厂的功能、设计和运行。必须明确遵守法律和/或约定条款。如果没有法律规定，则应遵循“良好做法”的原则，如从源头减少环境污染、尽量减少废物、废水控制和监测等，并应遵守 STeP 标准的基准。对于某些参数，持续的内部测试和审计是有益的。如果与公共污水处理厂有特殊协议，允许超出法律要求，则应考虑该文件。

每年应由独立的实验室/测试机构对用作农用肥料的污泥进行至少一次取样和检测。必须明确地表明遵守了法律规定。如果没有法规要求，则应遵循“良好实践”的原则，并且应遵守 STeP 标准的基准。有关内部检测和审核的持续计划对某些参数有利。



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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-

应指定年审和正式流程，以确定和减少废水排放量，并改善废水质量，降低其毒性。一个很好的例子是 ZDHC（有害化学物质零排放）。能明显减少生产引起的废水量的措施均应纳入考虑范围内。每年应编制并记录水提取/使用和废水处理的成本平衡表。这要求配置相应系统来测量耗水量，此举对提高生产效率具有重要意义。应进行年审，以改善污水处理厂的污泥质量。

若存在导致超出限量值的缺陷条件，应立即采取纠正措施纠正，并根据质量管理原则进行记录。

#### 废气排放

应识别并定位引起废气排放的供热车间发电机和生产机器。应满足运营和废气排放的法规要求并将其记录在案。应由独立的授权实验室/检测机构进行外部检测，并在可能的情况下进行内部检测，由此证明符合本标准和/或法律规定。对于热值 $>2$  MW 的供热车间，每年应进行至少一次外部检测；对于热值为  $0.3$  MW 至  $2$  MW 的供热车间，该检测应每 3 年进行一次。对于热功率大于  $50$  MW 的设备，应进行连续的测试。对于热值 $<0.3$  MW 的供热车间，建议进行测量热功率大于  $0.3$  MW 的发电机应至少每 3 年检测一次。应尽可能在烟囱、通风口和抽气系统中使用环境污染消减装置。为减少废气排放而采取的所有措施（包括环境污染消减装置和污染预防/废物最小化/化学品替代），都应作为管理层制定的目标的一部分。

废物焚烧只允许在采取了合适的排放措施，以减少未燃烧的烃、二恶英、卤素化合物和重金属的工厂内进行。

对导致直接或间接废气排放的生产机器和设备应排放物进行过滤或净化，以确保它们符合国家法律要求。如有可能，应找出并减少例如在涉及油、溶剂蒸气、甲醛、含硫化合物和氨的某些染整工艺中产生的内部和外部气味。通过替换气味较强的物质、



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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

安装和改造设备（例如活性炭过滤器）、捕获和回收这些工艺（例如热回收系统）排出的气体并重新设计锅炉的烟囱排放管路，可减少气味。

应立即采取措施纠正导致超出限量值的缺陷条件，并将其记录在案。

根据以下参数对燃烧设备和蒸汽设备排出的废气进行评估：

#### **CO (一氧化碳)**

有关采用热值介于 0.3 MW 和 2 MW 之间和 > 2 MW 的常规固体、液体和气体燃料的车间中 CO 的排放水平，请参见附录 5。

#### **粉尘/微粒物质(PM)**

有关介于 0.3 MW 和 10 MW 之间和 > 10 MW 的所有烧制过程的粉尘排放，请参见附录 5。

#### **SO<sub>2</sub> (二氧化硫)**

有关采用热值介于 0.3 MW 和 2 MW 之间、介于 2 MW 和 50 MW 之间和 > 50 MW 的常规固体、液体和气体燃料的车间中 SO<sub>2</sub> 的排放水平，请参见附录 5。

#### **NO<sub>x</sub> (氮氧化物)**

有关采用热值介于 0.3 MW 和 2 MW 之间和 > 2 MW 的常规固体、液体和气体燃料的车间中 NO<sub>x</sub> (一氧化氮+二氧化氮) 的排放水平（按二氧化氮计算），请参见附录 5。

#### **挥发性有机物**

应避免有意使用 STeP MRSL 中列为挥发性有机物 (VOC) 的任何污染物。应证明未超过关于工作场所 VOC/HAP 的法律规定。如果任何 VOC 的排放危害人类健康或被归类为 HAP，则必须提供/安装足够的个人防护用品(PPE)和/或安装排气系统，以尽可能防止暴露。必须定期进行测量。

### **碳足迹/温室气体排放/二氧化碳-排放**

应重点关注联合国可持续发展目标 13（气候行动），并始终考虑大幅减少温室气体排放和碳足迹。这一条应纳入公司政策以及如下的全球共同目





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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.

标：到 2030 年 GHG 排放（例如 CO<sub>2</sub>、甲烷、一氧化二氮、臭氧）减少 30%（以 2010 年为基准），并在 2050 年左右实现碳中和和/或净零排放。因此，应记录工厂碳足迹（CO<sub>2</sub> 当量）计算体系并明确目标。为此，会为经 STeP 认证的公司提供环境影响计算器。应规划并记录第 4.2.6 章中提到的最大限度减少碳足迹(CO<sub>2</sub>eq)以及所有全球变暖潜在化学品的项目。

#### 流体的全球变暖潜能和臭氧消耗潜能

制冷剂以单一物质或混合物（通常为流体）的形式，用于热泵和制冷循环。许多流体已用于此类目的：碳氟化合物，尤其是氯氟烃(CFC)，在 20 世纪变得很常见，但由于其臭氧消耗作用而逐渐被淘汰。臭氧消耗潜能从高到低依次为：溴氯氟烃、CFC、氢氯氟烃(HCFC)。

许多卤代烷烃、氯氟烃(CFC)和氢氯氟烃(HCFC)，特别是 CFC-11 和 CFC-12，引起了人们对它们在大气中的稳定性及其相应的全球变暖潜能和臭氧消耗潜能的担忧。这导致它们被氢氟烃(HFC)尤其是 HFC-134a 替代，这些氢氟烃不消耗臭氧，并且全球变暖潜能更低。然而，这些制冷剂的全球变暖潜能仍然是 CO<sub>2</sub> 的数千倍。不得使用 CFC、溴化氯代烃和部分 HCFC（见附录 3 第 15 组）。

原则上，不得使用 HFC。根据欧盟(EU)法规 517/2014，OEKO-TEX® STeP 允许以下例外情形：当制冷剂的全球升温潜能值(GWP)低于 2500 时，冷却设备可使用 HFC。含有 HFC 的冷却装置，如 GWP 值等于或大于 2500，则可使用至使用期限，但使用期间不得再补充 HFC 制冷剂。在到达使用期限时，冷却设备需要补充合格的制冷剂，或者替换成带有合格制冷剂的全新冷却设备。如果 HFC 用于混合制冷剂时，需考虑供应商所提供混合物的 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 microfibers; 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:

应定期维护设备（例如，空调、冷却设备），并定期进行主动泄漏检测。目标应当是用具有较低潜能的制冷剂替代具有较高的全球变暖潜能和臭氧消耗潜能的制冷剂。

#### 能源（资源和消耗）

必须充分利用所使用的能源。为了达到这一要求，必须定期监督整个工厂的能源使用率，并将检测每个单独过程的能源使用率作为目标。将能源使用率与水和纺织品和/或皮革生产以及工业洗衣房相关联，可计算出具体的能源需求。这可作为实用的效能指标。

如果降低能耗是一个确定的目标，则可以通过改进工艺控制或能源回收（例如，热回收、多段冷却循环、热交换等）来实现节能。

还应考虑使用具有较小环境影响/碳足迹的可再生能源。

#### 微塑料

微塑料对生物多样性和生态系统的整体健康构成挑战。工厂应识别生产过程中可能潜在产生和释放微塑料的风险/来源，并采取措施避免将微塑料在生产过程中和生产后释放到环境中。

可能的方法包括

- 防止纤维不规则并保持纤维纱的强度（例如，在熔融纺纱过程中降低温度）
- 尽可能使用连续长丝而不是短纤维生产纱线。染色会极大地影响微纤维的释放趋势。因此，染色纱线比染色织物或服装更可取。
- 某些机械和化学整理处理（如疏水整理、抗起球整理）可在织物上形成保护层以保持其特性，在提高织物抗微塑料释放和抗起球性能方面也有很大潜力。

工厂应采取措施避免向环境中释放微塑料。

可参考以下实例：





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

- 防止/阻止粉尘释放。
- 在废水处理（如过滤）过程中去除微塑料。

### 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.

### 废弃物管理

应记录并以文件证明所有生产废弃物的类型、类别和数量。应将处置实践记录在案。应编制处置成本和使用成本平衡表，包括可能的替代处置办法。

务必避免现场填埋、在工厂内焚烧或者将固体和液体废物转移到开阔水域（不适用于经净化的废水）。首选方法是循环利用废物、由供应商回收最小化以及将对运输到其他工厂进行重复利用（使用目的必须是已知的）。

如果可能的话，应收集（例如）上浆浴、预处理、染色和整理浴鞣制、复鞣制和加脂工艺以及印花和废弃物浆料的残留物，并以合法、安全和合乎道德的方式进行重复使用或处置。

含有有害物质的纺织品和/或皮革废料应单独收集、记录，并以合法和合乎道德的方式处置。应在指定区域收集有害和无害的生产废物，并按废物类型（如纸张、纸板、纺织品/皮革废物、塑料、一般废物、金属等）进行分类。

作为食品工业产品生产原料的原皮应在单独指定的区域收集和处置。废物储存区的建设应尽量减少对周围环境和水源的污染。目的是完全避免对环境造成影响。储藏区应不受天气影响并具有防火功能。危险物质的处置应记录在案并指定为特殊废物。应遵守将润滑剂和机油返还给供应商的回收程序。

应实施并记录旨在减少或消除所有废弃物的回收计划。

每年至少对减少废弃物、再利用和回收废弃物的进展情况检查一次，而且应将减少废弃物数量作为目标。关于可持续性、处置/处理方法，应优先采用废弃物管理承包商评估，并定期审核承包商（如可行）。应公布这些措施的结果。



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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.

污水处理厂的污泥应存放在安全位置，确保不会污染生产车间的土地。如污泥中含有染料中的重金属应特别留意。这类污泥应转运至获得许可的专业处理污泥的公司处理。尽管有些国家将废水中的污泥用作田间肥料，应优先考虑专业处置承包商。

#### 化学品、气体、助剂、染料、溶剂、机油等的处理和储存

工厂必须能够证明，所有化学物质都已安全地储存在专用房间或区域中。化学物质，包括清洗剂、脱脂剂和机油等，应按照法律要求进行处理，并且所有容器（化学品和气体区域）和灌装站应标有正确的警示标志（GHS 代码）并设有防护措施。有关各化学品的信息，应以安全数据表的形式提供。还应为员工提供处理和使用这些化学品的适当培训。应准备合适的培训材料。

储存在金属桶中的高度易燃液体，例如甲醇、异丙醇等，在与空气接触时可能形成爆炸混合物。因此，应采取适当的措施以防止爆炸（例如接地金属桶和设备）。易燃固体（例如连二亚硫酸钠）应储存在干燥处并防止与水接触。容器应始终保持密闭状态。

#### 包装和运输

应最大程度减少包装材料并尽可能避免使用。应鼓励内部回收并重复使用包装材料，并避免使用一次性包装。

应记录所用包装材料的数量。应规定包装材料的处置方法。

在采购决策中，应优先考虑可重复使用、循环利用或返回供应商的包装系统。应将回收型包装材料的使用整合到该过程中。

应推行并记录通过运输物流管理（例如，优先考虑采用影响较小的运输形式）来减少对可持续性的总体影响的目标和计划。



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#### 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

#### 预防有环境影响的意外事故

安全系统应包括适当的技术和流程，用以防止所有生产和运输步骤中的事故、环境影响和意外后果。还应考虑化学品在工厂内的安全运输并就此对工人进行培训。

应完整记录所有事故和事件。还应记录事故的影响、起因、理由以及避免此类事件将来再次发生的纠正和预防措施。应针对高风险区域或情况制定应急计划，以确保做出适当的反应。应记录适用于常规和特殊情况，能够防范危险的组织措施和应急计划，例如检查和维护安全装置和机器。

应安排专门的工厂应急小组来负责处理所有化学和环境污染事故，并定期对其进行培训。消除或减少工厂中有害物质的目标应记录在案。

#### 禁止的工艺流程

附录 4 中列出了由于会对环境造成较大影响或出于安全因素而被禁止的工艺。

#### 有害工艺

附录 4 中列出了由于会对环境造成较大影响或出于安全因素而不推荐的危险程序/工艺。

#### 认可的第三方认证

附录 8 中列出了对环境绩效具有重要意义的受认可的第三方证书。

如果工厂通过了第三方认证体系的认证，则应向 OEKO-TEX® 提供包括证书和有效期限在内的认证过程文件和记录。

#### 环境与能源管理

环境与能源管理体系(EMS)是一种管理工具或概念，包括对实现环境目标和持续提升综合环境与能源绩效的过程和活动的文档描述。组织的 EMS 应记录并描述方法范围、关键绩效指标、简介、维护、改进和活动沟通以及公司目标。



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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

有关范围和正式确认管理支持（认可）的声明是 EMS 和工厂战略定位的重要组成部分。它们是管理层协助和维护工厂的环境绩效并满足内外部义务和法规要求的意向声明。

工厂应以确保组织的活动符合既定环境政策及其相应目标的形式建立和维护 EMS。该 EMS 应用于与这些目标相关的内部和外部绩效审核。

据此，将国际标准 ISO 14000 系列视为是集成 EMS 平台的模型模板，ISO 50001 是能源管理的模型。

### 目的

环境与能源管理体系(EMS)是工厂环境政策的重要组成部分，应包括管理层，旨在改善环境与能源绩效以实现更高可持续性的意向声明。

工厂应创建并维护 EMS，以确保公司活动的环境影响与能源审查符合既定的环境与能源政策并与对应目标一致。

有效的 EMS 应至少包括以下内容：

- 组织的环境与能源政策以及实现该政策目标的管理规定和活动，包括水、废水、能源、废气排放、材料、固废等领域的组织活动。
- 适用于工厂的所有法定、法律及其他要求和法规的正式清单和汇总。
- 初始基准环境评估与基于能源基线的能源审查结果
- 利用正式的内部和外部沟通方法和流程进行环境与能源评估和内部审核的正式时间表





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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
- 持续提升环境与能源绩效所面临的差距和规划的改进路径
- 环境管理体系用于日常生产（包含时间表和责任的详细措施）以及作为内外部绩效审核响应的详细描述
- 环境与能源管理体系和指导手册（确定包含目标、计划、环境与能源目标和活动的环境政策）
- 创建和维持组织要求和机会，以实现环境与能源目标
- 指定的环境责任经理（或类似职位），该经理直接向公司高层管理层报告人事、责任、预算、合规性等（例如，环境专员、员工培训）
- 明确定义的监测公司运营的结构

### 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-

### 环境政策

引入或改进环境管理体系的第一步，是制定公司责任声明和环境与能源绩效管理结构。该声明包括承诺在活动、生产、产品和性能方面改善工厂的环境与能源绩效。应根据测量或其他数据制定能源审查。

应以恰当的方式定义并记录环境指南，确保该指南：

- 其与活动、产品和服务及环境影响相关；
- 包括工厂除满足法规要求以外还遵守所有规定的义务及任何其他义务的承诺
- 努力防止/最大程度减少有害的环境影响，并确保以可持续性更高的方式发展

必须针对常规、非常规、意外和应急情况，识别出具有重要环境影响的环境因素。

### 法律和法规

应任命一名指定的负责人（例如，环境保护专员）或外部顾问。该负责人应作为所有环境问题的联系人，并且应熟悉相关法律法规的内容。该负责人对活动进行管理以确保遵守这些法律法规。



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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.

#### 环境目标

工厂应制定程序来说明相关的环境与能源目标以及由此衍生的目标。

应书面陈述工厂的环境目标并在内部和/或外部发行。应对这些目标和成绩加以记录。

目标必须与环境 and 能源政策保持一致。

这些目标应尽可能构成切实可行的可量化承诺，即在一定时间段内持续提升环境与能源绩效。

目标应超出满足法规要求的范围。应基于工厂所在地和工厂的商业要求考虑高于和超出环境与能源绩效法规要求的绩效。

#### 环境与能源管理计划

包含时间表和责任的详细措施应形成环境与能源管理计划的一部分。这些措施描述环境与能源绩效以及制定和实现环境与能源目标的方法。

应阐述满足设定要求的验证流程和文件。

应确定实现环境与能源管理计划应达到的基准和关键指标。应针对未实现或不合规的情况确定时间、地点、测量精度、目标基准设定值和关键指标。应该认识到，应将提升可持续性作为现有工厂的目标。

但是，工厂应针对管理内含实现更高可持续目标的新项目和新发展制定特别计划。





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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.

### 环境与能源管理手册

充分记录所执行的操作和采取的措施，对于成功的 EMS 至关重要。

环境与能源管理手册需包含工厂日常运营所需的便于理解和使用的内容，并经过组织和排列，以确保能够按结构快速进行查阅。

本手册应概述环境政策、目标和计划。该手册应规定重要的角色和职责，对相应文件应具有足够的参考。

工厂应建立管理这些文件的程序，以确保：

- 定期对相关人员进行系统的审查和授权
- 文件控制程序（可包括在 QMS 中 - 与 OEKO-TEX® STeP 保持一致）
- 在所有重要地点都可执行，特别是对于具有环境影响和重大能源绩效影响的活动而言。
- 适用于工厂中对环境造成影响并改善能源绩效的所有单元活动的程序

除正常状况外，手册或文档还应考虑非正常的操作状况、事故和应急情况，以及相应的具体环境信息和说明。

工厂应拥有确保符合 EMS 要求的文档记录系统。记录应清晰明了，并且应指出 EMS 所涉及的所有工厂活动和产品。

工厂应制定供工厂内外部相关各方获取记录的程序，并且应采取措施防止记录遗失或损坏。

应指定并记录文件保存期限。在使用 OEKO-TEX® 标签期间必须保存文件，至少应保存三年。

### 操作控制

工厂应确定对环境与能源绩效有影响且与环境与能源政策相关的功能、活动和流程。



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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

工厂应制定包含 EMS 的运营计划，并且该计划可在下列情况下实施。这需要：

- 以针对员工和分包商的环境政策为参考、适用于相关活动的文件性作业指导
- 适用于采购和外部合同活动的程序，用以确保符合公司要求
- 监测和控制相关工艺特性（废水排放、废弃物处置和能源消耗）
- 批准计划的工艺和设备
- 在书面文件中对绩效标准进行定义

#### 验证、测量和测试

在实现 EMS 目标和履行 EMS 职责板块中的职责时，公司应制定相关设备、工艺和人员绩效的验证和测量程序。应确定编制和维护这些绩效审核结果记录的要求。对于每个相关活动或板块，公司应详细说明并记录：

- 获取验证信息
- 使用验证程序
- 正面和负面结果的衡量标准
- 对之前故障验证信息的有效性的评估

#### 不合规和纠正措施

工厂必须确定引进未遵守或不符合既定要求的调查和纠正措施程序的职责和权限。负责相应措施的管理部门以及管理代表必须：

- 确定未遵守（法规）或不符合（法规要求）的根本原因
- 决定是否应修改程序文件
- 针对所遇风险制定合适的行动计划
- 针对预防措施引进有效的控制手段
- 记录所有因纠正措施引起的程序变更



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

- 在环境管理体系中记录未遵守法规的情况、后续决定及所有变更

### 4.3.8 Organisation and personnel

### 组织和人事

#### 4.3.8.1 Nomination of a responsible person

#### 授权责任方

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.

工厂管理层应任命至少一名经授权的负责人，负责确保达到 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.

应制定工厂内部验证程序，并且应让受过充分培训的员工采取必要手段来执行此类程序。

#### 4.3.8.2 Management review

#### 管理评审

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

应定期审查 EMS。管理系统是一个活动的系统，应保持动态。

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

应采用考虑以下方面的输入和输出的方式来审查系统及其性能：

- 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

- 除法规要求以外，还要履行所有监管及其他义务
- 绩效，不合规
- 目标（包括趋势）
- 采取的措施
- 审核
- 变化和改进需要

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

审查结果，包括决定和措施等都应记录在案。

#### 4.3.8.3 Training requirements

#### 培训要求

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

工厂应引进并维护员工培训程序，包括对承包商和供货商等的培训，确保每个人都知悉：

- 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

- 环境与能源政策的重要性
- 他们的活动对环境的潜在影响
- 改进绩效的环境效益
- 偏离规定程序的后果

Training documents should be maintained and made available as needed.

应保留并在需要时提供培训文件。



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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.

## 沟通

### 内部刊物

应让所有内部的利益相关者知晓引进的 EMS、环境与能源政策、环境与能源目标以及由此产生的组织结构。

EMS 的内部沟通和发布以及工厂与其宣称的目标相关的表现须在整个工厂内进行沟通，并向 OEKO-TEX®机构提供证明文件。

该内部报告应包括以下内容：

- 活动、生产工艺、产品和服务
- EMS 中最重要元素、环境政策及相应的环境目标
- 环境绩效，尤其重点涉及相关的环境目标
- 定期审查和报告的时间表
- 管理审查机制

### 对外交流

组织应确定与外部业务合作伙伴和相关各方沟通其环境与能源政策、绩效和效果相关事宜的程序。建议做法是公开向相关各方提供这一报告。

GRI (全球报告倡议) 是可持续性报告的公认格式。对外交流或环境与能源报告必须能够详尽准确地提供以下信息：

- 活动、生产工艺、产品和服务
- EMS 中最重要元素、环境与能源政策及相应的环境与能源目标
- 环境与能源绩效，尤其重点涉及相关的环境与能源目标
- 定期审查和报告的时间表

环境与能源报告应基于记录、程序、手册和 EMS 的其他文档。

环境与能源报告应基于通过审核和审查得出的 EMS 效率评估。

环境与能源报告应包含工厂的完整名称和完整地址。





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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

环境与能源报告应包含对被报告对象地点、活动、产品和服务的描述。报告应指出编制报告的依据。

废水和污泥检测的测量结果应在互联网上公布，例如，使用 STeP 评估工具中的相关功能。

### 公共关系

公共关系措施可为相关各方（员工、居民、环保协会、机构）提供有关运营环境项目和措施的信息。

应记录所采取措施的类型和目标群体。

### 实施环境管理体系

EMS 的完整实施是一个多阶段过程。作为一项基本原则将该过程分为了实施阶段和改进阶段。

实施阶段最重要的目标是：

- 确定成功实施 EMS 的组织要求（责任）
- 通过初步环境评估搜集当前环境与能源绩效的信息，建立基准并搭建各环境问题之间的联系
- 执行数据评估，将其用于差距分析
- 确定需要采取的必要措施，并根据基准测试设定环境与能源目标和计划
- 开始编制文档、手册和作业程序

### 执行环境评估

工厂必须建立程序，用于记录与活动、产品和服务的环境因素、能源效率、能源使用和能源消耗有关的所有法律、监管及其他政策要求。

工厂应了解自身与环境之间的联系。这包括工厂中可能对环境造成影响的活动和产品的比例，还包括释放、排放、材料的利用或重复利用、噪声排放等。工厂应确认并记录对环境具有直接和间接影响的任何环境因素。该过程应包括正常和异常工艺条件、车间的开工和停工以及可预见的紧急情况：



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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

- 在正常操作条件下
- 在不定时出现的意外操作条件下
- 在发生事故和紧急的情况下

该记录应包括：

- 环境/空气中的受控和不受控排放
- 水体中的受控和不受控排放
- 不受控制的地面污染
- 固体废弃物和其他废弃物
- 土地、水、燃料、能源及其他自然资源的使用
- 噪音、粉尘、气味、振动和照明
- 对生态系统和特定环境领域的影响

必须记录首次评估的结果，并对其进行基准评估。每年应至少进行一次环境评估，或者在生产环境发生重大变化的情况下进行评估。

环境风险评价的其他潜在方面包括：

- 所有涉及环境的活动的风险
- 合规义务
- 相关各方（客户、邻居、供应商等）可能会对管理体系的成功实施（例如，通过泄漏、水资源可利用性和短缺、对气候变化的影响）造成影响的需求和期望
- 与潜在紧急情况有关的风险，例如储存易燃液体、压缩气体、储罐及其对环境的影响

可能的风险评价方法见 4.5.10 章节

#### 内部环境管理审核

工厂应制定一套用于确定 EMS 适用性的程序，特别是一套审核计划。该程序的关键在于评估环境管理活动及其有效的引入和实施。每年应按照包含 3 年内主要待审事项的审核计划，对环境影响和管理体系进行内部审核。



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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

应发布相应的审核报告，包含内部审核员姓名、审核结果以及纠正与预防措施计划。尽可能附上照片作为证据。此外，还应确定由谁负责确保采取纠正措施，以及完成纠正措施的日期。

审核计划应包括各个活动、领域和地点，以：

- 根据各活动与环境的相关性及其过往审核结果确定对各场地和活动的审核频率
- 确定引入和实施责任
- 说明执行审核的人员资格要求。具体而言，该类人员应满足以下要求：
  - 在审核过程中最大程度地独立于其他活动
  - 拥有相关专业领域的经验
  - 如果需要，可以获取专家的支持
- 实施审核的文档记录范围
- 审核报告程序

#### 生产单位的文档记录

应保持一份清单或数据库，其中包含现有生产单位及其应用领域、机器年限（制造、调试日期）、工作区域中特定潜在生态风险和危害的说明。

#### 记录

应保持公司所用化学物质和混合物的清单或数据库。其中应包含内部工厂产品名称、准确的化学名称以及有关其平均储存量的信息。应指出潜在的生态危害和健康与安全参考（水危害、易燃性、危险和安全标志、工作场所浓度）。应对有害物质进行相应的分类。所有化学品均要填写最新的安全数据表。

#### 水资源

应对工厂的水质进行监测。应记录能确保优质生产的所有必要类型的进水处理，并保留这些处理的操作记录。如果进水质量发生变化且无法进行统计监



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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.

测，应对水中的有害成分进行检测。每年应对用水量至少进行一次记录和归档。

#### 废水及污泥

应在整个工厂的废水分布图上记录排放点、废水管路、废水处理厂和最终去向。应指明通向公共污水处理厂和/或水体的转运点。

应记录各个工艺步骤的排放点和废水类型（地下水、地表水、处理过的水），并记录到流程图中。

所有废水的目标应当是最大程度减少不期望化学品的体积、浓度和释放到环境中的废水毒性，并最图终力完全消除污水的排放。废水中应尽可能不含有害化学品。应使用化学品管理和处理方案来实现这一目标。首选消除原料中的有毒物质。污水处理厂的污泥中不应包含有害物质。应使用化学品管理和处理方案来实现这一目标。就废水处理而言，首选方案是消除原料中的持久性、毒性和生物累积性物质。

#### 废气排放

应将所有通过分离管道排入外部空气的单独排放源和相应的烟囱高度和直径记录在排放图上。应提供现有废气结果和限值作为参考。

此外，应确定产生不受控制的排放物的生产步骤和来源。

#### 能源

生产能耗对经济利益具有重要影响，也是一种重要的生态要素。负责且经济的能耗对于环保生产至关重要。

实现经济能耗的第一步应当是编制针对特定部门或特定工艺的能耗平衡表，以便识别薄弱环节。





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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

应列出各种能源形式的年度消耗量和成本平衡表。如有必要，应针对较大的生产模块将包括处理量在内的信息详细记录在平衡表中。

应在这些单独的平衡表中指明选择使用了哪些节能措施。

就生态安全性而言，应优先考虑使用替代能源，特别是可再生的非化石能源。

#### 固体废弃物

应记录废弃物和残余物质的类型、数量、来源和处置。应编制处置成本和使用成本平衡表，包括可能的替代处置办法。主要目标应当是避免产生废弃物。

大多数国家都制定了有关危险废弃物和非危险废弃物的法规和定义。应遵守这些法规。应提供物质平衡表以及对废弃物产生和处置的评估结果，该评估结果中应包含基于“零排放”目标的改进计划。

#### 包装和运输

无论何种包装，其最大用量应为无法通过技术手段避免的用量。应尽可能避免使用一次性包装材料。

应首选可重复使用的包装系统或由回收材料制成的包装。

应记录包装材料的数量及其处置。

#### 交货和储存

工厂的总平面图应包括交货、储存和提供化学品的区域。应标出最重要的区域。

应保持包含交付化学品、交货地点、储存地点和使用地点以及交付和储存类型的清单或数据库。

应遵守交货和储存的相关法律指令。

有害化学品储存地点的设计应使化学品不会逃逸到环境中。只有受过专门训练的有限人群才能搬移化学品。在生产区域中，只允许储存出于技术角度绝对必要的数量。所有装有这些化学品的容器都应标有适当的警示标志(GHS)和急救措施(采用国际公认的象形图以及危险和安全标志形式)。



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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)

在进货检验过程中，应对原材料中有害物质导致的潜在生态危害进行评估。

必须根据材料的性质来考虑所有种类材料的储存条件（例如，冷藏和干燥储存、光敏感性、生物杀灭剂的应用）。

应基于环境要素对供应商进行评估。

### 认可的第三方认证

附录 8 中列出了对环境管理体系具有重要意义的受认可的第三方证书。

如果工厂通过第三方认证体系获得认证，必须向 OEKO-TEX® 提供包括证书和有效期限在内的认证过程文件和记录。

## 社会责任

本模块涉及工厂或组织的条件，重点关注应对员工及其工作条件尽到的责任。社会责任涉及以下问题：童工和青少年工人、工资和福利、雇佣状况、结社自由、劳资协议和包括加班规定在内的工作时间。该模块还涉及如何在工厂中防止骚扰、虐待和歧视。它涉及任何类型的强迫劳动和卫生设施、更衣室、食堂/饮食区和宿舍的条件。

“社会责任”模块包括管理体系，该管理体系可确定目标、制定计划并指定人员负责培训、监测和评估工厂的社会和工作条件。管理政策的制定必须参照工厂的社会和工作条件，并遵守指定的内部和外部义务以及国家和地区的法规要求。

### 目的

“社会责任”模块涵盖以下主题：

- 关于社会责任的管理政策（包括目标、计划和目的、人员和责任如管理代表、员工培训、包含时间表和责任的详细措施、操作程序的文档记录以及社会责任评估、内部审核和评估的实施）



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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

- 符合适用于工厂的所有法律、国家及其他要求
- 与重要的利益相关者沟通
- 防止雇佣童工
- 为青少年劳动者提供安全的工作环境
- 劳务合同
- 工资和福利
- 结社自由/集体谈判权
- 防止骚扰和虐待
- 防止歧视
- 防止强迫、强制劳动以及监狱劳工和剥削
- 提供足够的卫生设施、食堂/饮食区和宿舍

#### 一般问题

#### 社会责任管理系统

要建立社会责任管理体系，第一步应当是针对社会和工作条件相关问题制定组织责任声明并确定管理结构。公司管理层指定至少一人负责“社会责任”模块的各个方面。然后，此人负责制定与社会责任相关的所有目标和措施，包括通过内部审核来识别风险和问题、编制文档以及启动纠正措施。执行并监督内部和外部审核是这项责任的一部分。负责人应面向所有员工定期开展以社会责任（例如行为准则）为主题的培训讲座，并保留培训记录。负责社会责任的管理层代表应直接向工厂的高级管理层报告。社会合规负责人必须定期接受培训，了解“社会责任”模块的各个方面，包括社会合规方面的任何风险。

应制定并记录管理体系政策，以确保其适应工厂的活动和服务及其社会影响。除法规要求以外，工厂还应满足所有监管规定及任何其他规定。其目标必须是防止出现负面社会影响。社会责任管理体系可以与现有的合规体系或公司品质合格承诺保持一致。工厂必须制定包含所有措施、责任、目标和程序在内的书面社会政策和/或品质合格承诺来保障其社会责任。书面社会政策或品质合格承诺应由上级管理部门的代表签字。如果工厂通过第三方认证体



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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-

ties.系获得认证，则应向 OEKO-TEX® 提供包括证书和有效期限在内的认证过程文件和记录。

社会责任管理计划应包括详细的措施、时间表和责任。应定期进行社会责任绩效审核，包括员工满意度、生产率指标和员工绩效。社会责任绩效审计的结果和由此产生的措施应说明用于制定和实现目标的方法。应呈现满足社会和工作条件要求的规定程序及其文件。

应记录实现社会责任管理计划应达到的基准和关键指标。不符合或不满足这些要求时，应以机密方式上报。应记录未实现或不符合基准的目标和关键指标。应当有一份内含所有经正式提交的投诉及其解决方案/纠正措施的内部清单。应该认识到，应将提升可持续性作为现有工厂的目标。不管怎样，工厂都应以提升可持续性为目标制定特别计划来管理新项目和发展：

- 必须实现并明确定义社会目标
- 需要制定正式的项目变更程序和变更单，以确保与目标和目的一致性
- 管理原则应与现行质量管理标准一致
- 顶层管理者需定期审查工厂内基准和程序的妥善性和持续有效性

应书面陈述工厂的社会责任目标并在内部和/或外部发行。应对这些目标和成绩加以记录。目标应与社会政策和/或品质合格承诺保持一致。为确保供应商和分包商在其整个影响范围内遵守社会政策或品质合格承诺，工厂应开展有关采购实践的培训课程并监控订单数量。工厂应拥有文档记录系统，确保符合社会责任管理体系的要求。





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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

这些目标应尽可能构成切实可行的可量化承诺，即在一定时间段内持续提升与社会责任相关的绩效。目的和目标应高于法规要求。

#### 法律和法规

应提供形成公司合法存在和合法经营基础的所有文件集，并随时准备接受验证。应按一定的结构框架提供影响组织的相关国家、地区和国际法律法规清单，以供接受审核和审查之用。

工厂应清楚与工厂运营相关的当地和国家法律、法规及其他要求，并且员工应当能够得到和理解这些要求。

这适用于以下规定：

- 适用于工厂、运输设施、实验室、办公室等的工作（即，针对特定产品和服务的经营活动）的规定
- 适用于按指定使用产品、商品、服务和性能的规定
- 适用于相关工业部门的规定
- 基于公认的全球社会标准、准则、原则或合规体系的规定

负责人必须担任与社会责任相关的所有事宜的联系人，并熟悉这些法律法规的内容。负责人应确保遵守这些法律法规。应确保遵守所有当地（或国家）法律要求、《国际劳工组织(ILO)工作中的基本原则和权利宣言》、《世界人权宣言》和 OEKO-TEX® STeP 要求，无一例外。

#### 利益相关方之间的关系

应鼓励工厂中包括高级管理层在内的工作人员与其利益相关者保持联系。这种联系必须超越地方或国际 NGO 和工会的要求。与业务合作伙伴的对话是了解与工厂相关的所有各方的愿望和要求的重要工具，这些相关方包括工人等个人以及供应商、NGO 或该地区的政治代表等组织。工厂应考虑对当地社区进行投资，以支持当地的发展。



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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

与所有这些利益相关方保持对话，应用作发展和审查现有管理体系的一种手段。工厂应记录与所有相关业务合作伙伴组的所有通信和沟通。

应将优选基于既定指南（例如，GRI；另请参见 4.3.9.2）编制的可持续报告作为向相关各方和公众传达详细信息的基础。

#### 童工及青少年工人

在工厂的所有经营活动以及与其商业活动相关的各部门（包括其供应商和分包商）中，应避免使用童工。根据 ILO 第 138 号公约规定，最低就业年龄为 15 岁。如果地方或国家拥有更高的法定最低年龄，则工厂应遵守地方或国家的法规要求。为防止最恶劣形式的童工劳动，工厂还应遵守 ILO 第 182 号公约。

必须制定书面社会政策，以便在发现工人年龄小于最低年龄的情况下进行响应、采取纠正措施和沟通，并作为实施人才招聘和内部审核预防体系的参照。该政策必须符合儿童的利益。为避免雇用低于最低年龄的儿童和青少年的任何风险，所有工人必须出示身份证、出生证明或户口本等有效证件证明自己的年龄。应使用预防体系来持续改善招聘程序。对管理人员和人力资源专员、当地的卫生/社会工作者以及学校和教育机构代表进行培训，也有助于实现此类改进。

如果工厂雇佣了年轻工人，应制定招聘年轻工人及其应受待遇的书面政策。青少年工人是指年龄在至少 15 岁至最多 18 岁之间的劳工。这些工人应受到特殊工作条件的保护。严格禁止青少年工人在包含有害、有毒和危险物质的工作条件下工作，或者在风险特别高的区域内工作（包括夜间工作）。工厂应遵守所有关于青少年工人的法规要求，包括工作类型、工作时间和职业安全。

工厂中至少应有一人负责执行所有法律规定，并照顾青少年工人的所有需求和福利。此人负责所有措施，以尽可能减少年轻工人的任何风险，并促进福利，例如福利计划。年轻工人每周应拥有足够的上



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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-

ing system should ensure that young workers have sufficient time to spend in school, and that their working hours do not exceed 10 hours per day. Management policy should 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.

#### 工资和非工资福利

工厂的所有工作人员都应获得相应酬劳。至少应获得最低工资或者业内或共同商定的工资（以较高者为准），应遵守 ILO 第 26 和 131 号核心公约。工资和非工资福利（包括计件工资）应符合有关工资、遣散费和非工资福利的所有法律要求。

这些法律要求包括工资奖金、加班费、周末和法定节假日工作以及节假日工资。OEKO-TEX® STeP 鼓励所有工厂在不计算奖金的情况下，根据地区需求和要求支付能够满足所有基本要求和成本的工资，同时保证正常工作时间。体面生活所需的合理工资包括食物（工人及其家人）、住房、必要的需求（医疗保健、服装、交通、教育）和意外事件储蓄的报酬。工厂应制定策略或路线图，以实现所有员工的生活工资。企业应设定可实现的目标，如每年将工资水平拉平，或设定在 3 至 5 年内实现生活工资的目标。与买家（品牌）签订协议，通过定价或承诺来支持生活工资基准，应成为策略/路线图的一部分。应考虑在内部或外部对工厂所在地区的生活工资进行监测，如亚洲最低工资联盟（Asia Floor Wage Alliance）计算的最低生活工资、与全球生活工资联盟（Global Living Wage Coalition）合作的 Anker 方法、非政府组织（如清洁服装运动）的支持、与工会（有或没有雇主）的谈判或与品牌商的合作。

工厂的社会责任管理系统应促进持续监控工资情况，并将社会发展和当地框架条件纳入考量。工厂的内部监控系统应持续改善。该流程应（最好）基于集体谈判协议，或考虑到工人的需求和支出的其



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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 piece-work 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

他平衡谈判。这种定期审核应由社会合规官执行。该流程应包括监测与工资有关的法律要求、行业内集体谈判情况和通货膨胀率。监控到的变化应纳入持续提高薪酬的考量。如果公司提供非工资福利，则所有工人应享有同等条件。

禁止将扣除工资作为惩戒措施。只有在符合国家或地区法律规定的情况下，才允许扣除工资。无论在何种情况下，工资扣除均应以书面形式记录在工厂人事档案中，并应以易于理解的方式将此类工资扣除情况告知工人。

工厂应提供有关扣除、最低工资、福利和非工资福利的书面工资和福利政策。该社会政策还应包括有关轮班工作和加班的规定。应向所有工人提供工资单，其中包括工资详细信息、当前酬金期、加班费和计件工资费率计算。

所有工人都应定期接受有关非工资福利、计件工资率和加班费计算的培训。计件工资率应在书面公司政策中通过可实现的适当目标加以规定。应为所有员工提供社会保险，其缴款和税款应通过企业支付，并显示在工资单上。社会保险应涵盖确保获得医疗和保健服务，以及整个生命周期的收入保障，特别是在生病、失业、工伤、生育、家庭责任、残疾、失去家庭经济支柱以及退休和老年期间。工资应以支票、银行转账或类似方式直接支付给工人。工资应按规定期支付（至少每月一次），不得拖延。设施应提供意外伤害保险或其他赔偿制度，或者设施应保证并记录责任义务，以确保在发生意外伤害事故时向工人支付赔偿金。

#### 雇佣关系

员工（包括外包员工和在家办公员工）均应收到书面雇佣合同。员工最迟应在他或她工作首日收到正本合同。该雇佣合同必须包含确切的雇佣条款和条件，包括工作时间、福利及薪酬。应遵守相关法律规定，如源于集体协议和 ILO 中有关雇佣合同的核





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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

心劳工标准的法律规定。通过这种方式，公司力求为员工提供最大程度的保障。雇主须确保员工已理解合同，并确保在经认可的谈判协议的基础上执行工作。

工厂应在招聘当天为每位员工创建人事档案。该人事档案应记录员工参加内部培训课程事宜、违纪行为事件以及由此需要采取的措施。

工厂应制定书面招聘和解聘政策以及书面发展计划和财务效益政策。人力资源部门及其他相关部门的员工应定期接受培训，确保遵守该政策以及当地和国家法律要求。禁止在招聘程序中使用职业介绍所。应将招聘机构视为分包商，并根据本标准对其进行监督。来自招聘机构的外包员工享有与其他员工相同的权利和福利。人力资源部门应记录并持续监控临时工、外籍工人和在家办公人员的数量。还应记录波动率。工厂的产假应符合所有法律要求。如果没有适用的法律要求，公司应根据 ILO 第 183 号公约的框架条件保证带薪产假，并制定内部政策。

#### 结社自由和集体谈判权

工厂应遵守有关结社自由和集体谈判权的所有地区、国家和国际适用法律要求。在法律禁止或限制结社自由或集体谈判权的国家，公司不得妨碍按照国际劳工组织第 87、98、135 和 154 号核心公约的规定，以其他合法形式代表工人进行独立和自由的集体谈判。如果公司所在国家/地区的法律禁止或阻碍工会组织促进和捍卫员工或雇员的利益，企业应明确提倡其他可代表工人的替代方式。工人应有权组建、加入和组织工会/集体谈判。工厂应鼓励工人提名和选举一名代表，作为向管理层反映工人需求和建议的发言人。



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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 Diligence 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-

必须向所有工人提供关于结社自由、集体谈判权利指南、程序和适用法规要求的定期培训。书面管理政策应包括所有关于结社自由、集体谈判协议和相关法律规定的关键指标。工会和员工代表应有权访问所有工作站。

管理政策应保护员工代表和所有工会或工资协议成员，使其免于因其所做之事而受到歧视、骚扰、恐吓或报复。

#### 申诉机制

OEKO-TEX®参考经合组织(OECD)制定的《服装和鞋业负责的供应链尽职调查指南》，并采用运营层面申诉机制的核心标准：合法性、可访问性、可预测性、公平、透明、基于对话性

工厂应实施正规的沟通制度，包括内部申诉机制和程序，以便员工可以向工厂负责人进行投诉（例如意见箱）。该机制必须包含纠正措施，以描述投诉类型、分析、补救和采取的行动。

除内部申诉机制外，工厂还必须设立相关机制，以便所有员工都能够进行外部投诉。可采用 OEKO-TEX®投诉机制或其他外部投诉机制。建立 OEKO-TEX®投诉机制，旨在向 OEKO-TEX®秘书处通报任何违反公司要求的违规行为。应将投诉发送至电子邮件地址：[complaint@oekotex.com](mailto:complaint@oekotex.com)

内部申诉机制和 OEKO-TEX®投诉机制应面向所有员工，包括电子邮箱 [complaint@oekotex.com](mailto:complaint@oekotex.com) 也应对其开放。申诉机制不应削减其他解决纠纷的方式。

#### 工作时间

工厂工作时间应符合所有国家和地区适用的法律要求、ILO 第 1 和 14 号核心公约和工资协议。其中包括正常工作时间、加班、假期、淡季工作和法定节假日。工人应有机会参加宗教节日。为避免工作时间过长，工人应至少每七天休息一天。每周工作时间不得超过 48 小时（不含加班时间）。



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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 ombudsman 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

应在自愿的基础上加班。仅允许将加班安排作为集体谈判协议的一部分。加班费必须按溢价支付，并且每周加班时间不得超过 12 小时。加班费标准是正常工资的 125%，或根据法规要求或集体谈判协议确定，以较高者为准。由于每年有淡季和旺季之分，工厂应以书面形式确定在这些时段的最长工作时间，并将这一规定传达给员工。

所有员工在工作期间应获得足够的休息时间，遵守包括针对弱势群体（但不限于未成年工、年轻母亲、孕妇）的规定。在这方面，应遵守法律规定和适用的集体谈判协议。

员工、管理层和董事应接受有关工作时间指令和适用法律规定的培训。应定期举办这些培训课程。工厂应指定一位熟悉法律规定的负责人，全天候监控关键指标和记录。

#### 骚扰和虐待

应维护所有员工的尊严并给与他们尊重。工厂的工作条件应遵守当地、国家和国际上有关工作场所骚扰和虐待的所有适用法律规定。不允许将体罚或扣除工资作为惩戒措施。也不允许对工人进行口头攻击和施以任何形式的胁迫。惩戒措施的制定应考虑现有的法律规定，并且应以书面形式记录在案（例如，记录在人事档案中）。

应编制书面政策，以避免身体、心理、言语以及性虐待和性骚扰（包括手势和触摸）。该政策还应包括预防体系，以避免在工作场所、宿舍或工厂其他区域发生骚扰和虐待。用人单位不得姑息此类行为。应建立旨在消除骚扰和虐待的匿名投诉体系。应指定可信赖的专员负责审查工人的匿名投诉。此类监察员应分设男性和女性。

应定期对所有员工进行有关预防工作场所骚扰和虐待以及适用法规要求的培训。预防还包括传达惩戒措施。对于遭受骚扰/虐待的工人，应提供有效的援



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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

water or welfare plans, such as professional counselling. To uncover the risk of harassment and abuse, social compliance audits should be conducted on a regular basis.

#### 歧视

工厂应遵守 ILO 第 110、111、159 号核心公约以及当地、国家和国际上有关所有形式的歧视的适用法律要求。

应对所有工人一视同仁，并根据表现和技能提供同等的机会，不得因为人种、出身、残疾、宗教、等级、种族背景、性别、年龄、性取向、工会或党派派别，或因任何其他个人及身体特征而产生歧视。平等对待全体员工应是非歧视性雇佣、招聘和升职政策的内容。工厂在招聘员工时应鼓励并实现多样化，应不论员工性别、种族背景或其他个人及身体特征而提供同等薪酬。用人单位不得姑息歧视行为。公司政策必须包括识别和审查任何歧视风险的监控措施。应开展例行调查，评估工人是否以及感受到何种程度的公平、平等和满意的待遇。

如果法规要求进行医学检查（例如，HIV 检测），不应将其视为歧视性举措，还应予以记录和监督。严格禁止在招聘过程中和雇佣期间进行妊娠医学检查。

工厂的工人、管理人员和董事应定期接受有关反歧视指令和适用法律规定的培训。

#### 强迫、抵债、契约和监狱劳工

工厂应遵守 ILO 第 29 和 105 号核心公约以及所有区域性、国家和国际性有关强迫劳动、剥削以及强制性监狱劳工的法律要求。应制定政策确保员工不受人身自由限制，持有或控有自己的身份证、工作证及旅行证件。严禁任何形式的奴隶制，如童工。依据劳动法，员工和工人在工作时间内，允许使用洗手间、喝水和休息，而不用担心纪律惩罚。





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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-

公司政策应严厉禁止在招聘过程中和续聘期间收取订金或保证金。此外，应禁止对人口贩卖予以任何支持。如果工人给予合理的通知，则可以自由辞职，而不必支付违约金。在非工作时间内，工人有权不受任何限制地自由行动。

工厂必须实施监控系统，防止招聘过程出现雇佣强迫、抵债、契约和监狱劳工的任何风险。其中包括禁止使用劳工代理人。

工厂应向工人、管理人员和董事提供有关防止强迫、抵债、契约和监狱劳工以及合同劳动实践和适用法规要求的培训。保安人员应定期接受特殊培训。

#### 卫生设施、更衣室、食堂/就餐区和宿舍

工厂应遵守当地、国家和国际上有关卫生设施的所有适用法规要求。应为工厂区和宿舍区的所有工人提供数量充足的卫生设施，特别是厕所和洗手间。这些卫生设施应免费使用，工厂应雇用相应的人员进行清洁和维护。

如果工厂在工作时间内提供食物，并且如果有员工住在工厂内，则食物和宿舍应符合当地和国家的所有法规要求。工厂管理政策应包括清洁和维护良好的食品储存和食堂/就餐区。提供的食物可供工人选择，并且应符合当地情况。如果提供食物，则应保证适当的数量，并且应符合卫生条件。应随时为所有工人提供免费的清洁饮用水。公司应对水质进行监督。

工厂的宿舍应符合当地和国家的所有法规要求。为监督其合规情况，工厂必须定期对卫生设施及其维护情况进行评估。宿舍应位于独立于生产区和储存区的建筑物内。宿舍中应有足够的私人空间且应当保证隐私。宿舍应由工人自行选择是否居住，并且应符合当地情况。应遵守第 4.6.3 章中的建筑物安全性要求。在适用的情况下，应提供符合法规要求的幼托设施。



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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-

工厂应指定至少一人负责确保维护良好、安全和清洁的更衣室、卫生设施、食堂/就餐区和宿舍的所有需求和任务。应告知员工该负责人为处理这些问题并直接向管理层汇报的联系人。

应制定涵盖所有卫生设施、食堂/就餐区和宿舍相关事项的管理政策。工厂应向工人、管理人员和董事提供有关卫生设施、食堂/就餐区和宿舍管理政策的培训。

### 认可的第三方认证

附录 8 中列出了对社会责任具有重要意义的受认可的第三方证书。

如果工厂获得了第三方认证体系的认证，则应向 OEKO-TEX® 提供包括证书和有效期限在内的认证过程文件和记录。

### 质量管理

质量管理包括管理体系及其引进和应用。ISO 9001 是首选受认可的模型。该标准具有重要意义，并且是全球公认的最成功且最可靠的文档和实践标准。它还包括一般管理领域及其他模块未涵盖的其他领域。

实现卓越经营的过程以及风险评价和公司治理等现代方法构成 OEKO-TEX® STeP 质量管理的一部分。这些问题极其重要，并且在可持续性领域具有重大影响。公司可持续的行为与公司的质量方针以及与其他公司达成的协议密切相关。因此，管理层对可持续性的关注非常重要。

### 目的

引进质量管理体系(QMS)和卓越经营、风险管理和公司治理等其他管理工具是基本的战略性业务决策。这些因素的设计和范围在很大程度上取决于工厂的



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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-

需求/利益。ISO 9001 或 OEKO-TEX®均未规定运用这些管理体系的具体方式。基本体系最重要（例如 ISO 9001）。通过 ISO 9001 认证不是获得 OEKO-TEX® STeP 认证的强制要求。但是，任何质量体系都应保持产品质量和工艺，并客观地展示各业务领域的持续改进，无需（非强制要求）涉及书面程序。

需要拥有 QMS 框架才能获得 OEKO-TEX® STeP 认证。OEKO-TEX® STeP“质量管理”模块的范围包括 QMS 以及风险管理和公司治理等其他方面。从本质上讲，QMS 须满足 ISO 9000 系列标准或同类标准的要求。存在此类体系（无论是否通过认证）是 OEKO-TEX® STeP 的入门级基础。通过证书提供此类体系的证明，可最大程度减少 OEKO-TEX® 验证和审核所需的时间和精力。

例如，ISO 9000 系列标准中所述的质量管理体系包括形式要求。以下要点/段落具有一般性，无论所提供产品的类型或尺寸如何，所有部门均适用。

有效的质量管理体系至少应包括以下内容：

- 品质方针
- 过程描述（记录工作流程和物料流的文档）
- 明确界定的责任，需在公司的各个层级公开并使人知悉
- 产品可追溯性
- 质量控制体系
- 持续的员工培训和知识管理
- 持续的改进过程

质量、运营和可持续性政策的管理及其目标

QMS 是一种管理工具和对实现质量管理目标所涉及的过程和活动的文档描述。它须包括描述 QMS 程序及其引进、维护和沟通的文档。除用作实施 ISO 9001 标准的基本体系以外，OEKO-TEX®还重视实现卓越经营并在风险管理和公司治理领域引入现代管理方法的过程。



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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:

公司须建立、运营和维护至少一套 QMS。QMS 的格式应确保组织活动与指定的质量管理政策及其相应目标一致。在此，国际标准 ISO 9000 系列被认为是集成 QMS 平台的模型模板。

组织应提高其效能，尤其是关乎其质量和可持续性目标的效能。为此，OEKO-TEX® 采纳了 ISO 9001 标准的一般要求和文档要求（例如质量手册、文件控制和记录控制）。

### 管理层责任

#### 管理层职责

高层管理人员需确保承担管理体系的责任。管理层成员应就该主题发表明确意见，并通过以下方式证明其对发展和促进管理体系的关注：

- 告知所有利益相关者质量的重要性
- 制定和实现目标
- 为其体系确定质量方针和目标
- 提供足够的资源（如人力、厂房、设备、信息技术）
- 确保进行充分的规划
- 定期验证体系效能

#### 关注客户

管理层应确定客户要求并努力提高客户满意度。

#### 品质方针

管理团队有责任遵守相关要求（包括法律规定）以使管理得到保障、遵循质量方针以便管理审查并提供必要的资源。工厂应制定并应用质量方针。管理团队应致力于满足质量体系的要求，包括持续改进。管理团队应传达该方针并确保其得到理解。

管理层应确保质量方针：





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- 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

- 适当
- 构成实现持续改进和业务效率的义务
- 构成可用于确定并评估目标的工具
- 已得到传达和理解
- 包含任何指定/商定的改进

管理团队应谨慎制定应用/使用质量方针的系统计划。质量方针有助于制定可量化的质量目标。

#### 质量策划

管理团队必须设定可测目标和实现这些目标的合适计划。管理团队必须确保计划在组织内的有关地点得以实施

#### 责任和授权

管理团队必须明确和传达各人负责的任务，并确定职责和权限。高层管理人员应全面负责质量体系。应建立有效的内部沟通方法。

#### 内部管理评审

管理体系是一个不断发展变化的体系，应保持动态。应定期对 QMS 进行频繁的定期审查。工厂应制定一套用于确定 EMS 适用性的程序，特别是一套审核计划。该程序的关键在于评估环境管理活动及其有效的引入和实施。每年应按照包含 3 年内主要待审事项的审核计划，对环境影响和管理体系进行内部审核。

应发布相应的审核报告，包含内部审核员姓名、审核结果以及纠正与预防措施计划。尽可能附上照片作为证据。此外，还应确定由谁负责确保采取纠正措施，以及完成纠正措施的日期。

必须由管理层对该体系及其性能进行审查，其中应采用一种输入和输出的方式，将考虑以下几个方面：

- 客户回馈
- 绩效，不合规



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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.

- 审核
- 采取的措施
- 变化和进步需要
- 目标的趋势
- 纠正趋势需采取的补救措施

须记录包括决定和措施在内的审查结果。

#### 资源管理

管理层须确定系统所需的资源（人力资源、财务资源和物质资源），并确保不受限制的运营并通过高质量产品和服务提高客户满意度通常所需的资源。

管理层应确保员工能胜任工作，并且应雇佣能保证服务/产品符合要求的员工。管理层应确定需要哪些技能；并且应促进和获得这些技能。应确保让员工接受恰当的培训（根据目标）。此外，必须对所做的培训/所采取的措施进行有效性评估。管理层应确定满足体系和工厂要求所需的基础设施和工作环境。应建立并维持这些条件。

#### 产品或服务要求

管理团队应策划并制定高质量产品/服务所需的流程。管理团队应清楚和了解各产品/服务的要求，确保客户流程有效并且这些要求得到满足。应采用有效的方式与内外部利益相关方及客户进行沟通。

须回顾针对最终消费者进行的产品安全性评估，并且如果可行，可通过证书（例如，STANDARD 100 或 OEKO-TEX® LEATHER STANDARD、GOTS、PSA 型式检验证书、EN 14682:2008、EN 71-1 等）加以证明。

应在所有交付产品或随附文件上注明正确的材料成分。

应了解产品中需要和不需要的物质的潜在有害后果（人类生态学）并通过选择合适的工艺和化学品来减轻这些后果。



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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-

#### 设计和开发

必须建立设计和开发产品/服务的有效流程。它们应考虑到以下要点：

- 规划设计/开发
- 定义设计/创建/开发所需的输入
- 以允许验证输出的形式创建设计/计划
- 在合适的阶段对设计/计划进行审查
- 确保结果符合商定和规定的要求（验证）
- 验证设计（若可行）
- 对设计阶段发生的任何变更进行管理

#### 采购(供应商和承包商)

货物、材料、服务或产品的采购、外包或分包必须受控。采购的所有货物/服务都必须满足所有指定的要求。应评估和监督供应商和供应链。应编制计划采购说明，确保满足所有相关要求。供应商、次级供应商、承包商和分包商应参与改进社会工作条件、安全性、环境事项以及相关措施。

因此，供应商、次级供应商、承包商和分包商应：

- 建立并维持适当的程序以根据分包商满足 STeP 要求的能力选择分包商
- 维持适当的文档记录以满足 STeP 要求
- 从人身保护、工人权利和在工厂内访问员工信息方面为外包工人提供培训选项
- 提供满足所有要求的证据。提供这些证据分不同的级别。供应商、次级供应商和/或承包商、分包商应签署 OEKO-TEX® STeP 供应商行为准则（详见附录 1），这是最低要求。
- 级别 1：工厂和供应商、次级供应商、承包商或分包商之间签署合同协议，以遵守供应商 OEKO-TEX® STeP 行为准则中的要求。如果未满足这些要求，根据合同规定，工厂有权利和义务立即终止与供应商、次级供应商和/或承包商、分承包商的业务关系。



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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.

• 级别 2：符合 STeP 最低要求且经客户验证的书面工作承诺。

• 级别 3：根据 OEKO-TEX® STeP 执行并通过自我评估。

• 级别 4：执行并成功通过 OEKO-TEX® STeP 认证过程。

供货商应参与提高社会和环境道德的过程。

以下 STeP 原则适用于供应商、分供应商、承包商和分包商：参与供应链的所有公司都有责任确保供应链中所有前述步骤的合规性。供应链中的每位成员都应推广这一理念，并相应地使用他们的购买力。应明确记录可持续性政策（包括社会、安全和环境政策）、程序和期望，并将其传达给直接业务合作伙伴。使用 myOEKO-TEX® 是审查供应链“合规性”相关问题的有效工具。

#### 运营管理

应建立监视产品/服务供应结果的有效措施。

服务/产品应始终可以辨认，并且应在生产的所有阶段进行跟踪（可追溯性）。

对客户提供的任何财产（包括知识产权）和机密信息，应按要求悉心保管。在储存、交货等阶段，应按要求悉心保管产品/组件，确保它们保持良好状态。应确保生产过程和制造和/或销售的产品始终符合 OEKO-TEX® STeP 标准。

#### 测量和监视设备

编制测量方案时，应确保结果有效且符合 OEKO-TEX® STeP 标准的要求。

应确定所需的设备和工艺。应选择合适的设备或工具。应确保结果准确且保持准确。





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### 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-

### 测量，分析和改进

应制定合适的流程，以确保服务/产品满足所有相关要求（对于所有利益相关方）并且还包含改进措施。应监视并测量流程和服务/产品（如有必要），以验证是否取得了预期结果。这通过以下方式完成：

- 监视客户满意度
- 规划和实施系统内部审核的合适方案，包括流程
- 确保监测/测量该流程的过程（如果内部和外部审核及流程较复杂，须重新验证）合理
- 在合适的阶段监视并测量产品/服务；仅在满足所有要求时批准最终产品
- 设备和机器维护

### 不合规和纠正措施

应通过适当方式处理不合规现象，其中包括书面程序。应收集和分析信息，然后应决定确定体系运行状况和改进方法所需的信息。应收集、分析并利用这些数据来编制有效的起因分析和纠正措施的方法。

### 持续改进

应持续改进体系、产品和服务质量。需要采用系统的方法和程序来纠正不合规现象并防止其再次出现。需要采用系统的方法和程序来预防潜在的不合规现象或缺陷。

### 一般信息

#### 合法实体

应提供形成生产工厂合法存在和合法经营基础的所有文件集，并随时准备接受验证。

#### 法规

工厂应清楚与整个工厂相关的法律、法规及其他要求，并且员工应当能够访问并理解这些要求。这适用于以下规定：



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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

- 适用于工厂、运输设施、实验室、办公室等工作（即，特定于产品和服务的经营活动）的规定
- 适用于按指定使用产品、商品、服务和性能的规定
- 适用于相关工业部门的规定
- 基于全球公认的环境原则的规定

应按一定的结构框架提供影响组织的相关国家、地区和国际法律法规清单，以供随时接受审核和审查之用。此外，还应注意并向非政府组织或非营利组织提供其他超出或补充法律规定的组织义务。

### 原材料采购

在采购纤维或兽皮等原料时，公司应确保仅从能够证明其负责且可持续地工作的供应商处采购。原料供应商提供处于自然状态、改性状态或半加工状态的基本物质。这些物质用作生产工艺的主要物质，随后被转化为成品或半成品。

应定期测试和监测半成品和成品材料，例如在皮革生产过程中测试经预处理的兽皮中的六价铬。

#### 皮革来源

加工生皮的来源必须已知，且应符合 CITES（《濒危野生动植物种国际贸易公约》）和其他法律要求。我们建议使用来自动物养殖场/工厂的生皮和毛皮，这些养殖场/工厂已经经过有机牲畜养殖、动物福利等检测。应考虑农民的牲畜养殖方式。

#### Deforestation

工厂应提供证据，证明持续实施和执行了森林砍伐风险分析，以确保排除皮革制品来自合法和非法森林砍伐地区的风险。尤其对于产自巴西和巴拉圭的皮革，强烈建议实施严格的可追溯性系统，以控制和监控农场和社皮革供应商可能涉及在亚马逊生物群落中任何滥伐森林的情况。合理证据可以是：



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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.

- 屠宰场/肉类加工商过程监控系统合规报告的副本
- 第三方监控系统（例如国家组织）报告的副本
- GPS 地图系统陆地边界登记日期
- 基于地理空间信息系统(GIS)监测地理信息

此外，应了解农民饲养牲畜的地点上次发生滥伐森林的时间。

### 可追溯性

对于未加工或来料皮革材料，建议采用以下可追溯方法：

- 基本标准：通过物理标记和/或可靠的数据系统追溯至屠宰场集团、地区或国家（例如地理参照位置）。
- 高标准：通过物理标记（例如激光雕刻数字代码）和/或可靠的数据系统追溯至单个屠宰场和国家/地区。
- 最佳做法：通过物理标记（例如激光雕刻数字代码）和/或可靠的数据系统追溯至单个屠宰场和农场。

### 羽绒和羽毛的采购

在采购羽绒和羽毛以生产夹克、枕头、床上用品等时，应考虑仅从能够证明这些家禽在养殖过程中从未被活摘羽毛或强制喂食的供应商处采购这些物品。使用由例如 RDS（负责任羽绒标准）或其他相关标准提供的证据，有利于进行采购。必须遵守所有其他适用的法规要求。

### 羊毛

最好从能够证明羊毛或其他动物毛发来自受到以下“五种自由”对待的绵羊、山羊等的供应商那里采购羊毛：

1. 随时获取淡水和饮食来保持全面健康和活力，免于饥饿或口渴。
2. 提供适当的环境（包括避难所和舒适的休息场所），免于不适。
3. 提供预防或快速诊断和治疗，免于疼痛、伤害或疾病。



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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. 提供足够的空间、适当的设施并与同类动物为伍，自由表现（大多数）正常行为。
5. 确保提供避免精神痛苦的条件和治疗，免于恐惧和痛苦。

此外，还要确保采取管理和保护土地的最佳实践。除符合要求以外，通过例如 RWS（责任羊毛标准）或任何其他相关标准提供的认证证明来实施采购是有利的。

#### 木材/纤维素

预计用于制造溶解纸浆的木材/纤维素的来源是已知的。这对于粘胶/人造丝、莫代尔或莱赛尔纤维的生产尤其重要。在这个意义上说，不应使用来自古老和濒临灭绝的森林（例如热带雨林）的木材。应考虑采购带有 FSC®（森林管理委员会）或 PEFC™（森林认证体系认可计划）等认证证明并支持 CanopyStyle、CV 或任何其他相关倡议/活动的木材。应制定木材采购政策，考虑用棉花废料等回收材料作为至少 25% 的纸浆纤维或纸浆的来源。采伐应以环保方式进行管理，包括对采伐活动进行环境影响评估，并与木材和纸浆供应商建立长期直接的合作关系。

#### 风险管理

风险是在触发时导致问题的事件。风险管理是指识别、评估和按优先顺序处理不同类型的风险（ISO 31000 中将其定义为对目标的不确定性影响，无论这种影响是正面影响还是负面影响），并随后协调且经济地使用资源，以最大程度减小、监控和控制致命事故发生的可能性和/或影响或者最大程度提高实现的机会。如果风险会影响人身安全，则应特别关注风险评估。

OEKO-TEX®建议采用以下风险评价步骤：

- 识别风险和（潜在）危险并对其进行分类
- 评估重要、重大情况中与特定威胁相关的薄弱点
- 确定风险（即，在特定情况下发生特定类型的侵害的预期可能性和后果）





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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:

- 识别并实施适当的纠正措施

风险评价的主题可为：

- 与产品相关的风险以及与生产相关的风险（例如，供应商、客户或其他合同伙伴等重要利益相关方的损失）
- 财务风险（例如，业务相关合作伙伴的损失）
- IT 相关风险（例如，病毒、黑客及其他违法行为）
- 等等

风险评价应同时考虑潜在危险和实际影响。应定期开展风险评价。在风险评价时，应始终在评价中考虑到国家和地区差异（例如，社会标准、环境要求和基础设施）。此外，还应应对工厂的经济状况、组织稳定性和生产计划进行评价。风险评价及后续的优先次序可用作实施适当预防措施并改善工厂运营整体绩效的基础。

#### 企业管治

公司治理是指导和控制公司的体系。它形成董事会用于确保工厂与其所有利益相关方关系中责任、公平性和透明度的规则和实践框架。OEKO-TEX®建议遵守国家法规和经合组织公司治理原则。

#### 认可的第三方认证

附录 8 中列出了对质量管理体系具有重要意义的受认可的第三方证书。

如果工厂通过第三方认证体系获得认证，必须向 OEKO-TEX® 提供包括证书和有效期限在内的认证过程文件和记录。

#### 道德规范及合规性

##### 商业，道德，承诺与廉正

公司应向其员工和管理层发放一套书面指南。然后，他们采取的所有行动都应符合公司的主要价值观和道德标准。应包括以下原则：



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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
- 无一例外，透明公开并遵守所有适用的法律、法规
- 不参与任何可能在社会和环境绩效与经济利润之间造成冲突的活动。所有商业活动都应包括此类平衡的证明
- 不利用职位或权力通过不当使用非公开信息或滥用职权谋取个人利益（包括禁止从事内幕交易）
- 在所有商业交易和互动中公平（平等）行事
- 下列所有业务信息的使用和披露限制
- 及时向管理层报告任何非法或不道德行为，并在必要时向执法机构报告（即道德、法律或安全相关问题，对举报人没有不利影响）
- 不允许贪污行贿
- 不开展危险活动（与环境、健康和安全相关）
- 具备一切商业活动相关的文件
- 保护所有公司、客户和供应商资产，并且仅将其用于公司批准的适当活动（例如，保护商业机密信息）
- 确认自然资本和社会在商业中扮演的角色和体现的价值

The code of conduct can be found in Annex I.

行为准则见附录 I

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

#### OEKO-TEX®道德行为

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（在任何时候）发现任何不符合 OEKO-TEX® STeP 的情况或有关审核人员/支持机构的不当行为，无论由员工还是由管理层引起，都可以联系独立的法律顾问(complaint@oeko-tex.com)并转发相关发现。法律顾问会将匿名投诉转发给 OEKO-TEX® STeP 技术执行委员会（代表 OEKO-TEX®）。

#### 4.6 Health and Safety

#### 健康和安全

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/

该模块涵盖了生产工厂的职业健康和安全。其对工作场所条件例如噪声、灰尘、化学品风险、照明、热应激进行评估，并对利用防护服（例如 PPE）照料员工健康和利用安全机械/设备防止员工受伤的举措进行评估。该模块还涵盖工厂在预防火灾、建筑物安全、应急程序（例如火灾）方面的安



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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

全性以及发生此类事故时工人的安全性。此外，它还对生产及其设施的安全性进行评估。

#### 目的

必须随时考虑工厂的健康与安全绩效，并应特别注意以下问题和目标：

- 提供安全且健康的工作环境
- 保护工人免受噪声排放、粉尘污染和化学品风险的影响
- 为工作场所提供充足的照明
- 保护工人免受热应力的影响
- 在适用的情况下提供 PPE（个人防护装备）以保护健康与安全
- 建立识别健康与安全风险的体系
- 采取预防措施以免发生事故
- 举办培训课程以促进健康与安全
- 相邻工作场所引起的风险评估
- 预防火灾、爆炸等
- 提供所有可能类型事件（火灾、爆炸、化学品危害、自然灾害如洪水、地震、建筑物倒塌等）的应急计划
- 定义规则和程序，以便引进有效的健康与安全管理体系
- 定期执行内部审核
- “良好的内务运作”并确保干净、整齐的工作场所

#### 工作场所安全

##### 工作场所条件

工厂应实施控制措施，以预防危害，最大程度降低健康与安全风险。规划工作场所的容量时应考虑到最大人员容量，以防在出现事故的情况下引起恐慌性拥挤。生产和实验室设备（机器/设备）应配备紧急停止按钮以防万一。需要特别保护弱势群体，包括但不限于青少年工作者、年轻妈妈、孕妇和残障人士。对于暴露于特定风险的人员，应定期进行健康检查。



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

应向工人提供有效的听力保护装置，并指导他们在噪声排放水平高于 85 dB(A) 的情况下使用。必须清晰且永久性地标示具有该级别噪声排放的区域。在这些区域进行测量对于减小噪声排放至关重要，并且应绘制工厂的噪声分布图，记录所有相关的建筑物、储存区和受影响工人的职位描述。噪声分布图最好应包含各噪声排放源。应记录规划和引进的用于减小机械、建筑物等噪声排放的措施。

#### 粉尘/微粒物质(PM)

在粉尘污染较高的情况下，必须提供有效的防尘措施并对工作人员进行使用指导。必须清晰且永久性地标示有粉尘排放的区域（例如，纺织作坊中的纤维、染色车间的染料粉尘等）。为降低粉尘排放浓度，须绘制工厂的粉尘分布图，记录所有相关的建筑物、储存区和受影响工人的职位描述以及粉尘区、粉尘来源和粉尘类型。必须记录规划和引进的用于减小机械、建筑物等粉尘排放的措施。吸入棉尘可能导致呼吸道疾病（例如，慢性支气管炎、哮喘等），因此应通过上述符合 PPE 要求和法规要求的措施加以控制。附录 6 包括有关该主题的清单，其中列出了工作场所粉尘暴露的建议限值。有机粉尘（如棉尘）易燃，具有发生爆炸的潜在危险。在积累或形成有机物质云的过程中，应避免潜在的火源。必须始终遵守当地和国家有关工作场所粉尘排放的法律要求。

#### “喷砂工艺”

喷砂可能在工作区域造成高浓度粉尘污染并导致健康问题，因此是附带条件的工艺或需要获得许可。应由独立的授权实验室/检测中心对空气中的二氧化硅和结晶石英（可吸入部分）参数进行分析，以确定适用的方案。应在可能的情况下考虑采用替代程序来改善工作场所的空气质量。甚至应考虑将流程自动化。附录 4 中列出了工人可吸入的结晶二氧化硅的受限浓度。





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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

#### 使用化学品

就化学品风险和可引起过敏反应的化学品（例如含铬染料）而言，须提供 PPE 等技术控制装备（例如，手套、护目镜、围裙、口罩等）。必须用警告符号正确标示含有危险化学品（例如，酸或苛性钠）的罐和容器（例如，“佩戴护目镜、手套”等）。此外，含有化学品的罐和容器应始终保持关闭状态。使用密封容器和自动运输化学品（液体和盐类）是有利的。

应根据化学品的危险程度将其隔开，尽可能防止发生化学反应。

所有需要使用化学品的工作人员都应接受化学品管理体系和相关主题（例如法律法规、化学品使用、储存、环境和安全处理）的培训。

如果在生产过程中使用挥发性有机化合物（VOC，定义见附录 12.1），则必须采取措施限制工人在工作场所接触挥发性有机化合物。具体做法是使用个人防护设备（如口罩）或集体防护设备（如通风设备），或将个人防护设备和集体防护设备结合使用。必须遵守工作场所的 MAC（最大允许浓度）（参见 9.4. 健康与安全）。必须遵守所用 VOC 的安全数据单（SDS）中提到的工作场所接触限值和法律要求，如 REACH 限制和许可证。可通过减少仓库和工作场所的挥发性有机化合物扩散排放来限制工作场所的挥发性有机化合物接触量。根据溶剂的质量平衡，扩散性或逃逸性 VOC 排放量以溶剂输入量的百分比（%）表示。低于 5% 的扩散或逸散性 VOC 排放可视为良好做法。<sup>1</sup>

#### 工作场所的照明

如果存在照明不足的风险，应相应地照亮工作场所，并采取必要的措施。应持续规划和监测所有工作场所的正确照明。工作场所的勒克斯（lx）参考值见附件 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.

挥发性有机化合物(VOC)用于溶剂型涂层工艺，溶剂示例：N,N-二甲基甲酰胺(DMF)、N,N-二甲基乙酰胺(DMAC)或 N-甲基吡咯烷酮(NMP)。二硫化碳(CS<sub>2</sub>)是一种有机硫化合物，因其蒸汽压力值而被视为 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.

#### 热疾病/热应激

如果高温环境中存在任何与热应力相关的风险，应确定并引进相应形式的措施，包括适当的防护服、规定的工作时间（含明确的休息时间）、房间通风以及（在可能的情况下）在房间配备空调。

#### 个人防护装备(PPE)

公司应免费提供手套、护目镜、围裙、防尘口罩、耳塞、呼吸面罩等个人防护装备(PPE)，供员工处理危险材料（化学药品、溶剂等）并在有粉尘、噪音、挥发性有机化合物(VOC)和异味排放的危险工作场所内使用。应培训员工正确使用这些装备。工作条件以及 PPE 的使用和选择应符合（扩展的）SDS 中的规范。在废水处理厂区域工作的员工，在处理厌氧流程时应携带个人硫化氢检测器。

#### 爆炸风险

甲醇、异丙醇等易燃液体可能在空气中形成潜在的爆炸混合物。因此，应采取适当的措施防止爆炸（例如金属鼓和设备接地处理、防爆型电气装置）。有机粉尘（例如棉尘）易燃，存在可能爆炸的危险。在有机粉尘积聚处或粉尘云形成处应防止潜在的火源。

#### 工厂安全

##### 建筑物结构

工厂内的所有结构须适合按计划使用和操作，并保证安全。必须识别并记录任何已确定和/或报告的薄弱点、损坏等，并采取相应措施。

如果建筑物发生明显变化或要更改建筑物的指定用途，应请静力学专家确保建筑结构适合指定的用途。

需要许可的锅炉、发电机和变压器只能按照有效许可证的条件使用。每年须由外部测试机构或工程师至少检查一次压力锅炉和蒸汽容器等重要设施。



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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

任何事件和事故都须记录在案。文档记录须包括事件和事故的性质、范围、原因和采取的纠正措施。必须指定一名经过适当消防安全培训的工作人员，以处理任何相关问题。须制定并公布包含防火、警报、消防和消防部门部署等措施的防火计划。须针对所有可能类型的事件（例如，火灾、事故、化学品危害、自然灾害如洪水、地震等）制定应急计划。必须保证在发生任何事故时，随时能够使用急救设备。必须设有逃生路线和紧急出口，并作适当标记。工厂内的各个场所都应张贴紧急逃生路线图（EFEP）。每月须至少检查一次逃生路线和紧急出口，确保它们标识醒目并可自由进出。此外，应每年检查应急设备状况以确保其正常运行，始终易于取用。应至少每三年开展一次紧急和疏散培训课程。所有开关柜应随时关闭。所有平台、电梯井、楼梯均应加固，以防止工人坠落。

灾难应急计划须识别事故可能对环境造成影响的区域。应记录组织安全措施，例如安全装置的检查与维护。

工人有权在无需获得特别许可的情况下立即离开对自身健康或安全构成威胁的场合。

### 爆炸性环境

爆炸性气体环境可能由易燃气体、薄雾或蒸汽或可燃粉尘造成（例如储存和使用（高度）易燃液体、电池充电器（氢气暴露）、维护期间使用易燃气体）。如果足量的此类物质与空气混合，那么出现火源就会引起爆炸。爆炸可能造成人员死亡和重伤以及重大破坏。避免释放形成爆炸性气体环境的危险物质和防止出现火源是两种广泛使用的降低风险的方法。使用正确的设备会大有帮助。

工厂应当划分可能产生爆炸性气体环境的区域。特定区域的划分及其规模和位置取决于产生爆炸性气体环境的可能性及产生后的持久性。划分区域计划应当用于选择电气元件。划分区域应远离火源。选定拟在划分区域使用的设备和保护系统应符合设备的要



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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，例如拟在潜在爆炸气体环境中使用的防爆电气设备和保护系统。

#### 风险评价

识别健康和安全管理领域的风险有助于维护工厂的整体安全，并可重点突显必须采取和加强安全措施的区域。存在潜在风险评价需求的情况可包括：

- 危险情况，如火灾和爆炸（易燃气体、粉尘等）
- 工作场所安全
- 员工压力（身体、心理）
- 健康风险（疾病、过敏）
- 环境因素造成的风险（地震、暴风等）

可能的风险评价方法见 4.5.10 章节

#### 记录/文档

工厂应按照（例如）ISO 45001 引进并维护用于健康与安全体系的“策划-实施-检查-改进”(PDCA)方法。应保持并更新组织中引进的所有活动和文件。

管理层须制定有关组织健康与安全政策的文件。健康和安全管理政策必须传达给在组织管理下工作的所有人员，并提供给相关方。

工厂应建立并记录危险源辨识、风险评价以及确定必要控制措施的程序。这些程序应考虑到有关健康和安全管理的所有风险，例如工作环境、机器、噪声、粉尘、振动、化学品使用、与工作相关的压力（身体和心理）以及显示屏设备的使用。

管理层必须确定和记录负责健康和安全的全体员工图表，至少标明以下职位：部门经理、健康和安全管理经理、紧急情况消防设备和急救负责人、职业健康和安全管理医师以及职业健康和安全管理工人代表。生产和维护操作期间必须有足够的急救和消防人员在场。





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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.

工厂：

- 须每年对负责健康和安全的人员进行至少一次内部审核
- 应记录职业健康和安全教育培训活动
- 应制定书面程序，用于向承包商和访客传达健康和安全管理政策
- 应制定管理健康和安全管理文件以及记录的流程
- 须记录健康和安全管理事故，并采取适当的纠正和预防措施

#### 内部审核（健康和安全管理）

应经常定期审核健康和安全管理。工厂必须设有程序，尤其是用于确定其健康和安全管理适用性的审核计划/程序。制定程序的主要目的在于评估健康和安全管理事项及其有效的引入和实施。健康和安全管理系统的内部审核应每年执行一次，并应根据包含3年内审核要点的审核计划/程序来执行。

应发布相应的审核报告，包含内部审核员姓名、审核结果以及纠正与预防措施计划。尽可能附上照片作为证据。此外，还应确定由谁负责确保采取纠正措施，以及完成纠正措施的日期。

#### 合规性

为保护使用化学品、参与噪音和粉尘排放的有关工人，工厂必须遵守国家法律要求。这还包括符合标准 ISO 8995 (“工作场所的照明”) 和 ISO 7243 (“热环境人类工效学”) 以及振动标准。目标应当是将暴露降到限量值以下。

工厂应建立识别和评估适用法律及其他健康和安全管理要求的程序，并定期评估其是否符合这些要求。此外，应实现有关遵守适用法规要求和降低健康和安全管理领域风险的目标。



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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.

#### 认可的第三方认证

附录 8 中列出了对健康和安全性具有重要意义的受认可的第三方证书。

如果工厂通过了第三方认证体系的认证，则应向 OEKO-TEX® 认证机构提供包括证书和有效期限在内的认证过程文件和记录。

#### 检测和认证流程

##### 通用条件

本标准和使用条款(ToU)规定了完成认证协议的条款和条件、这些程序的执行(包括质量保证和审核程序)以及 OEKO-TEX® STeP 证书的颁发。

##### 认证过程

OEKO-TEX® STeP 认证过程包括基于网络的信息收集和工厂现场审核。

信息通过基于网络的评估工具进行记录。公司需填写详尽的在线调查问卷，并通过相关文件提供其陈述的证据。OEKO-TEX® 机构将分析并评估企业通过评估工具提供的信息和数据。在对生产工厂进行审核时，负责的 OEKO-TEX® 机构将验证所提供的信息并确认所提交的文件。成功完成该过程后，经过确认的企业将收到 STeP 证书和 OEKO-TEX® 审核报告。

##### 申请

仅可通过 OEKO-TEX® 网站上的在线表单申请 OEKO-TEX® STeP 认证。申请人联系的 OEKO-TEX® 机构会在认证过程中提供指导和支持，并提供基于网络的评估工具的登录数据。将 STeP 认证申请表与签署好的 ToU 一起提交后，申请人有义务承担认证机构在审核过程中产生的费用。即使在审核过程中工厂由于不符合排除标准而无法在当时获得认证，也将适用这一规定。



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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,

## 数据收集和评估

内部评估和认证的基础是客户在其申请和在线评估工具中提供的信息。

该工具的使用方式有两种：

- **STeP 认证：**在应用中使用评估，并将其作为 OEKO-TEX® STeP 过程中所有检测和认证的基础。该评估报告并记录工厂绩效和数据，并包含客户在 OEKO-TEX® STeP 认证过程中提供的最重要的信息。它是后续审核、验证和认证的基础。
- **内部评估：**有些工厂可以使用评估工具用于内部评估，由 OEKO-TEX® STeP 专家审查其答案，而不进行后续审核和验证。从而获得 OEKO-TEX® 评估结果和质量报告。该报告可以使工厂了解其自身的可持续性绩效，便于内部使用。但是，仅完成评估无法获得认证。

## 认证

OEKO-TEX®对客户提供的信息和数据进行分析 and 评估。在对生产工厂进行审核时，负责检测的 OEKO-TEX®机构会验证所提供的说明并确认提交的文件。

可借助评分系统，以标准化方式对所有生产阶段的六个单独模块的评估提供支持（参见 5.4）。

如果未达到 OEKO-TEX® STeP 标准的最低百分比得分和/或不满足指定的排除标准，则无法获得认证（参见附录 10）。

如果 OEKO-TEX®检测机构确定由于未能满足一项或多项排除标准而无法通过认证，将立即通知客户这一事实。

OEKO-TEX® STeP 认证过程会记录在正式报告中，如果已达到最低百分比得分，则向客户颁发证书，完成该过程。

## 评估工具

基于网络的评估工具可用于确定工厂是否基本上符合认证标准，或者需要提前采取哪些措施并进行改进。此外，该工具还可以高效地对数据进行评估。评估从询问一些有关公司和工艺的一般问题开始。



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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.

然后，会要求申请人回答所有六个模块中的基本问题和高级问题以完成评估。

### 5.3.1 Basic questions

These assessment questions are mandatory and must be answered by the customer as a condition for the certification process.

### 基本问题

这些评估问题是强制性的，是认证过程的一个条件，客户必须回答。

### 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).

### 排除标准

排除标准是基本问题的一部分。它们是确定是否适合参与 OEKO-TEX® STeP 认证计划的最重要的标准。工厂要想通过 OEKO-TEX® STeP 认证，则必须满足所有排除标准（参见附录 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”.

### 高级问题

OEKO-TEX®让追求“最佳实践”的客户有机会记录并随后验证更多有关其工厂的详细程序。在这种情况下，客户可自愿回答标记为“深度”的所有问题。

## 5.4 Scoring system

## 评分系统

### 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%.

### 一般评估规则

通过加权方法进行评估，其中六个模块中每个模块的权重相同。因此，每个模块占总百分比 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.

每个模块都包含特定的绩效标准，这些标准通过基本问题（包括排除标准）和高级问题的形式进行评估。这些标准在下述内容中示出。

### 5.4.2 Rating of performance

### 绩效评级

**Not passed** Any exclusion criterion is not fulfilled or less than 70% of the points from basic questions are achieved

不合格

不满足排除标准或者低于基础问题得平的 70%

**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级：入门级

基本问题中有 70% 达标（包括每个模块的排除标准）。如果基本问题的达标率超过 70%，则级别更高。

**Level 2: Good implementation** 34% of the advanced questions (including any remaining basic points) are attained

2级：良好实施

高级问题（包括任何其余的基本要点）中有 34% 达标

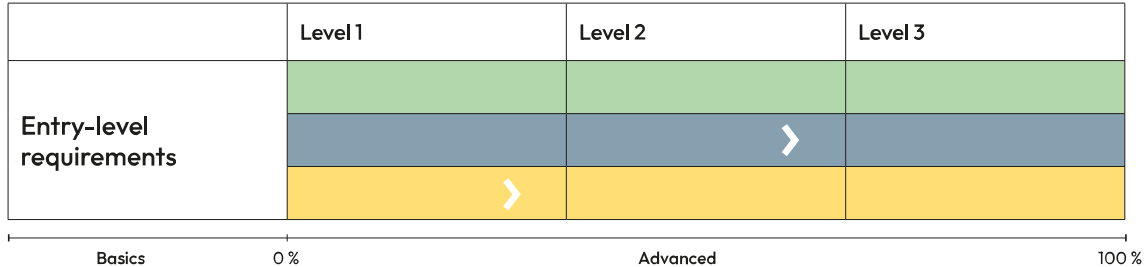




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**Level 3: Exemplary implementation** 67% of the advanced questions (including any remaining basic points) are attained

**3 级: 示范性实施** 高级问题 (包括任何其他的基本要点) 中有 67% 达标



## 5.5 Audits

## 审核

### 5.5.1 Certification audit

### 认证审核

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.

需强制性进行现场检查 (审核), 以完成最终评估并验证客户提供的信息是否真实详尽。审核范围取决于工厂的规模和生产以及所编制文件的质量。审核由受过专门训练的审核人员在工厂内进行。

### 5.5.2 Tests

### 检测

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.

如果某些技术细节无法通过文件进行证明, 则审核团队有权要求或独立执行检测。这尤其适用于必须由国家授权或认可的实验室 (根据 ISO 17025) 根据国家和国际标准的要求予以报告证明或者由 OEKO-TEX® 成员进行检测的特定限值 (例如, 废水或空气排放物)。此外, 审核团队有权采取或安排随机样品。

### 5.5.3 Re-Audit

### 重新审核

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.

如果在颁发证书之前还需要履行某些特定的义务, 可能会要求重新进行审核和评估。若出现此情况, 负责审核的机构会将其通知给客户。

### 5.5.4 Compliance audit

### 合规性审核

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.

负责审核的机构每 18 个月进行一次合规性审核。为接受该审核, 客户必须更新所有现有的评估数据 (在线评估工具上) 并移除任何无效文件或在必要时添加新文件。所有 STeP 认证工厂都必须接受合规性审核, 并且应在初始认证后 22 个月内完成审核。



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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).

合规性审核不会要求 OEKO-TEX® 机构做太多的审核工作，因为大部分信息和文件都已提供，并且大部分要求都已经过检查。

### 突击审核

OEKO-TEX® 及其审核员有权在任何时候对通过 OEKO-TEX® STeP 认证的工厂进行突击审核。在突击审核期间，工厂必须允许审核员按照签署的 ToU 进入，并且必须允许 STeP 审核随时进行。突击审核的费用由工厂支付。

文件须包含多达六名管理代表的姓名，以便有人可作为副代表。公司需确保这些管理者代表中随时都有至少有一人能够主持 STeP 审核。申请工厂的管理层负责更新该联系人名单。任何未能允许进入工厂的行为都将导致证书撤销。

### 审核人员的权利

使用条款中有关于审核人员权利情况的基本信息，内部 STeP 审核人员行为准则中也有所涉及。

### 审核报告

受委托进行审核的 OEKO-TEX® 机构在完成认证审核之后，会编制详细的审核报告并将其交付给客户。另外，该报告中含有六个 STeP 模块的汇总信息、义务和建议（审查机构明确表示会报告的内容）以及照片日志等。

### 颁发证书

如果满足本标准的条件，客户将收到具有两页内容的证书。受委托进行审核的机构提供由 OEKO-TEX® 颁发的该证书。

### 证书有效性和续期

OEKO-TEX® STeP 证书的有效期为自颁发之日起三年（36 个月）。如果客户决定延长证书有效期，则必须在有效期届满之前办理延长手续。续期证书的有效性与前一证书的有效期正好相隔 3 年，且不可调整。延迟续费不会导致证书有效期的延长（另见 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、续期和可能撤销证书的条件均以使用条款 (ToU) 为依据。

## 基准

OEKO-TEX® 可为其客户提供在 OEKO-TEX® STeP 框架内的行业基准。这些基准提供于各模块中。例如，可能存在地区和全球基准。客户可以使用这些基准，将他们的绩效与 OEKO-TEX® STeP 发布的基准进行比较。

此外，纺织作坊、染色车间、裁剪和缝纫工厂等工厂若获得认证，均会对其绩效进行记录，并被用作比较部门内绩效的基准。

因此，创建在 OEKO-TEX® STeP 框架内的基准的方法有两种：

- 根据作为标准发布的准则（关键数据）创建
- 根据类似类别的同类服务创建

## 第三方认证体系的认可

OEKO-TEX® STeP 系统包括某些认证提供商，其标准和认证能力均经过认证并满足 OEKO-TEX® STeP 标准。这使得可以利用行业内的协同作用，并且有助于避免双重支出和投资。由 OEKO-TEX® STeP 标准认可和赞同的第三方认证和体系已经过我们专家团队的审查，并且至少与 OEKO-TEX® STeP 标准相当。

在所有情况下，OEKO-TEX® 审核人员都以随机样品的形式进行控制。如有任何不确定因素存在，均可能导致无法满足 OEKO-TEX® STeP 关于确保明晰性和确定性的要求。

第三方认证并不授予客户拒绝回答 OEKO-TEX® STeP 评估工具所询问的某些问题的权利。为实现全面评估，客户必须回答所有问题。不过，STeP 评估工具允许自动预选受影响的问题，具体取决于相应的第三方认证体系。这将有利于客户的工作。回答问题还有助于使答案标准化，以实现工厂的交叉比较（OEKO-TEX® STeP 第三方），并使得审核人员能够通过检测来确认任何现有的认证。



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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 在许多不同领域都承认第三方认证。附录 8 中列出了受认可的认证提供商。

## 其他适用标准

首选测试标准包括：

- 国际标准（例如 ISO、IEC 等）
- 国家标准
- 受认可的行业协会所发布的标准
- 地区标准

在各种情况下，都应检查现行法律状况。大多数国家都出台了分析标准及其他适用的测试和管理标准。此外，也有由纺织品、服装和皮革行业使用的广受认可的参考资料。这些参考资料通常由行业贸易组织（例如 ISO、IEC、CEN、CENELEC）发行，有时也由政府机构（例如美国的 CPSC）发行。特别是由于标准处于不断发展变化之中，因此无法列出所有适用的标准。但是，适当地引用并记录任一 OEKO-TEX® STeP 范畴内的类别非常重要，这样有利于审核人员以绝对的把握度来识别标准出处并评估其有效性和实施情况。

## 信息参考

OEKO-TEX® STeP 标准中规定的许多目标可通过不同方式实现。为了使用户能够更好地理解这些可能性并帮助用户实现目标，附录 9 中列出了一个信息参考资料列表。

# 客户与 OEKO-TEX® 之间的法律关系

客户向其选定 OEKO-TEX® 机构（参见附录 1）提交的根据 OEKO-TEX® STeP 标准对其工厂进行认证的申请请求是客户与 OEKO-TEX® 之间法律关系的基础。

OEKO-TEX® 使用条款 (ToU) 适用于所有 OEKO-TEX® 产品（参见附录 II）。可以在 [www.oeko-tex.com/ToU](http://www.oeko-tex.com/ToU) 查看 ToU。





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## 1 Annex

## 附录

### 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®机构

OEKO-TEX® 国际环保纺织及皮革协会由独立的欧洲和日本检测机构组成，办事处遍布全球。

检测和研究机构提供的 MADE IN GREEN、STANDARD 100、ORGANIC COTTON、LEATHER STANDARD、STeP、ECO PASSPORT 和 / 或 RESPONSIBLE BUSINESS 认证和检测报告可在 OEKO-TEX® 主页 [www.oeko-tex.com/en/about-us/offices](http://www.oeko-tex.com/en/about-us/offices) 查询。

可通过以下方式联系 OEKO-TEX® 秘书处：



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## 2 Annex

## 附录

### Labelling

### 标签

When a OEKO-TEX® STeP certificate is issued, the certificate holder receives a licence to use the corresponding OEKO-TEX® label.

颁发 OEKO-TEX® STeP 证书后，证书持有者将获得使用相应 OEKO-TEX® 标签的许可。

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® 标签使用指南涵盖了管理 OEKO-TEX® 商标和 OEKO-TEX® 标签的使用规则及指南，并对 OEKO-TEX® 标签的标准化外观使用规定作出了定义。它可帮助企业、制造商、品牌商、零售商及所有 OEKO-TEX® 合作伙伴正确使用标签来标记其认证产品还可用作开发市场的材料以传达企业在此做出的努力。

#### [Labelling Guide](#)

#### [标签使用指南](#)

All layout version of the OEKO-TEX® labels can be downloaded via the Label Editor in the myOEKO-TEX® platform.

OEKO-TEX® 标签的所有布局版本都可通过 myOEKO-TEX® 平台的标签编辑器下载。



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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

### 附录

#### STeP OEKO-TEX® 化学品清单

#### 制造过程受限物质清单

OEKO-TEX® STeP 认证框架禁止故意使用下列化学品。OEKO-TEX® STeP 化学品清单符合最新且正式版本的高度关注物质授权候选清单中列出的高度关注物质 (SVHC) (根据 REACH 法规第 59(10) 条发布)。此外,所添加的纺织化学品中可能会无意掺杂有低浓度的下述化学品或无意中造成下述化学品的污染,应根据技术和信息的可能性予以考虑/评估。如果生产所用化学品和助剂中含有一种或多种禁用物质,即便是无意引入的低浓度物质或污染物,也应确保服装/纺织品/皮革产品或辅料(例如纽扣、金属配件等)符合现行的 OEKO-TEX® STANDARD 100 或 LEATHER STANDARD 要求。

#### 验证和检验该要求的合规性

申请人可通过提供供应商声明、第三方授予的符合相关要求的证书、安全数据表等来提供证据。决定使用和承认哪些证明、文件等由认证机构专门审议并确定。该机构还可以要求对化学品或成品纺织品/皮革/材料进行检测。这一决定不容置疑。

#### 废水和污泥检测

采用湿法工艺的企业(包括工业洗衣店)需要提供详细的废水和污泥(如适用)分析。应考虑 STeP 化学品清单(见下文)中定义的物质和相应的限量值及报告限量值。

- 必须对规定限量值或指明“需检测”的物质进行检测
- 应当对仅规定报告限值的物质进行检测
- 既未规定限量值也未规定报告限值的物质,无需进行检测



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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.
- 生产粘胶(CV)和莫代尔(CMD)纤维的工厂无需测试附录 3 中列出的所有参数, 即仅测试烷基酚聚氧乙烯醚(APEO)、铬、镉、铜、镍、六价铬、铅、汞和锌总量即可。附录 6.1 中列出了所有相关的常规参数。





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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]
<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



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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]
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



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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]
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





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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]
2,6-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 sulphochromate 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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Substance	CAS No.	MRSL	Wastewater		Sludge	
			Limit Values [µg/l]	Reporting Limit [µg/l]	Limit Values [mg/kg]	Reporting Limit [mg/kg]
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



STeP

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 (distearyl)dimethylammoniumchlorid)	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-Diaminoanisole 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.

将物质分配在上述化学品组中并不意味着该物质专门用于此目的。用于其他目的同样未得到授权。

在没有替代产品并已经尽一切努力将工人的接触、向环境中的释放以及在生产 and 处理物品中的残留降至最低的前提下，则可以使用本 MRSL 中列出的因当前技术限制而无法从工艺中消除的化学品。如果提供有效的 ECO PASSPORT 证书，或者该化学品被列为可接受的活性化学产品 (ACP) (参见 OEKO-TEX® 网站)，则允许使用因技术限制而使用的受限化学品或具有特定技术特性的化学品。在这种情况下，必须对废水和污泥 (如适用) 进行检测，并满足法律要求。

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

## 附录

### Prohibited and hazardous production processes

### 禁止和危险的生产工序

#### 4.1 Prohibited processes

#### 禁止的生产工序

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:

一些生产和整理纺织品的工艺存在较高的环境或工人安全风险。不得使用以下工艺：

- 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.

- 对牛仔裤或其他纺织品进行喷砂处理。在封闭系统中操作的程序除外，前提是工作场所中可吸入结晶二氧化硅的浓度不超过最低限值 0.025 mg/m<sup>3</sup> (时间加权平均值)。

- 在印花系统中使用重油。
- 除深色系羊毛以外，使用重铬酸盐作为氧化剂来改善色牢度。
- 在开放系统中使用氯代有机溶剂或氟氯代有机溶剂/液体。
- 使用基于有害芳烃的增稠剂体系进行印花。
- 在泡棉生产中使用氯氟烃(CFC)或二氯甲烷作为发泡剂。

#### 4.2 Non-recommended hazardous processes

#### 不推荐的有害工艺

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:

纺织生产工厂在预处理、染色、整理和其他工艺中可能会使用具有负面影响的危险化学品。因此，建议避免使用某些产品工艺或者减少此类产品工艺的使用：

- 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

- 在预处理和染色工艺中，应当用可生物降解/可消除的表面活性剂和络合物形成剂来替代潜在有害的表面活性剂。应避免使用不可生物降解和不可消除的表面活性剂和络合物形成剂。
- 应通过避免物料循环、回收利用或选择可生物降解/可消除的产品来避免或减少在废水中使用高效消泡剂（例如，PBT，即持久性、生物累积性和毒性）。
- 应尽量避免或最大程度减少使用次氯酸钠作为漂白剂。
- 应避免在棉布的防皱整理中使用含高比例甲醛的交联剂，例如二羟甲基脲或二羟甲基乙脲。



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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.
- 如果无法避免使用 PFC（例如在防油工作服的生产中），则应收集处理和后续冲洗浴的残留液体。这些残留物应由具备执照的公司进行专业处置。
- 应（例如）通过实施闭环或后处理系统，尽量避免或最大程度减少接触二硫化碳、硫化氢和硫酸锌。
- 应尽量避免或最大程度减少使用高锰酸钾，尤其是用作水处理、表面处理的化学品以及用作实验室化学品。
- 应优先使用天然上浆剂、纤维素衍生物或可生物降解剂。如果技术上可行，应尽可能以高比例回收合成上浆剂。





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## 5 Annex

## 附录

### Limit values for wastewater effluents and air emissions

### 废水排放和空气排放物的限值

#### 5.1 Limit values for effluents - Direct discharge 污水处理后直接排放的限值

Parameter / 参数		Minimum / 最低	Advanced / 高级	Excellent / 优良
pH-value / 酸碱值 / pH 值		6.0 - 9.0	6.5 - 8.5	7.0 - 8.0
Max. effluent temperature / 最高出水温度 <sup>1</sup>	°C	Δ15 / max. 35	Δ10 or 30	Δ5 or 25
Colour / spectral absorption coefficient at .... / ... 的彩色/光谱吸收系数。	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> ) / 化学需氧量	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) / 可吸附有机卤素含量	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 / 总氮	mg/l	20	10	5
Phosphor total as P / 总磷 P	mg/l	3	0.5	0.1
Total suspended solids / 总悬浮固体量	mg/l	50	25	10
Oil and Grease / 油脂	mg/l	10	2	0.5
Phenol-Index / 苯酚指数 <sup>2</sup>	mg/l	0.5	0.01	0.001
E.coli / 大肠杆菌	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 / 亚硫酸盐	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. / 不得超过最高温度, 或者 (如果工厂周围环境温度很高) 不得超过流出温度与接收水体之间的指定温差。在这种情况下, 应在排放点上游测量接收水体的温度。

<sup>2</sup> Limits do not apply to leather producers with wet processes. / 限值不适用于湿处理过程的皮革生产商。

Sampling and testing of wastewater effluents towards required parameters shall be done at least annually by an independent authorised laboratory / testing body.

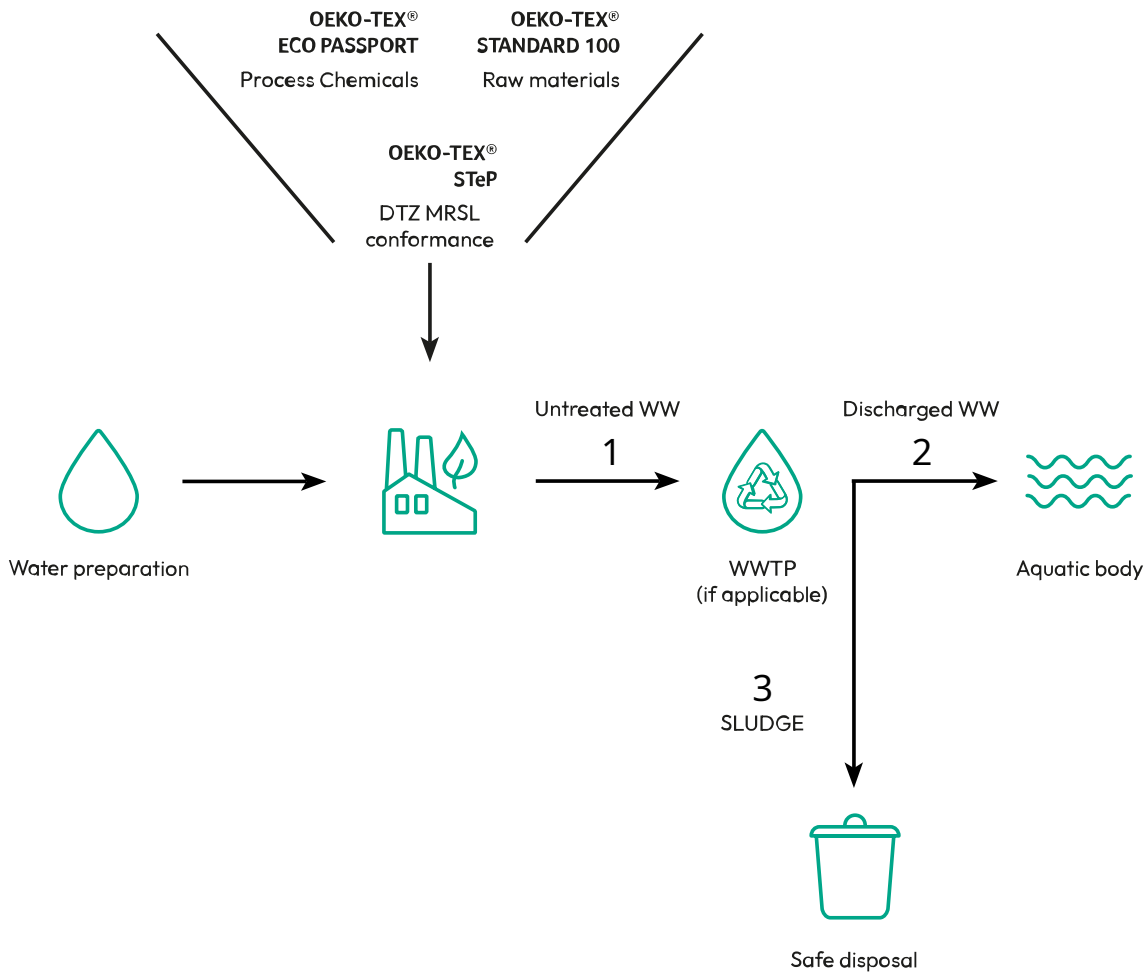
应至少每年由独立的授权实验室/检测机构就必需参数对废水出水进行取样和检测。



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### 5.1.1 Wastewater Sampling Points - Direct Discharge

废水采样点：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)

- 未处理废水：生产后未经处理的废水
- 排放废水：工厂排放的废水离开工厂地界（进入水体）
- 污泥：废水处理过程中分离出的固态或半固态物质
- WWTP：废水处理厂（同 ETP：污水处理厂）

The raw wastewater sampling is important for measuring the MRSL parameters due to direct analysis of the potential harmful pollution of aquatic body.

原废水采样可以直接分析水体潜在的有害污染，对于测量 MRSL 参数具有重要意义。

The samples shall be tested separately (as indicated in the table below) and NOT BLENDED together.

样本必须单独测试，不能混合测试，如下表所示。



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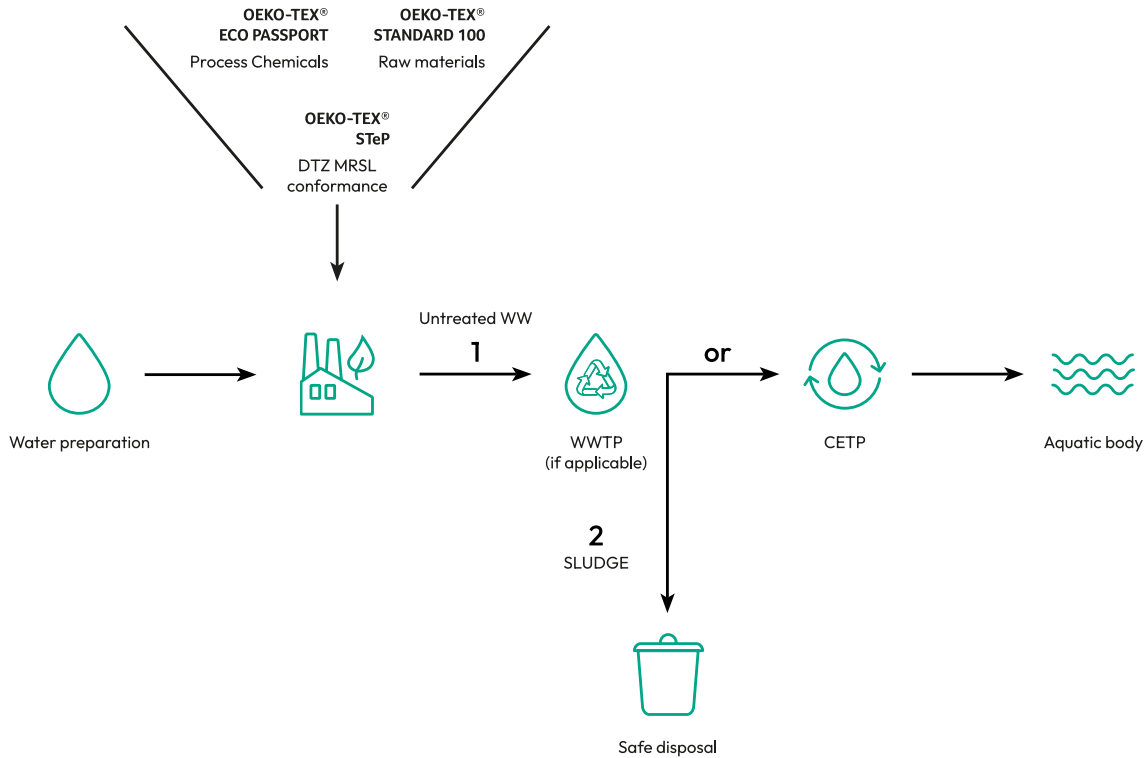
Discharge Types / 排放类型	Sampling Points / 采样点	Requirements / 要求	Where to find requirements / 从何处查找要求
Direct Discharge / 直接排放	1. Untreated Wastewater / 1.未处理废水	MRSL parameters / MRSL 参数	Annex 3 / 附录 3
	2. Discharged treated wastewater / 2.处理后的废水排放	Conventional parameters / 常规参数	ANNEX 5: table 5.1 / 附录 5 : 表 5.1
	3. Sludge / 3.污泥	MRSL Parameter (sludge relevant) / MRSL 参数 (污泥相关)	ANNEX 3 / 附录 3



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### 5.1.2 Wastewater Sampling Points - Indirect Discharge

### 废水采样点——间接排放



- 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

- 未处理废水：生产后未经处理的废水
- 污泥：废水处理过程中分离出的固态或半固态物质
- WWTP：废水处理厂，部分或全部废水处理厂
- CETP：中央污水处理厂或公共污水处理厂

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.

未经处理的废水采样可以直接分析潜在的有害污染，对于测量 MRSL 参数具有重要意义。如果工厂拥有内部 WWTP，则必须对未处理废水进行 MRSL 参数测试。

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.

如果工厂没有 WWTP，或者废水只有部分经过处理并进入 CETP，那么未处理废水将被视为间接废水排放。



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Discharge Types / 排放类型	Sampling Points / 采样点	Requirements / 要求	Where to find requirements / 从何处查找要求
Indirect Discharge with own WWTP / 间接排放 (有内部 WWTP)	1. Untreated Wastewater / 1.未处理废水	MRSL parameters / MRSL 参数 <sup>1</sup>	ANNEX 3 / 附录 3
	2. Sludge / 2.污泥	MRSL Parameter (sludge relevant) / MRSL 参数 (污泥相关)	ANNEX 3 / 附录 3
Indirect Discharge without own WWTP / 间接排放 (没有内部 WWTP)	1. Untreated Wastewater / 1.未处理废水 <sup>1</sup>	MRSL parameters / MRSL 参数 <sup>1</sup>	ANNEX 3 / 附录 3

<sup>1</sup> Excluding heavy metals Antimony (Sb), Chromium (Cr), Cobalt (Co), Nickel (Ni), Zinc (Zn), Manganese (Mn) and Silver (Ag) / 不含重金属: 锑(Sb)、铬(Cr)、钴(Co)、镍(Ni)、锌(Zn)、锰(Mn)、银(Ag)

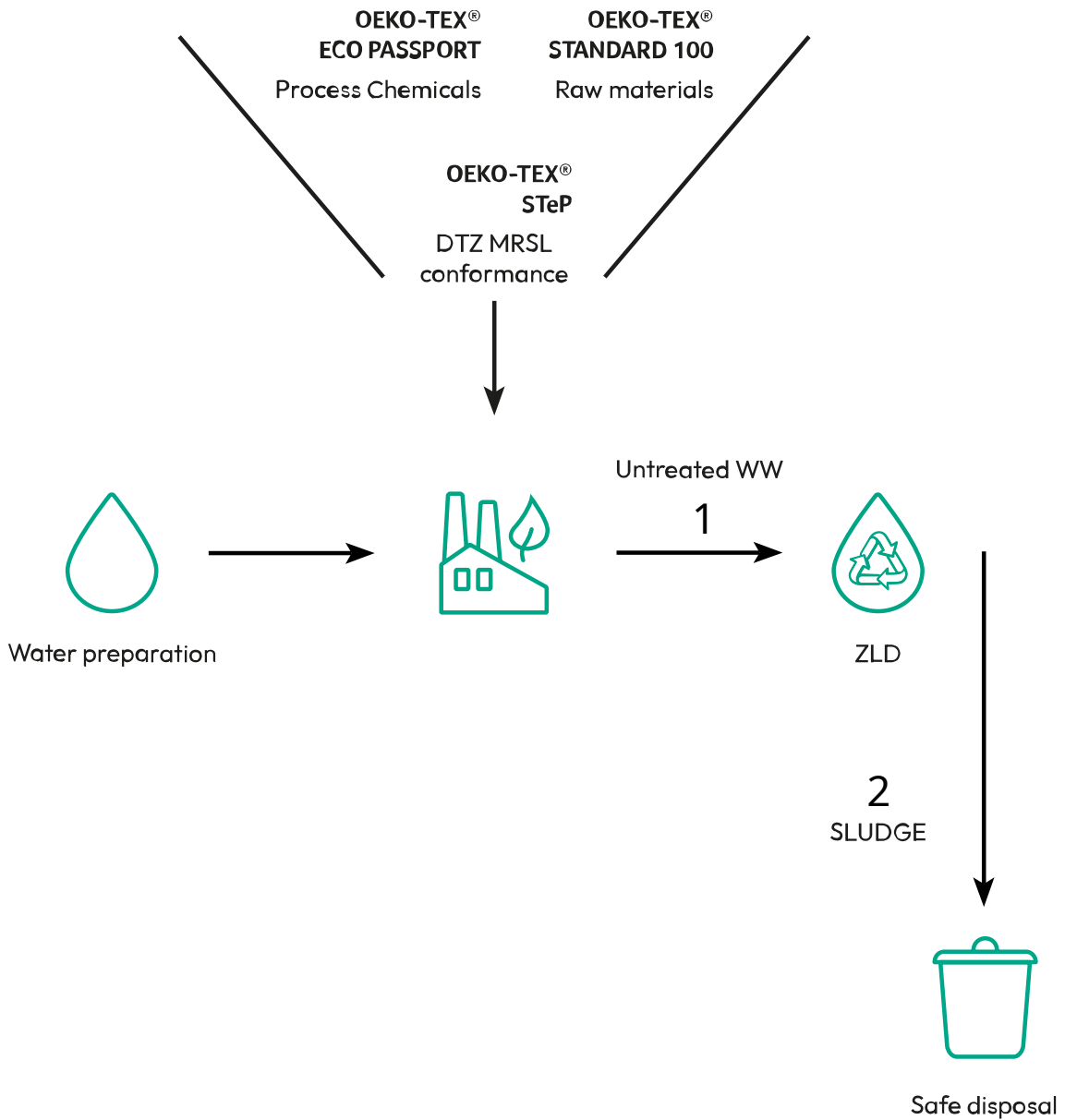




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### 5.1.3 Wastewater Sampling Points - Zero Liquid Discharge

### 废水采样点——零液体排放



Discharge Types / 排放类型	Sampling Points / 采样点	Requirements / 要求	Where to find requirements / 从何处查找要求
ZLD Treatment Plan / ZLD 处理方案	1. Untreated Wastewater / 1.未处理废水	MRSL parameters / MRSL 参数 <sup>1</sup>	ANNEX 3 / 附录 3
	2. Sludge / 2.污泥	MRSL parameters (sludge relevant) / MRSL 参数 (污泥相关)	ANNEX 3 / 附录 3

<sup>1</sup> Excluding heavy metals / 不含重金属



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## 5.2 CO (Carbon Monoxide)

## CO ( 一氧化碳 )

Parameter / 参数 <sup>1</sup>		Minimum / 最低	Advanced / 高级	Excellent / 优良
Carbon Monoxide (CO): For plants with a thermal value between 0.3 MW and 2 MW / 一氧化碳(CO): 适用于热值介于 0.3 MW 和 2 MW 之间的电厂				
Solid fuel / 固体燃料	mg/Nm <sup>3</sup>	1000	650	200
Liquid fuel / 液体燃料	mg/Nm <sup>3</sup>	700	300	150
Gaseous fuel / 气体燃料	mg/Nm <sup>3</sup>	500	250	100
Carbon Monoxide (CO): For plants with a thermal value > 2 MW / 一氧化碳 (CO): 热值超过 2 兆瓦的电厂				
Solid fuel / 固体燃料	mg/Nm <sup>3</sup>	800	450	150
Liquid fuel / 液体燃料	mg/Nm <sup>3</sup>	500	300	150
Gaseous fuel / 气体燃料	mg/Nm <sup>3</sup>	500	250	100
Carbon Monoxide (CO): For gas / diesel generators > 0.3 MW / 一氧化碳(CO): 适用于 0.3 MW 以上的燃气/柴油发电机				
Gaseous fuel / 气体燃料	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). / 限量值不适用于只在紧急情况下使用的发电机 (每年运行时间<500 小时)。

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.

上表给出的限量值和等级是指固体燃料的体积氧含量为 6%、液体和气体燃料的体积氧含量为 3%、柴油发电机 (液体和气体燃料) 和燃气轮机的体积氧含量为 15% 的情况。浓度形式的排放限量值以 mg/Nm<sup>3</sup> 为单位来表示, 并且与换算为以下条件下的排放浓度相关: 温度 273.15 K, 压力 101.3 kPa, 干基气体。在确定排放值时, 不能将提供给装置的一部分以稀释或冷却废气的空气量考虑在内。



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

### SO<sub>2</sub> ( 二氧化硫 )

Parameter / 参数 <sup>1</sup>		Minimum / 最低	Advanced / 高级	Excellent / 优良
SO <sub>2</sub> : For plants with a thermal value between 0.3 MW and 2 MW / SO <sub>2</sub> : 适用于热值介于 0.3 MW 和 2 MW 之间的电厂				
Solid fuel / 固体燃料	mg/Nm <sup>3</sup>	750	500	300
Liquid fuel / 液体燃料	mg/Nm <sup>3</sup>	650	400	200
Gaseous fuel / 气体燃料	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> : 热值在 2-50 兆瓦之间的电厂				
Solid fuel / 固体燃料	mg/Nm <sup>3</sup>	750	500	300
Liquid fuel / 液体燃料	mg/Nm <sup>3</sup>	650	400	200
Gaseous fuel / 气体燃料	mg/Nm <sup>3</sup>	100	70	30
SO <sub>2</sub> : For plants with a thermal value > 50 MW / SO <sub>2</sub> : 热值超过 50 兆瓦的电厂				
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> : 适用于 0.3 MW 以上的燃气/柴油发电机				
Gaseous fuel / 气体燃料	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). / 请注意: 限值不适用于紧急情况下 (工作时间小于 500 小时/年) 使用的发电机、火力发电厂和锅炉。

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.

上表给出的限量值和等级是指固体燃料的体积氧含量为 6%、液体和气体燃料的体积氧含量为 3%、柴油发电机 (液体和气体燃料) 和燃气轮机的体积氧含量为 15% 的情况。浓度形式的排放限量值以 mg/Nm<sup>3</sup> 为单位来表示, 并且与换算为以下条件下的排放浓度相关: 温度 273.15 K, 压力 101.3 kPa, 干基气体。在确定排放值时, 不能将提供给装置的一部分以稀释或冷却废气的空气量考虑在内。



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## 5.4 NOx

## NOx (氮氧化物)

Parameter / 参数 <sup>1</sup>		Minimum / 最低	Advanced / 高级	Excellent / 优良
NOx: For plants with a thermal value between 0.3 MW and 2 MW / NOx : 适用于热值介于 0.3 MW 和 2 MW 之间的电厂				
Solid fuel / 固体燃料	mg/Nm <sup>3</sup>	650	300	150
Liquid fuel / 液体燃料	mg/Nm <sup>3</sup>	650	300	150
Gaseous fuel / 气体燃料	mg/Nm <sup>3</sup>	300	250	100
NOx: For plants with a thermal value >2 MW / NOx(氮氧化物): 热值超过 2 兆瓦的电厂				
Solid fuel / 固体燃料	mg/Nm <sup>3</sup>	650	300	150
Liquid fuel / 液体燃料	mg/Nm <sup>3</sup>	650	300	150
Gaseous fuel / 气体燃料	mg/Nm <sup>3</sup>	300	250	100
NOx: For gas / diesel generators > 0.3 MW / NOx : 适用于 0.3 MW 以上的燃气/柴油发电机				
Gaseous fuel / 气体燃料	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). / 请注意: 限值不适用于紧急情况下 (工作时间小于 500 小时/年) 使用的发电机、火力发电厂和锅炉。

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.

上表给出的限量值和等级是指固体燃料的体积氧含量为 6%、液体和气体燃料的体积氧含量为 3%、柴油发电机 (液体和气体燃料) 和燃气轮机的体积氧含量为 15% 的情况。浓度形式的排放限值以 mg/Nm<sup>3</sup> 为单位来表示, 并且与换算为以下条件下的排放浓度相关: 温度 273.15 K, 压力 101.3kPa, 干基气体。在确定排放值时, 不能将提供给装置的一部分以稀释或冷却废气的空气量考虑在内。



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## 5.5 Dust / Particulate Matter (PM) 粉尘/微粒物质

Parameter / 参数 <sup>1</sup>		Minimum / 最低	Advanced / 高级	Excellent / 优良
Dust: For all firings between 0.3 MW and 10 MW / 粉尘: 适用于介于 0.3 MW 和 10 MW 之间的所有烧制设备				
Solid fuel / 固体燃料	mg/Nm <sup>3</sup>	200	100	50
Liquid fuel / 液体燃料	mg/Nm <sup>3</sup>	200	100	50
Gaseous fuel / 气体燃料 <sup>2</sup>	mg/Nm <sup>3</sup>	50	20	5
Dust: For firings >10 MW / 粉尘: 适用于>10 MW 的烧制设备				
Solid fuel / 固体燃料	mg/Nm <sup>3</sup>	150	100	50
Liquid fuel / 液体燃料	mg/Nm <sup>3</sup>	150	100	50
Gaseous fuel / 气体燃料 <sup>2</sup>	mg/Nm <sup>3</sup>	50	20	5
Dust: For gas / diesel generators > 0.3 MW / 粉尘: 适用于 0.3 MW 以上的燃气/柴油发电机				
Gaseous fuel / 气体燃料 <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). / 限量值不适用于只在紧急情况下使用的发电机 (每年运行时间<500小时)。

<sup>2</sup> Limits do not apply to natural gas, but for other types of gas, such as biogas, refinery gas. / 限值不适用于天然气,但适用于其他类型的气体(例如沼气、炼厂气)。





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## 6 Requirements for facilities producing Viscose (CV) and Modal (CMD)

面向生产粘胶(CV)和莫代尔(CMD)的工厂的要求

Viscose (CV) and Modal (CMD)

粘胶(CV)和莫代尔(CMD)

### 6.1 Limit values effluents - Direct discharge

废水限量值 - 直接排放

Parameter / 参数			Minimum / 最低	Advanced / 高级	Excellent / 优良
pH-value / 酸碱值/ pH 值			6.0 - 9.0	6.5 - 8.5	7.0 - 8.0
Max. effluent temperature / 最高出水温度		°C	Δ15 / max. 35	Δ10 or 30	Δ5 or 25
Colour / spectral absorption coefficient at ... / ... 的彩色/光谱吸收系数。	436 nm	m-1	7	5	2
	525 nm	m-1	5	3	1
	620 nm	m-1	3	2	1
Chemical oxygen demand COD (as O <sub>2</sub> ) / 化学需氧量		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) / 可吸附有机卤素含量		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 / 总氮		mg/l	20	10	5
Phosphor total as P / 总磷 P		mg/l	3	0.5	0.1
Total suspended solids / 总悬浮固体量		mg/l	50	25	10
Oil and Grease / 油脂		mg/l	10	2	0.5
Phenol-Index / 苯酚指数 <sup>1</sup>		mg/l	0.5	0.01	0.001
Sulphides (as S <sub>2</sub> ) / 硫化物 ( S <sub>2</sub> )		mg/l	0.5	0.25	0.1
Hydrocarbons / 烃 ( 碳氢化合物 )		mg/l	5	3	1
Carbon disulfide (CS <sub>2</sub> ) / 二硫化碳(CS <sub>2</sub> )		mg/l	0.5	0.25	0.1

<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. / 不得超过最高温度, 或者 (如果工厂周围环境温度很高) 不得超过流出温度与接收水体之间的指定温差。在这种情况下, 应在排放点上游测量接收水体的温度。

### 6.2 Limit values for air emissions

废气排放限量值

Parameter / 参数			Minimum / 最低	Advanced / 高级	Excellent / 优良
Carbon disulfide (CS <sub>2</sub> ) / 二硫化碳(CS <sub>2</sub> )		mg/Nm <sup>3</sup>	150	75	15
Hydrogen sulphide (H <sub>2</sub> S) / 硫化氢(H <sub>2</sub> S)		mg/Nm <sup>3</sup>	50	25	5

### 6.3 BAT (Best available techniques)

BAT (最佳可用技巧)

BAT for Viscose and Modal producers can be the following:

粘胶和莫代尔生产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-
- 冷凝纺纱街道的废气, 以回收 CS<sub>2</sub> 并在生产过程中循环利用它
- 利用活性炭从废气中吸附回收 CS<sub>2</sub>
- 采用气提法去除废水中的 CS<sub>2</sub>。根据废气中 H<sub>2</sub>S 的浓度, 可采用不同的技术吸附回收 CS<sub>2</sub>
- 基于催化氧化就 H<sub>2</sub>SO<sub>4</sub> 生成应用废气脱硫工艺。根据质量流量和浓度, 有许多不同的过程可用来氧化含硫废气



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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  $\text{Na}_2\text{SO}_4$  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

#### 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.

- 从纺丝浴中回收硫酸盐。最佳可用技巧是从废水中去除硫酸盐  $\text{Na}_2\text{SO}_4$ 。（副产品具有经济价值并可出售）
- 先后采用碱沉淀和硫化物沉淀法还原废水中的锌
- 对敏感水体采用厌氧硫酸盐还原技术
- 使用流化床焚烧炉燃烧无害废物，回收热能以产生蒸汽或能源

#### 针对二硫化碳(CS<sub>2</sub>)的储存、运输和处理采取的健康和安全措施

应始终考虑采取措施防止工人接触二硫化碳(CS<sub>2</sub>)及其排放物。因此，工厂应提供全身抗静电防护服/套装、带有自吸过滤器的呼吸面具、安全护目镜、面罩、结合呼吸保护的护目镜、防护手套，以及仅供指定人员使用的通道，并对操作人员进行特殊培训，包括安全操作指导、应急计划和定期应急演练。

工厂应就二硫化碳(CS<sub>2</sub>)存储采取措施，考虑使用密封罐、防爆装置（例如照明和通风），防火区内外分开处理，与其他化学品（尤其是氧化剂、碱性和胺类物质）分开存储，选择阴凉处、无地下排水区、无废水池区域，储罐配备液位计、温度计和气体报警检测装置，配备防泄露的应急响应设备/材料及制定相关措施，储存区域附近放置适当的救火设备，储存区域张贴警告标志（安全与防火），设定安全距离，提供防雷设施和防静电设备。

对于二硫化碳(CS<sub>2</sub>)的运输，也应考虑接地设备，并且操作人员不得携带手机或其他金属物品以避免出现任何可能的引燃，并配备适当的消防设备和泄漏应对材料。

## 7 Annex

### Other Reference Values

## 附录

### 其他参考值



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## 7.1 Reference values for dust emissions at workplaces

## 车间粉尘排放参考值

parameter / 参数		Occupational Exposure Limits - 8 hours TWA (time weighted average) / 职业接触限值- 8 小时 (时间加权平均)	Dust concentration / 粉尘浓度
Inert dust / 惰性粉尘	mg/Nm <sup>3</sup>	3	10
Coal dust (free SiO <sub>2</sub> <10%) / 煤尘 (游离 SiO <sub>2</sub> <10%)	mg/Nm <sup>3</sup>	3	10
Dyestuff / 染料	mg/Nm <sup>3</sup>	3	3
Cotton dust / 棉尘	mg/Nm <sup>3</sup>	3	10
Polypropylene dust / 聚丙烯粉尘	mg/Nm <sup>3</sup>	3	10
Silk & other fibre dust / 丝绸及其他纤维粉尘	mg/Nm <sup>3</sup>	8	n.a.
Polyvinyl chloride (PVC) dust / 聚氯乙烯(PVC)粉尘	mg/Nm <sup>3</sup>	3	10
Suspended Particulate Matter (SPM) / 悬浮颗粒物(SPM)	mg/Nm <sup>3</sup>	10	10

## 7.2 Reference values for Lux (lx) at workplaces (German Workplace Directive ASR A3.4)

## 工作场所 Lux (LX) 参考值 (德国工作场所指令 ASR A3.4)

Spinning	纺丝	lx
Opening bales	打开棉包	200
Carding, combing, flyer, singeing etc.	粗梳, 精梳, 粗纱, 烧毛等	300
Spinning, winding, twisting, etc.	纺纱, 卷绕, 捻线等。	500
<b>Weaving / Knitting / embroidery etc.</b>	<b>机织/针织/刺绣等。</b>	<b>lx</b>
Sizing	上浆	200
Doubling etc.	并线等	300
Warping, weaving, knitting, stitching etc.	整经, 机织, 针织, 缝纫等。	500
controlling (fabrics, colour etc.)	控制 (面料, 颜色等)	1000
<b>Dyeing, printing, finishing etc.</b>	<b>染色, 印花, 后处理等</b>	<b>lx</b>
Singeing, washing, dyeing, finishing, ironing etc.	烧毛, 水洗, 染色, 后处理, 熨烫等	300
Printing, cleaning etc.	印花, 清洗等	750
controlling (fabrics, colour etc.)	控制 (面料, 颜色等)	1000
<b>Making up etc.</b>	<b>缝制等</b>	<b>lx</b>
Ironing, packing, etc.v	熨烫, 包装等	300
Cutting, sewing etc.	裁剪, 缝纫等。	500
Controlling	控制	1000



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<b>Leather production and processing</b>	<b>皮革生产和加工</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	兽皮的净面、分割、磨光、转鼓加工和刮软	300
Saddlery work, shoe production, stitching, sewing, polishing, pressing/embossing, trimming, cutting, leather dyeing (automatic)	马具制造、鞋类生产、缝合、缝纫、抛光、压制/压花、修边、切割、皮革染色 (自动)	500
Grading, sorting	评级、排序	500
Quality control	质量控制	1000
Shoemaking (handwork), glove manufacturing	制鞋 (手工)、手套制造	500
<b>Warehouse</b>	<b>仓库</b>	<b>lx</b>
Storage	储存	100
Dispatch	发货	300
<b>Office</b>	<b>办公室</b>	<b>lx</b>
Office space	办公区	500
Open plan office	开放式办公室	750
<b>Industrial laundry</b>	<b>工业洗衣房</b>	<b>lx</b>
Sorting	分类	300
Washing	水洗	300
Ironing	熨烫	300
Controlling	管控	1000



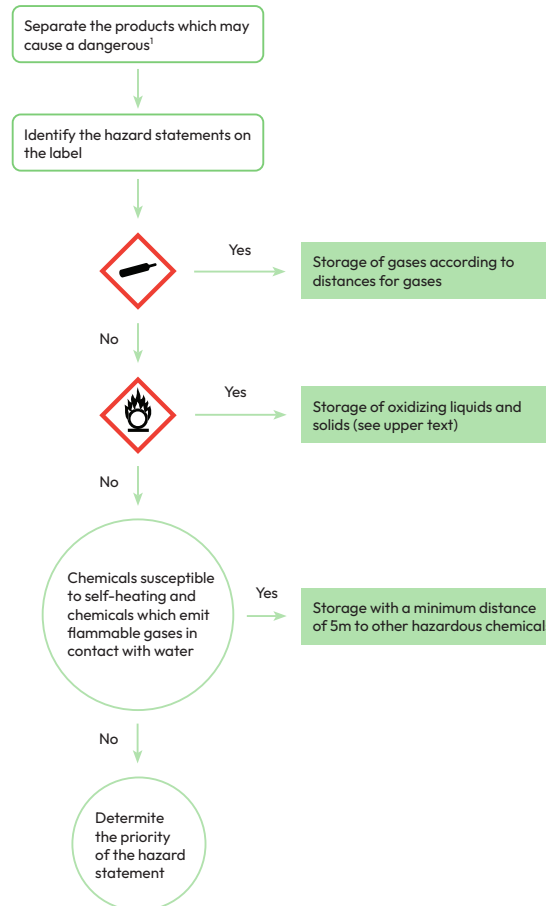
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### 7.3 Guideline for storage of chemicals

### 化学品存储守则

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：

- 各种酸和次氯酸盐（形成氯气）
- 过氧化物及强碱
- 强酸和强碱（加热易发生危险）





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**Determine the distances according to the priority of the hazard statement 根据危险级别确定存储间距**  
**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> 危险液体和固体存储距离<sup>1,2</sup>**

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). / 如果液体和固体没有标注区分，表格中仅注明一种距离。如液体和固体有区分，两者之间的存储间距表中有详细说明，具体数值分开显示（液体距离或固体距离）。

<sup>2</sup> For dangerous chemicals with more than one hazard statement, the most relevant distance needs to be considered. / 对于不止一种危险性的危险化学品，应考虑最相关的存储距离。



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## 8 Annex

## 附录

### Referenced Third-Party RSL's (Restricted Substance List) 参考的第三方 RSL (受限物质清单)

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

许多组织和品牌商已经将他们自己的受限物质清单 (RSL) 组合到一起, 这些清单基于他们自己对化学品的评估或者旨在确保符合纺织品最终销售市场的要求。其中许多清单大体上一致, 也可以用作识别潜在的关键化学品的信息来源。

OEKO-TEX® Service Ltd. 在法律要求出台前于 1992 年发布了第一份受限物质清单, 该清单涉及纺织品的化学成分, 用于保护消费者免受纺织品引起的负面健康影响。RSL 每年至少更新一次, 发布在 "OEKO-TEX® STANDARD 100" 文件中, 并且可在 OEKO-TEX® 网站上找到。

参考的第三方 RSL (受限物质清单)



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## 9 Annex

## 附录

### Accepted Third-Party certification systems

### 认可的第三方认证体系

#### 9.1 Chemical Management

OEKO-TEX® STeP recognises the certification OEKO-TEX® ECO PASSPORT for chemicals.

#### 化学品管理

OEKO - TEX® STeP 认可 OEKO-TEX® ECO PASSPORT 化学品认证。

#### 9.2 Environmental Performance

At this point no third-party environmental performance assessments are accepted by OEKO-TEX® STeP.

#### 环境绩效

目前，OEKO-TEX® STeP 不接受第三方环境绩效评估。

#### 9.3 Environmental Management

#### 环境管理

##### 9.3.1 ISO 14000 Series of Standards

##### ISO 14000 系列标准

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 标准（环境管理体系-使用指导要求），它是组织设计和实施有效的环境管理体系所使用的核心标准。ISO 14001 受到 OEKO-TEX® STeP 的认可，被视为满足环境管理体系标准。

Other standards included in this series are:

该系列的其他标准包括：

**ISO 14004** Environmental management systems – General guidelines on implementation

环境管理体系 – 实施总则

**ISO 14015** Environmental assessment of sites and organizations

现场和组织环境评估

**ISO 14020** Series (14020 to 14025) Environmental labels and declarations

系列（14020-14025）环境标签和声明

**ISO 14031** Environmental performance evaluation – Guidelines

环境绩效评估-指导原则

**ISO 14040** Principles and framework for life cycle assessment (LCA)

生命周期评估(LCA)的原则和框架

**ISO 14050** Environmental management – Vocabulary

环境管理 – 术语

**ISO 14062** Integrating environmental aspects into product design and development

将环境因素整合到产品设计和开发中

**ISO 14063** Environmental communication – Guidelines and examples

环境通信——指南和示例

**ISO 14064** Measuring, quantifying, and reducing Greenhouse Gas emissions

测量、量化并减少温室气体排放

**ISO 19011** Audit protocol for both, 14000 and 9000 series standards together

14000 和 9000 系列标准的审核方案

##### 9.3.2 EMAS

##### EMAS

The Eco-Management and Audit Scheme (EMAS) is a voluntary environmental management instru-

生态管理和审核计划(EMAS)是一种自愿性环境管理工具，由欧洲委员会于 1993 年制定。它使组织能够



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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.

评估、管理并持续提升其环境绩效。该计划在全球范围内适用，并向所有类型的私人和公共组织开放。若要在 EMAS 注册，组织必须满足欧盟 EMAS 法规的要求。

申请 ISO 14001 认证的组织必须通过一些步骤注册 EMAS。

## 社会责任

### amfori (BSCI)

Amfori 是开放和可持续贸易领域的一个全球商业协会。该协会包含各种规模和各种行业部门的组织。他们的使命是促进人类繁荣、负责任地利用自然资源并推动全球开放贸易，最终为实现联合国可持续发展目标(SDG)做贡献。

自 2003 年以来，amfori BSCI 使公司能够利用 11 项核心原则来提升其在供应链中的社会绩效，并以此来开展贸易。amfori BSCI 平台为所有与社会相关的供应链信息提供了空间。

### FWF -公平服装基金会

公平服装基金会 (FWF) 是一个多方利益相关方的倡议，旨在改善服装和纺织行业的工作条件。FWF 受工会、非政府组织和商业协会管理，且须确保其会员企业在各自的供应链实施 FWF 劳工实践守则。

### SA8000 -社会责任标准 (SAI)

SA8000 是可审核的认证标准，鼓励组织发展、维持和应用社会所接受的工作场所实践。SA8000 简化了导航行业和企业代码的复杂程序，创建了衡量社会责任的语言和标准。可应用于全球各个行业的任何公司，这使它成为测量、比较和验证工作场所社会责任的实用工具。

### SETEX (SMETA)

SMETA (Sedex 会员道德贸易审核) 是由 Sedex 组织 (供应商道德数据交换) 开发的一种审核程序，用于监控劳工权利、健康与安全标准、环境标准和商业道德的遵守情况。





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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 - 国际社会责任认证

WRAP 是独立、客观、非营利的全球社会责任专家团队，致力于通过认证和培训促进世界各地的安全、合法、人道和道德生产。WRAP 原则的基础是通用的国际工作场所标准以及当地的法律和工作场所规定，其中包括人力资源管理、健康与安全、环境实践，及进口/出口、海关合规性和安全性标准的法律合规性。

## 质量管理体系

### ISO 9000 标准

ISO 9000 系列标准涉及质量管理的各个方面，并包含一些最著名的 ISO 标准。这些标准为希望确保其产品和服务始终满足客户要求并不断提高质量的公司和组织提供指导和工具。

ISO 9001 规定了质量管理体系的要求，并且是该系列中唯一可用于认证（尽管并非强制要求）的标准。它适用于任何组织（无论其规模大小和活动领域）。该标准基于许多质量管理原则，包括以顾客为关注焦点、顶层管理的动机和含义、过程方法和持续改进。

ISO 9001 受到 OEKO-TEX® STeP 的认可，被视为满足质量管理体系标准。

本系列包含的其他标准包括：

质量管理体系 – 基础和术语

质量管理体系 – 组织的持续成功

管理系统审核指南

### IATF 16949

IATF 16949:2016 由 IATF 国际汽车工作组发布，替代 ISO/TS 16949，是在汽车质量管理领域广泛使用的国际标准。目的是发展质量管理体系，提供持续改进、缺陷防范、减少汽车零部件供应链中容易产生的质量波动和废弃物。基于 ISO 9001，统一了各国的质量管理体系要求。



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monises country-specific regulations of quality management systems.

## 9.6 Health & Safety

### 9.6.1 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.

The standard was developed by the ANSI Accredited Standards Committee Z10, including over 40 members from industry, labour, government and special groups.

The standard defines minimum requirements for an occupational safety and health management system and applies to organisations of all sizes and types.

### 9.6.2 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.

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.

### 9.6.3 ISO 45001

The International standard for certification is ISO 45001 (Occupational health and safety management systems – Requirements with guidance for use).

ISO 45001 is set to replace 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.

### 9.6.4 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.

## 健康和安全

### ANSI Z10-2012

美国安全工程师学会的 ANSI Z10-2012 标准提供了管理体系要求和 EHS 改进指南。

该标准由 ANSI 认可的标准委员会 Z10 制定，该委员会包括来自工业、劳工、政府和特殊团体的 40 多名成员。

该标准规定了职业安全与健康管理体系的最低要求，并且适用于各种规模和类型的组织。

### CSA Z1000

CAN/CSA Z1000-2006 是加拿大国家标准，重点强调了职业健康与安全管理体系流程。Z1000 重点强调员工参与及其他关键特性，为组织提供了一种有助于改进现有 OHSMS 计划或建立新计划的工具。

基于“策划-实施-检查-改进”管理体系模式，可将 Z1000 纳入已有 ISO 45001、ISO 9001 或 ISO 14001 体系的公司。

### ISO 45001

国际认证标准是 ISO 45001 (职业健康与安全管理体系 – 要求以及使用指导)。

ISO 45001 将取代 OHSAS 18001。

ISO 45001 规定了 OH&S 管理体系的要求，帮助组织制定和实施包含有关 OH&S 风险的法律规定和信息的政策和目标。它适用于各种类型和规模的组织及不同的地域、文化和社会条件。

### OHSAS 18001

OHSAS 18001 是英国职业健康与安全管理体系标准。它被普遍认为是全球最为人知的职业健康与安全管理体系标准之一。OHSAS 18001 将被 2018 年 3 月发布的 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)

自愿保护计划 (VPP) 旨在促进有效的工作场所安全与健康。根据 VPP, 管理层、劳工与 OSHA 在工作场所建立合作关系, 实施全面的安全与健康管理体系。加入 VPP 是 OSHA 对职业安全与健康模范雇主和雇员杰出努力的正式认可。

## 伦理标准

### 负责任羽绒标准(RDS)

负责任羽绒标准(RDS)使公司能够确保使用的羽绒来自人道对待的水禽。



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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-

## 附录

### 更多信息参考资料和工具

#### 化学品管理

##### OEKO-TEX® STANDARD 100

OEKO-TEX® STANDARD 100 是全球通行的、针对所有加工环节的纺织品原材料、半成品和成品以及所用辅料的独立一致的检测和认证系统。可获得认证的制品的示例包括：原料和染色/成品纱线、编织品和针织品、辅料（如纽扣、拉链、缝纫线或标签）以及各种类型的制成品（各类服装、家用纺织品、被单和枕套、毛巾产品等等）。STANDARD 100 基于全面严格的测量目录，其考虑了：

- 重要的法律条例，例如禁用偶氮染料、五氯苯酚、镉、铅(US-CPSIA)等
- 即使尚未受到法律监管的许多有害化学品
- 许多与环境相关的物质类别
- 欧洲化学品监管法规 REACH 的附录 XVII 和 XIV 以及 ECHA 的 SVHC 候选清单的要求

我们的检测标准和限值通常比当地适用的国家和国际标准更为严格。

##### OEKO-TEX® LEATHER STANDARD

OEKO-TEX® LEATHER STANDARD 是一套全球标准化的独立皮革产品测试和认证系统，并考虑到所有加工阶段、皮革纤维材料、所有种类的皮革辅料和皮鞋。

该标准分为四个产品级别：婴幼儿产品、直接接触皮肤类产品、非直接接触皮肤类产品以及装饰材料。皮革和皮毛的认证受皮革标准的特殊规定限制。不予认证来自珍稀动物物种的皮革。

##### OEKO-TEX® ECO PASSPORT

OEKO-TEX® ECO PASSPORT 认证体系使得化学品制造商和供应商可以通过其证明自身产品可用于可持续发展的纺织品和皮革生产。OEKO-TEX® ECO PASSPORT 认证包含四步验证流程，前两步对于取



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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)

得 ECO PASSPORT 证书必不可少，后两步可自行选择，根据申请人的要求进行。

- 1. CAS 编号筛查 (强制)
- 2. 分析验证 (强制)
- 3. 自我评估 (强制要求)
- 4. 现场审核 (可选)

### 10.1.4 Reference values for chemical assessment

### 化学品评估的参考值

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.

下表是具有全球相关性的不同来源的重要终点的图形表示，其中化学品的危害由符号、关键词或代码来表示。

**Acute 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

**Acute 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

**Acute 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 any concentration	
at ≤ 0.1%	≥ 30% Cat 1A	
at 1.0 - 1.0 %	≥ 60% Cat 1A; ≥ 30% Cat 1B	
at > 1.0 %	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	≥ 15% Cat 1A	
at ≤ 0.2%	≥ 60% Cat 1A; 15 - 60% Cat 1B	
at 0.2 - 20.0 %	or ≥ 15% Cat 1B	
at > 20.0 %		

**Eye irritation / corrosivity**

Adverse Effect	Irreversible destruction of tissue or irritation persisting > 21 days	Irritation persisting 8 to 21 days	Moderate irritation 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)

### 化工助剂 TEGEWA 分类图

德国 TEGEWA e.V. (纺织品、纸张、皮革和毛皮助剂和着色剂、表面活性剂、络合剂、抗菌剂、聚合物絮凝剂、化妆品原料、药用辅料及相关产品生产商会) 提供买家指南、产品手册以及用于对纺织品和皮革行业中使用的化学品和助剂进行分类的更多信息。

### 全球化学品统一分类和标签制度 (GHS)

全球化学品统一分类和标签制度 (GHS) 是联合国推出的系统, 旨在采用一致的标准替代全球各国不同的化学品分类和标签系统。化学品和制剂的标签包括符号、标志词, 以及描述相关的物理、健康和环境危害的短句。该文件还介绍了必须与化学品和制剂的材料安全数据表一同提供的信息。

当前版本的 GHS 可以从联合国欧洲经济委员会 (UNECE) 的官方网站进行下载。

### 欧盟危险物质的分类、标签和包装法规 (CLP)

欧洲的化学品和制剂的分类、包装和标签规则已有多年的发展历史。以下法律文件十分重要, 至今仍在欧洲及欧洲以外的地区发挥其影响力。例如, 源自这些文件的 R 和 S 级用法后广泛应用于化学品有关的数据。以下为历史上最重要的指令/法规:

- 67/548/EEC (有关危险物质分类、包装和标签的法律、法规和行政规定的指令)。
- 1999/45/EC (有关危险制剂的分类、包装和标签的成员国近似法律、法规和行政规定的指令)



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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).
- 2001/59/EC (根据第 28 届理事会指令 67/548/EEC 的技术发展, 有关危险物质分类、包装和标签的近似法律、法规和行政规定的指令)
- 1272/2008/EC (有关物质和混合物的分类、标签和包装的法规, 修订和废除了指令 67/548/EEC 和 1999/45/EC, 并修订了法规 (EC) 第 1907/2006 号)。

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.

自最后一个法规, 欧洲开始采纳联合国的 GHS 方案并修订 REACH 法规的相关部分。

### 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).

### REACH 法规

REACH 中最终授权的 SVHC 候选物质清单中包含的物质如下:

- 1 类或 2 类致癌物
- 1 类或 2 类致突变物
- 1 类或 2 类生殖毒性物质
- 持久性、生物累积性和毒性物质或者
- 强持久性和强生物累积性物质

该清单可从欧洲化学品管理局(ECHA)的官方网站进行下载。

### 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.

### 美国 EPA

美国国家环境保护局 (EPA 或有时称为 USEPA) 是美国联邦政府一个机构, 其创设目的在于根据国会通过的法律制定并执行法规以保护人类健康和环境。

在 US EPA (美国国家环境保护局) 内, 存在一个名为“环保设计”(DfE) 的计划。该计划得到工业界、环保团体和学术界的支持, 其共同目标是降低可能与化学品使用相关的人类和环境风险。为此, 他们编写了一份题为“环保设计计划: 危害评估中的替代品评估标准”的文件, 其中提出了与人类和环境相关的各种终点的指导值。该文件可从 US EPA 的官方网站进行下载。

### 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

### 加州第 65 号提案

第 65 号提案要求加利福尼亚公布已知会导致癌症、先天缺陷或其他生殖危害的化学品清单。该清单每





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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-

ated 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.

### 化学品评估和管理体系

目前还没有关于化学品管理体系的国际标准。

各种计划和外部服务提供商提供有助于评估化学品的工具，例如基于 CAS 号（化学文摘社登记号）进行评估。以下计划和工具可能有助于对使用的化学品进行评估，并且这些化学品可通过其 CAS 号进行鉴定并通过各种终点进行评估。

BizNGO 联盟发布了用于化学管理体系的实用方法，该方法与 OEKO-TEX® STeP 认证计划的要求和评分级别高度重叠。如需了解更多信息，请访问 bizngo 网站。

一家独立的瑞典非营利性组织，倡导没有危险化学品的世界。国际化学品秘书处所列 SIN(慎名单)是欧盟可能限制或禁用的化学品的综合数据库。该清单是公开的，定期更新，并完全免费提供。

GoBlu 是服装和纺织公司的可持续发展加速器，为全球客户提供品牌级、供应链级和通信服务。他们的 BluHive 应用程序是管理化学品的一条智能途径。通过智能手机，现在任何人都可以通过拍摄化学容器的快照或扫描 QR 码来开发准确、最新的化学品库存。BluHive 自动将扫描结果或快照与相关的附加信息进行匹配，并提供有关主要可持续性认证或凭据的数据，从而创建完整的化学品库存列表。



STeP

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 是一种比较性化学品危害评估(CHA)方法,可用于识别高度关注的化学品和更安全的替代品。它是一种评估化学品的各种终点和影响类别(影响极高、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).

一款可用于评估产品中化学品的健康和环境危害的软件工具(非免费)。

### 10.1.12 Zero Discharge of Hazardous Chemicals (ZDHC)

### 有害物质零排放 (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.

ZDHC 是一个由纺织品和鞋类制造商及零售商于 2011 年成立的基金会。ZDHC 计划的目标是预防和消除危险化学品并支持安全的化学品管理。

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).

OEKO-TEX®支持 ZDHC 行动,并将 ZDHC 认可废水检测实验室列表作为认可机构的参考列表(参见 ZDHC 网站/计划/输出)。

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.

作为其零排放计划路线图的一部分,ZDHC 已经将 OEKO-TEX® ECO PASSPORT 认证视为其 MRSL 合规性指标。经过 ECO PASSPORT 认证的化学品可列入 ZDHC 网关化学品模块。

## 10.2 Environmental Performance

## 环境绩效

### Amfori BEPI

### 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)

- amfori BEPI 系统为参与者提供了一种基于风险的方法,用于识别并解决其供应链中的环境影响。
- 四步法:供应链绘图、分析、改进和进度测量
- 级联效应:成员可主动与他们的 1 级生产商合作,以通过 BEPI 平台访问 2 级和 3 级生产商
- 客户可利用 amfori BEPI 自我评估,提供有关 11 个环境绩效领域(例如能源使用、温室气体、化学品管理)的信息和数据

### Collaboration for Sustainable Development of Viscose (CV) Roadmap

### CV 再生纤维素纤维行业绿色发展联盟路线图

- Continuous improvement and phased approach according to CV's sustainability criteria, e.g.:

- 根据 CV 的可持续性标准,持续改进和采用分阶段的方法,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-

- 将每吨产品的用水量减少至 55 m<sup>3</sup>，将每吨产品的能耗降至 1000 kgce，并将总硫回收率降至 87%

### 确保鞋类和皮革制品符合生产标准的合作协会 (CADS)

- CADS 旨在确保鞋类和皮革制品的质量，区分以质量标签保证其质量的鞋类和皮革制品，并从事公共关系工作，以制造和销售符合社会责任的可持续、无毒、环保鞋类、鞋材和皮革制品。
- 在其手册中，CADS 提供了 13 项避免生产过程和皮革产品中六价铬的不同建议。

### 欧盟 BAT 参考文件(BREF)

- 聚合物的生产（包括粘胶纤维技术）
- 化学领域的常见废水和废气处理/管理体系

### 全球报告倡议(GRI)

- 可持续性报告的公认格式 GRI。可持续发展报告是一份机构报告，提供有关经济、环境、社会和治理绩效的信息。

### 全球有机纺织品标准(GOTS)

- 全球领先的关于由有机纤维制成的纺织品的加工标准之一。它规定了整个有机纺织品供应链上的高级环境标准，还要求遵守社会标准。

### 皮革工作组(LWG)

- LWG 是一个多利益相关方团体，其目标是制定和维护对皮革制造商的环境合规性和性能进行评估的方案，并促进皮革行业内可持续的适当的环境商业实践。
- 该方案的主题是环境要素。它不关注社会、道德、健康和安全、或动物健康问题；也不制定受限物质标准或限值。审核方案包括评级系统（金、银、铜）。

### 户外行业协会(OIA)

- OIA 代表户外娱乐活动产品的零售连锁店。这是一家总部位于美国的组织，在欧盟拥有相似的组织。有关其可持续发展指数以及他们与 SAC 密切合作的更多信息，请访问 OIA 网站。



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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.

### 可持续服装联盟(SAC)

- 一家主要品牌和零售组织的联盟，致力于提高纺织产品和生产的可持续性。作为 HIGG 指数的发明者，SAC 为测量并标引纺织品和服装行业的可持续实践提供了一个不断发展的框架。

### 质量管理体系

- **ISO 31000:** 该标准提供了管理风险的原则、框架和流程。它适用于任何规模、活动或部门的组织。ISO 31000 无法用于认证目的，但能够为内部或外部审核程序提供指导。
- **OECD 公司治理原则:** 该原则帮助政策制定者评估并改进公司治理的法律、监管和制度框架。
- **PDCA (“策划-实施-检查-改进”或“策划-实施-检查-调整”):** 一种迭代式四步管理方法，用于企业控制并持续改进流程和产品。它也被称为戴明环/循环/轮、舒华特循环、控制环/循环或者“策划-实施-学习-改进”(PDSA)。
- **EFQM (以前称为“欧洲质量管理基金会”):** 一个总部设在布鲁塞尔的非营利性会员制基金会。EFQM 是 EFQM 卓越模型的管理机构，该模型是一种非规定性管理框架，广泛应用于欧洲及其他地区的公共和私营部门组织。
- **六西格玛:** 一套最初由摩托罗拉在 1985 年开发的流程改进工具和策略。在 Jack Welch 于 1995 年将其作为通用电气经营策略的核心焦点后，六西格玛变得众所周知，如今已被用于不同的工业部门。
- **Kaizen:** “改善”或“变好”的日语。它指的是聚焦于持续改善制造、工程和企业管理过程的理念或实践。
- **质量圈:** 一组从事相同或类似工作的工人，其定期会面以识别、分析并解决与工作相关的问题。



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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:** 消费品安全委员会是一家美国政府机构，负责保护消费者免受有害产品的侵害。
- **MAC:** 工作场所的最大允许浓度可在 ILO 化学品暴露限值数据库中找到。





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## 11 Reference to STeP

## STeP 参考

### Exclusion criteria

排除标准

### Reference to Chemical Management STeP

化学品管理

<a href="#">4.1.2</a>	At least one person with responsibility for all chemical duties shall be named.	应指定至少一人负责所有化学品工作。
<a href="#">4.1.3</a>	All SDS for all chemicals used for processes and non-core activities have to be available.	必须提供用于过程和非核心活动的所有化学品的所有 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.	需要提供工厂中使用的所有化学品清单，包括产品名称（产品的商品名称或化学成分、物质名称）
<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.	工厂应掌握所用化学品以下几方面的信息，并且最好保存在库存列表或 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.	如果工厂使用了 OEKO-TEX® STeP 的 MRSL 中提到的任何化学品，则不允许工人和环境暴露于这些化学品中。有关当局应对此进行描述、记录或批准。
<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.	如果您的生产过程中使用了任何候选物质（REACH 的附录 XIV，清单持续更新中！），则生产制品中任何超过 0.1% 的此类化学品的含量均应通知给销售商。

### Reference to Environmental Performance STeP

环境绩效

<a href="#">Annex 4</a>	The use of heavy petrol/gasoline in printing is not permitted.	不允许在印花中使用重油。
<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.	除羊毛中极深的色调以外，不允许使用重铬酸盐作为氧化剂来改善色牢度。
<a href="#">Annex 4</a>	The use of chlorinated organic solvents or fluoro chlorinated organic solvents/liquids in open systems is not permitted.	不允许在开放系统中使用氯化有机溶剂或氟氯化有机溶剂/液体。
<a href="#">Annex 4.1</a>	The use of chlorofluorocarbons (CFCs) or dichloromethane as a	禁止在泡棉生产中使用氯氟烃(CFCs)或二氯甲烷作为发泡剂。



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foaming agent in foam production is not permitted.

<a href="#">Annex 9</a>	Precautions to avoid the formation of Chromium VI shall be taken.	应采取避免形成六价铬的预防措施。
<a href="#">4.2.1</a>	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.	在适用的情况下, 应持有废气排放、有害物质、空气调节、废弃物处置/处理所必需的许可证或执照以及锅炉、蒸汽容器、发电机和变压器等公用设施。
<a href="#">4.2.1</a>	Required permits for the handling of hides as raw materials for the food industry shall be available, if applicable.	如果适用, 应提供处理作为食品工业原材料的原皮所需的许可证。
<a href="#">4.2.1</a>	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.	应始终考虑工厂的环境绩效, 特别注意标准中第“4.2.1”节所列的具体问题和目标。
<a href="#">4.2.1 / 4.2.5</a>	Knowledge and documentation regarding annual energy resources and consumption are required.	需要了解并记录年能源消耗量。
<a href="#">4.2.2</a>	Knowledge and documentation regarding annual water and consumption are required.	需要了解并记录年用水量。
<a href="#">4.2.2</a>	The facility shall hold the necessary license(s) or permit(s) for use of water.	工厂应持有必要的用水许可证或执照。
<a href="#">4.2.3</a>	Knowledge about the legal standards and conditions regarding cleaning of wastewater are required.	需要了解有关废水净化的法律标准和条件。
<a href="#">4.2.3</a>	Wastewater shall be cleaned according to the legal standard.	应按照法律标准对废水进行净化。
<a href="#">4.2.3</a>	The facility shall hold the necessary licence(s) or permit(s) for wastewater treatment.	工厂应持有必要的废水处理许可证或执照。
<a href="#">4.2.3 / Annex 3.3 / Annex 5.1 / Annex 5.2</a>	Compliance with the STeP standard regarding the conditions for wastewater and, if applicable, for sludge shall be checked (direct and/or indirect discharge).	必须根据 STeP 标准对废水 (如适用) 和污泥条件进行检查 (直接和/或间接排放)。
<a href="#">4.2.4</a>	Heating plants, gas/diesel generators and production machines which cause air emissions shall be identified, located and recorded.	必须确认、定位并记录热电厂、汽油/柴油发电机和生产机器造成的废气排放
<a href="#">4.2.4</a>	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	热值>2 MW 的供热车间的空气排放外部检测, 每年应检测至少一次; 而对于热值介于 0.3 MW 和 2 MW 之间的供热车间, 每三年应检测至少一次。燃气/柴油发电机应至少每 3 年进行一次测试。



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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.	必须了解废气排放的法律标准和条件。
<a href="#">4.2.4 / Annex 5.4</a>	Compliance with the STeP standard regarding emissions shall be confirmed by an external party.	必须由外部机构检验排放是否符合 STeP 标准。
<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.	这一条应纳入企业政策，也是全球共同目标：到 2030 年 GHG 排放（例如 CO <sub>2</sub> 、甲烷、一氧化二氮、臭氧）减少 30%（以 2010 年为基准），并在 2050 年左右实现碳中和和/或净零排放。
<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，应记录工厂碳足迹（CO <sub>2</sub> 当量）计算体系并明确目标。
<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 章节中提及的最小化碳足迹（CO <sub>2</sub> 当量）以及所有可能导致全球变暖的潜在化学品，应纳入计划并记录。
<a href="#">4.2.6</a>	Cooling equipment containing Chlorofluorocarbons (CFCs) or brominated fluorohydrocarbons shall not be used.	不得使用含有氯氟烃(CFC)或溴化氟代烃的冷却设备。
<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.	如果风险评价不可用，并且未采取适当的措施，或措施未获地方当局的批准，禁止所有的现场废弃物处理和垃圾填埋。
<a href="#">4.2.8</a>	Improper disposal of hazardous substances is not permitted.	不允许对有害物质进行不当处置。
<a href="#">4.2.8</a>	Waste storage areas shall be protected from weather influence and shall be fire proof.	废弃物存储区域必须免受天气影响和防火。
<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.	必须采取措施防止化学品泄漏到环境中、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.	化学品的容器、包装盒和填充站必须标有相应的警告标志和防护措施。
<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、异丙醇等储存在金属桶里的高度易燃液体可能会在空气中形成有可能爆炸的混合物，因此使用时应当接



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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。易燃固体（例如连二亚硫酸钠）应储存在干燥处并防水，并且桶应始终保持封闭状态。

<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.	工厂必须能够证明，所有化学物质都已安全地储存在专用房间或区域中。
<a href="#">4.2.11</a>	Records of any incidents with environmental impact shall be available.	必须提供具有环境影响的所有事件的记录。
<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.	应安排专门的工厂应急小组来负责处理所有化学和环境污染事故，并定期对其进行培训。
<b>Reference to STeP</b>	<b>Environmental Management System</b>	<b>环境管理体系</b>
<a href="#">4.3.1</a>	An Environmental Management System shall exist.	必须具有环境管理体系。
<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.	所有对环境产生直接或间接影响的活动、产品和绩效都应进行环境评估并妥善记录。一年评估一次，或者在生产对环境产生的影响发生重大变化时开展评估。
<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.	工厂必须建立程序，用于记录与活动、产品和服务的环境因素有关的所有法律、监管及其他政策规定。
<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.	应至少一年更新一次环境评估，或者在生产对环境产生的影响发生重大变化时更新评估。
<a href="#">4.3.10.2</a>	An audit/program to regularly assess the Environmental Management System shall be set in place.	应具备定期评估环境管理体系的审核程序。
<a href="#">4.3.10.2</a>	Internal EMS audits shall be performed annually.	每年进行内部环境管理审核。
<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.	工厂应制定有关所有化学品的场地规划，指明物质交货、储存和可供使用的所有区域。



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**Reference to Social Responsibility  
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**社会责任**

<p><b>4.4.3</b></p>	<p>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.</p>	<p>必须实施国际劳工组织的 8 个基本人权核心公约和联合国有关歧视、强迫劳动、童工、报酬、自由结社/集体谈判、工作时间、健康和安​​全、骚扰和虐待的行为准则或政策。</p>
<p><b>4.4.3</b></p>	<p>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.</p>	<p>工厂必须制定包括所有措施、责任、目标、过程在内的相关书面政策和/或行为准则来保障和管理其社会责任。</p>
<p><b>4.4.3</b></p>	<p>At least one person with responsibility for all aspects of the social responsibility module shall be named.</p>	<p>至少应任命一名员工负责处理社会责任模块各个方面。</p>
<p><b>4.4.3</b></p>	<p>The responsible person for social compliance shall be trained regularly towards all aspects of the "Social Responsibility" module including any risks in this regard.</p>	<p>社会合规负责人必须定期接受培训，了解“社会责任”模块的各个方面，包括社会合规方面的任何风险。</p>
<p><b>4.4.3</b></p>	<p>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.</p>	<p>负责人应面向所有员工定期开展以社会责任（例如行为准则）为主题的培训讲座，并保留培训记录。</p>
<p><b>4.4.4 / 4.4.6</b></p>	<p>The apprentice programme shall comply with all applicable local legal requirements.</p>	<p>见习计划必须遵守所有适用的当地法律要求。</p>
<p><b>4.4.6</b></p>	<p>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.</p>	<p>不得雇用未满 15 岁的工人，公司不得支持招聘任何未满 15 岁的工人。</p>
<p><b>4.4.6</b></p>	<p>Special workplace conditions for young workers shall be implemented in the policy/management system.</p>	<p>企业须已建立针对年轻工人特殊工作条件的政策/管理体系。</p>
<p><b>4.4.6</b></p>	<p>Risk assessment of the ongoing hazard identification at workplace shall be performed on a regular basis.</p>	<p>应定期开展工作场所危险源辨识的风险评价。</p>
<p><b>4.4.7</b></p>	<p>The company shall comply with all applicable legal requirements on minimum wage, severance pay and governing benefits.</p>	<p>公司必须遵守有关最低工资、遣散费和管理效益的所有适用法律规定。</p>
<p><b>4.4.7</b></p>	<p>The facility shall define a strategy or roadmap how to achieve living wage for all employees.</p>	<p>工厂应制定策略或路线图，确保所有员工的收入都达到生活工资水平。</p>
<p><b>4.4.7</b></p>	<p>Wages shall be paid on time.</p>	<p>薪酬必须按时支付。</p>





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<a href="#">4.4.7</a>	Social insurance shall be provided for all workers.	应为所有工人提供社会保险。
<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.	工厂的所有工作人员都应获得相应酬劳。至少应获得最低工资，或按行业内及共同商定的工资（以较高者为准）发放。工资和非工资福利（包括计件工资）应符合有关工资、遣散费和非工资福利的所有法规要求。
<a href="#">4.4.7 / 4.4.8</a>	Work performed shall be based on recognised employment agreements.	完成的工作必须基于确认的雇佣协议。
<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.	任何工资扣减均应以书面形式记录在工厂的人事档案中，并且必须以易于理解的方式将任何扣减情况告知工人。
<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.	必须向每位员工提供书面劳动合同，员工最迟应在用工首日收到劳动合同原件。劳动合同必须符合所有的适用法律规定。
<a href="#">4.4.8</a>	The labour contract shall be written in workers language. It shall be understood by the workers.	劳动合同必须以员工的语言进行书写。合同内容应该被员工所理解。
<a href="#">4.4.8</a>	The company shall follow the corresponding legal requirements for maternity protection.	公司应遵守相应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.	工厂应制定书面招聘和解聘政策以及书面发展计划和财务效益政策。
<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.	人力资源部门及其他相关部门的员工应定期接受培训，确保遵守该政策以及当地和国家法律要求。
<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.	公司必须遵守关于自由结社和集体谈判权的所有适用法律规定。
<a href="#">4.4.9</a>	The company shall allow the workforce to form, join and organise unions for all employees.	公司必须允许其员工为全体员工建立、加入和组织工会。
<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-	在国家法律禁止或阻碍组织工会以促进和维护工人或雇员利益的国家，公司应明确推广代表工人的其他方式。



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izing to promote and defend the interests of workers or employees.

<p><b>4.4.10</b></p>	<p>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.</p>	<p>工厂应实施正规的沟通制度，包括内部申诉制度，工人可以通过该程序将其投诉传达至工厂负责人（例如投诉箱）。该制度应当包含说明投诉类型、分析、整治方案和行动的纠正措施。</p>
<p><b>4.4.10</b></p>	<p>Additionally to the internal grievance mechanism the facility shall provide a mechanism to all workers where they can communicate their complaints externally.</p>	<p>除内部申诉机制之外，工厂应当为所有工人提供外部投诉机制。</p>
<p><b>4.4.11</b></p>	<p>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.</p>	<p>公司应遵守所有适用于工作时间（正常工作时间和加班）的法规要求。每周正常工作时间不得超过 48 小时。每周加班时间不得超过 12 小时。</p>
<p><b>4.4.11</b></p>	<p>The company shall comply with all applicable legal requirements regarding time off work (breaks, after finishing work etc.).</p>	<p>公司必须遵守有关下班时间工作（休息时间，完成工作后的时间等）的所有适用法律。</p>
<p><b>4.4.11</b></p>	<p>Appropriate breaks during work periods shall be guaranteed.</p>	<p>必须确保在工作期间有适当的休息。</p>
<p><b>4.4.11</b></p>	<p>Overtime shall be voluntary unless it is regulated in a collective bargaining agreement.</p>	<p>除非在劳资协议中另有规定，否则加班必须坚持自愿原则。</p>
<p><b>4.4.11</b></p>	<p>The company shall nominate a responsible person for all time monitoring key figures and records who has knowledge of the legal provisions.</p>	<p>公司应任命一名人员，负责随时监控关键数字和记录，并了解相关法律规定。</p>
<p><b>4.4.11</b></p>	<p>A designated trusted person shall be made available to review anonymous complaints from workers.</p>	<p>应指定可信赖的专员负责审查工人的匿名投诉。</p>
<p><b>4.4.12</b></p>	<p>The company shall comply with all applicable legal requirements governing workplace harassment or abuse.</p>	<p>公司必须遵守有关工作场所骚扰或虐待的所有适用法律规定。</p>
<p><b>4.4.12 / 4.4.14</b></p>	<p>Disciplinary actions such as corporal punishment, mental or physical coercion, or verbal attacks are not tolerated.</p>	<p>不得实施体罚、精神或肉体胁迫，或言语攻击等纪律性措施。</p>
<p><b>4.4.13</b></p>	<p>The company shall comply with all applicable laws governing discrimination.</p>	<p>公司必须遵守有关歧视的所有适用法律。</p>



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<a href="#">4.4.13</a>	Wage deductions shall not be done for disciplinary purpose.	不能因为纪律问题扣除工资。
<a href="#">4.4.14</a>	The company shall not apply any forced, bonded, indentured and prison labour.	公司必须遵守有关强迫、契约和监狱劳工的所有法律要求。
<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.	公司应保证工人保管或管理其工作合同原件、身份证、工作许可证和旅行证件。
<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.	在招聘及雇佣期间，公司严禁收取押金及保证金
<a href="#">4.4.15</a>	Free drinking water shall be provided to all employees.	必须向所有员工提供免费的饮用水。
<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).	公司必须遵守有关卫生设施、食堂/就餐区和宿舍(如适用)的所有适用法律规定。
<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.	公司应任命至少一位人员，负责确保更衣室、卫生设施、食堂/就餐区和宿舍得到妥善维护并保持其安全和整洁。员工应知悉，在处理这些事项时联系该负责人，由此负责人直接向管理层报告。
<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.	必须在厂区和宿舍区为所有员工提供足够量的永久性卫生设施，尤其是厕所和洗手间。
<b>Reference to STeP</b>	Quality Management	质量管理
<a href="#">4.5.1</a>	A Quality Management System must be available.	必须具备质量管理体系。
<a href="#">4.5.3.6</a>	An audit/program to regularly assess the Quality Management System shall be set in place.	应制定定期评估质量管理体系的审核/计划。
<a href="#">4.5.3.6</a>	Internal QMS audits shall be conducted annually.	内部审核应每年进行。
<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.	任何与服务或产品有关的材料和服务的外包、分包等采购行为均应受控。采购的所有货物/服务都必须满足所有指定的要求。



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<a href="#">4.5.5.2</a>	Suppliers and supply chains shall be assessed and monitored.	应评估和监督供应商和供应链。
<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.	应编制计划采购说明，确保满足所有相关要求。
<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.	供应商、次级供应商、承包商和分包商应参与改进社会工作条件、安全性、环境事项以及相关措施。
<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.	供应商、次级供应商、承包商和分包商应根据下级分包商满足 STeP 要求的能力制定和维护适当的甄选流程，并维护满足 STeP 要求的记录。
<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.	供应商、次级供应商、承包商和分包商应从个人保护、工人权利和工厂获取员工信息方面为外包工人提供培训选项。
<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.	供应商、次级供应商和/或承包商、分包商应签署 OEKO-TEX® STeP 供应商行为准则(详见附录 1),这是最低要求。
<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.	应该能够根据文件记录追溯到成品的原材料(纺织品/皮革原料、化学品等)。
<a href="#">4.5.5.3</a>	Services/products shall be identifiable at all times and tracked (traceability) throughout all stages of production.	服务/产品应始终可以辨认,并且应在生产的所有阶段进行跟踪(可追溯性)。
<a href="#">4.5.7</a>	A procedure to handle corrective action shall be implemented.	应执行纠正措施。
<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.	羽绒和羽毛只能由能够证明这些家禽在养殖过程中从未被活摘羽毛或者强制喂食的供应商提供。
<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	加工生皮的来源必须已知,且应符合 CITES (《濒危野生动植物种国际贸易公约》)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.	应制定木材采购政策，其中应考虑至少 25% 的纸浆纤维或纸浆来自此类来源，包括应确定回收材料（例如棉花废料）的数量。
<a href="#">4.5.10</a>	A risk assessment shall be carried out in regular intervals.	必须定期进行风险评价。
<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.	必须建立火灾应急预案。
<a href="#">4.6.1 / 4.6.4</a>	A health and safety management system shall be available.	应制定健康与安全管理体系。
<a href="#">4.6.1 / 4.6.6</a>	Compliance with the legal requirements shall be guaranteed.	应保证符合法规要求。
<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.	机器应具有基于风险评价的安全部件（防护装置、遮盖装置、覆盖装置等），以防止意外发生。
<a href="#">4.6.2.2</a>	Working areas with high noise have to be marked permanently.	必须永久标记高噪音工作区域。
<a href="#">4.6.2.4 / Annex 4.1</a>	Sand Blasting in open systems is prohibited and in closed systems restricted.	禁止在开放系统中进行喷砂作业，并限制在封闭系统中进行喷砂作业。
<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.	就化学品风险和可引起过敏反应的化学品（例如含铬染料）而言，须提供 PPE 等技术控制装备（例如，手套、护目镜、围裙、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.).	必须用警告符号正确标示含有危险化学品（例如，酸或苛性钠）的罐和容器（例如，“佩戴护目镜、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.	应根据化学品的危险程度将其隔开，尽可能防止发生化学反应。
<a href="#">4.6.2.5</a>	All responsible persons have to be trained in handling chemicals.	所有负责人员都必须接受化学品处理培训。
<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	所有需要使用化学品的工作人员都应接受化学品管理体系和相关主题（例如法律法规、化学品使用、储存、环境和安全处理）的培训。





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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.	如果在生产过程中使用挥发性有机化合物 (VOC, 定义见附件 12.1), 则必须采取措施限制工人在工作场所接触挥发性有机化合物。
<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.	如果高温环境中存在任何与热应激相关的风险, 应确定并采取相应的措施, 包括适当的防护服、规定的工作时间和休息时间、室内通风和室内空调 (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).	高噪音区域、粉尘污染区域、处理化学品区域 (例如灌装、称重、混合、运输等) 以及要求穿戴 PPE 的维修车间应该始终标有对应的警示标志。
<a href="#">4.6.2.8</a>	All workers shall wear the required PPE at relevant workplaces.	相关工作场所的所有工人应该按规定穿戴 PPE。
<a href="#">4.6.3</a>	The facility shall classify areas where hazardous explosive atmospheres may occur into zones.	工厂应当划分可能产生危害性爆炸性环境的区域。
<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.	应在气瓶储存区张贴火灾说明、紧急联系电话和 GHS 标志。
<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.	如果建筑物发生明显变化或要更改建筑物的用途, 应请静力学专家确保建筑结构适合指定的用途。
<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.	每年须由外部测试机构或工程师至少检查一次压力锅炉等重要设施。
<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.	工厂内的所有构造都应确保安全, 并且适用于计划用途和生产。必须确定并记录任何已发现和/或报告的薄弱点、损坏等, 并采取相应措施。
<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.	每月须至少检查一次逃生路线和紧急出口, 确保它们标识醒目并可自由进出。



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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.	必须制定应急计划，包括关于火灾、事故、自然灾害和化学危害的说明。
<a href="#">4.6.3.2</a>	Emergency equipment shall be kept operational and freely accessible.	应急设备应确保正常运行并易于取用。
<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.	必须指定一名经过消防安全培训的工作人员处理相关问题。
<a href="#">4.6.3.2</a>	Access to first aid equipment shall be guaranteed at all times in case of any accident.	必须保证在发生任何事故时，随时能够使用应急设备。
<a href="#">4.6.3.2</a>	Emergency and evacuation training sessions shall be held every three years at minimum.	应至少每三年开展一次紧急和疏散培训课程。
<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.	必须设有逃生路线和紧急出口，并作适当标记。工厂内的各个场所都应张贴紧急逃生路线图 (EFEP)。
<a href="#">4.6.3.2</a>	Emergency equipment shall be checked every year.	应急设备必须每年检测。
<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.	必须保持逃生路线和紧急出口通畅并可自由进出。在工作时间内，必须保持随时可从里面打开所有的紧急“出口”门。
<a href="#">4.6.3.2</a>	All platforms, elevator shafts and stairs shall be secured to prevent workers from falling.	应加固所有平台、电梯井道、楼梯，以防工人跌落。
<a href="#">4.6.3.2</a>	All switch cabinets shall be closed at any time.	所有配电箱应该始终保持关闭的状态。
<a href="#">4.6.4</a>	Risk assessment of the ongoing hazard identification at workplace shall be performed on a regular basis.	应定期开展工作场所危险源辨识的风险评价。
<a href="#">4.6.5</a>	An audit/program to regularly assess the Health and Safety Management System shall be set in place.	应制定定期评估健康和安全管理系统的审核/计划。
<a href="#">4.6.5</a>	Sufficient first aid and fire fighting personnel shall be present during production and maintenance operation.	生产和维护操作期间必须有足够的急救和消防人员在场。
<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	管理层必须确定和记录负责健康和安全的全体员工图表，该图表至少标明以下职位：部门经理、健康和安全经理、紧急情况和消防设备负责人



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responsible for emergencies, fire extinguishing equipment

**4.6.5.1**

Internal H&S audits shall be performed annually.

每年进行内部职业健康和安全审核。

**4.6.5.1**

Records of health and safety incidents and corrective and preventive action have to be kept.

必须保持记录职业健康和安全事故以及纠正和预防措施。



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## 12 Annex

### Terms and definitions

#### 12.1 Abbreviations used in OEKO-TEX® STeP and their explanations

**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.

**AOX – emission** Halogenated organic compounds as being lowly biodegradable and toxic, can spoil water for many years.

**BAT** Best Available Technologies - BAT can apply to processing, chemical and information technologies.

**CAS No** CAS Registry Numbers are unique numerical identifiers assigned by the

## 附录

### 名词和定义

#### OEKO-TEX® STeP 中使用的缩略语及其说明

ATEX 指令是两个欧盟指令，描述了在爆炸性环境中的工作场所和设备的最小安全要求。该名称最初来源于法语词汇 Appareils destinés à être utilisés en ATmosphères Explosibles (法语中“用于爆炸性环境中的设备”的意思)。“设备”指机器、器具、固定或移动设备、控制元件和仪表检测或预防系统，分别或共同用于产生、转移、储存、测量、控制和转换能量和/或加工能够通过自身潜在的引燃源造成爆炸的材料。“保护系统”指除设备的元件外，旨在制止突发爆炸和/或限制爆炸的作用范围的装置，并在市场上作为自动系统使用。“易爆气体环境”指与空气混合，在大气条件下的易燃物质，在点燃后以气体、蒸汽、薄雾或灰尘的形式，燃烧扩散到整个未燃混合物中。“潜在爆炸性环境”指在当地和操作条件下可能发生爆炸的环境。

卤代有机化合物的生物降解性差，有毒性，可长年损害水质。

可应用于加工、化工和信息的最佳可用技术。

CAS 登记号是由化学文摘社颁布的公开科学文献中描述的所有化学物质的独有的数字标识 (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.

年至今的化学物质), 包括元素、同位素、有机和无机化合物、离子、有机金属化合物、金属、非结构材料(又名“UVCB”, 即结构可变的未知材料或生物材料)。它们也被称为 CAS RN 和 CAS 编号。

<b>CMS</b>	Chemical Management System – a system that describes processes used to manage chemical selection, handling, storage and use within a facility.	化学品管理体系-描述了管理化学品筛选、处理、存储和使用的过程。
<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.	欧盟监管方案内的化学物质欧盟委员会编号。欧盟委员会编号或 EC 编号, 也记为 EC No.、EINECS No.和 EC#, 是监管当局为化学物质指定的唯一 7 位数标识符, 便于监管欧盟内的化学物质。具有 EC 编号的物质列表被称为 EC 目录表。它相当于美国的 CASRN ,化学物质可同时具有 CASRN 和 EINECS 编号。
<b>EINECS number</b>	see EC No	见 EC 编号
<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.	环境管理体系-整个管理体系的一部分, 致力于确定环境政策, 包括组织结构、职责、程序, 及实施环境政策的过程和资源。
<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.	全球化学品统一分类和标签制度或 GHS 是由联合国创建的国际公认的系统。它旨在通过在全球范围内使用一致的分类和标签标准来取代不同国家使用的各种分类和标签标准。
<b>GHG</b>	Greenhouse Gases (GHG) are gaseous components of the atmosphere that absorb solar energy re-lected	温室气体(GHG)是大气中的气体成分, 通过吸收地球表面以红外线辐射形式反射的太阳能, 从而导致全球变暖和气候变化。地球大气中的主要温室气体是水蒸气





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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>)。其他可能导致全球变暖的化学物质也归于此类，例如氟氯化碳、氟氯烃等。

<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.	有害空气污染物是指大气中存在的对人类健康有害的物质，或对气候或材料造成破坏的物质。有害空气污染物分为很多类型，如氨、一氧化碳、二氧化硫、一氧化二氮、甲烷和氟氯化碳等气体；(有机和无机)微粒物质和生物分子。
<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.	健康与安全绩效和管理体系（也称为：职业健康与安全）是一种管理体系，旨在衡量并改善企业利益相关方的安全与健康。其焦点通常在于工厂经营，但是也与产品安全有关。
<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.	国际劳工组织(ILO)是一个处理劳工问题(特别是国际劳工标准和人人享有体面工作)的联合国机构。几乎所有(193个国家中的185个)联合国成员都是ILO的成员。
<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 强调社区参与和社区发展都是可持续发展的组成部分。ISO 26000 就相关原则和七个核心主题提供指导。ISO 26000 还指出，社区参与有助于在地方层面促进实现千禧年发展目标(如今紧随其后的是实现可持续发展目标)。
<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 能源管理体系使组织能够建立必要的体系和程序，以持续改善其能源绩效，包括能源效率、能源使用和消耗。必须制定以下各项： -制定更有效地利用能源的政策 -确定目标以满足政策要求 -利用数据来更好地理解 and 做出有关能源使用的决策 -测量结果



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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

-审核政策的运作情况，以及  
-持续改进能源管理  
成为环境管理体系的一部分

<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（符号 lx）是亮度和发光度的国际单位，用于测量每单位面积的光通量。它等于 1 流明每平方米。
<b>NGO</b>	<b>Non-Governmental Organizations</b> are legally constituted corporations created by natural or legal people that operate independently from any form of government.	非政府组织是由自然人或法人依法成立的组织，其运营独立于任何政府组织。
<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气污染物和温室气体。
<b>OECD</b>	The <b>Organization for Economic Cooperation and Development</b> is an international economic organization of 34 countries founded in 1961 to stimulate economic progress and world trade.	经济合作与发展组织是成立于 1961 年的国际经济组织，有 34 个成员国，旨在刺激经济发展和世界贸易。
<b>PPE</b>	<b>Personal Protection Equipment</b> – examples are gloves or aprons , protective glasses, respirators, etc.	个人防护设备- 包括手套或围裙，防护眼镜，防毒面具等。
<b>QMS</b>	<b>Quality Management System</b> – 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.	质量管理体系-该管理系统描述了维护和控制企业运营和产品各方面质量的过程。
<b>REACH</b>	<b>Registration, Evaluation, Authorization and Restriction of Chemicals</b> 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.	化学品的注册、评估、授权和限制，是一项欧盟法规。REACH 法规涉及化学物质的生产和使用及其对人类健康和环境的潜在影响。
<b>RSL</b>	<b>Restricted Substance List</b> - a list of chemicals, auxiliaries and other substances that may not be used in textile and leather production. It includes limit values for concentrations	受限物质清单 - 不得用于纺织品生产的化学品、助剂和其他物质清单。包括产品中物质浓度的限值。RSL 基于政府法规、法律或全球公认的毒理学家的专业知识。RSL 通过加工纺织品的分析测试进行验证。



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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>	<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.	<b>Manufacturing Restricted Substance List</b> – 纺织品和皮革生产工厂中被禁止使用的化学品、助剂和其他物质清单。所列化学品不得有意用于生产过程。MRSL 可以通过化学品库存列表审查和化学品混合物的分析测试来验证。MRSL 不包括化学品合成过程或化学品的其他生产阶段。
<b>SDS</b>	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.	安全数据表(SDS)或产品安全数据表(PSDS)是产品管理和职业安全与健康的重要组成部分。它旨在为工人和紧急救援人员提供安全处理或使用该物质的程序,并包括物理数据(熔点、沸点、闪点等)、毒性、健康影响、急救、反应性、储存、处置、防护装备和泄漏处理程序等信息。SDS 格式可能因国家/地区的来源而异,具体取决于国家/地区要求。
<b>VOC</b>	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.	根据第 2010/75 号指令(IED)中的定义,挥发性有机物(VOC)是指任何有机化合物(例如乙酸、甲醛等),以及在 293.15K 条件下蒸气压大于或等于 0.01kPa,或者在特定使用条件下具有相应挥发性的杂酚油馏份。VOC 是一类主要来自工业生产(也包括纺织)和汽车的空气污染物,在大气中的反应范围很广。

**12.2 Terms and Definitions used in OEKO-TEX® STeP**

**OEKO-TEX® STeP 使用的术语和定义**

<b>Assessment tool</b>	The assessment tool is used as the application and basis for all auditing	评估工具用作 OEKO-TEX® STeP 过程中所有审核和认证的应用和基础。
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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.	能够在生产工艺中实现高效生产或产生特定影响的化工产品。此类助剂可能大部分都会存在于所生产的产品，也可能释放到环境中。
<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.	用于去除污垢、灰尘、污渍和/或难闻气味的水基溶剂、表面活性剂。这类表面活性剂可被用作洗涤剂、润湿剂、乳化剂、起泡剂和分散剂。
<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.	由一个或多个组织（比如雇主）与一个或多个工人组织（比如工会）签订的有关劳工谈判的合约，详细规定了雇用的条件和条款。
<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.).	为被 OEKO-TEX® STeP 认证的工厂提供全职或者兼职工作的任何单位或者个人，这些工作包括保安、清洁服务、送餐、食堂或厨房的服务等。
<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.	采取措施来消除导致不符合 OEKO-TEX® STeP 规定的原因。采取纠正措施，防止再次发生。对某些不合规项，始终需要采取纠正行动和措施。
<b>Degreasing agent</b>	(Degreaser) – organic solvent-based or solvent-containing cleaning agent.	(除油剂) -有机溶剂系或含溶剂的清洗剂。
<b>Employment agency</b>	A business entity who matches work interested people with the job opportunity of the facility.	为工厂寻求与之提供的工作机会相匹配的、感兴趣的人的任何组织或个人。
<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.	在工厂运营中，因常规（正常）操作、不可抗力，和/或非常规和意外/紧急情况对环境产生的任何不利影响。
<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.	排除标准属于基本问题的范围。排除标准是 OEKO-TEX® STeP 认证计划参与资格的最重要衡量标准。为了符合 OEKO-TEX® STeP 认证的参与资格，生产工厂必须满足所有的排除标准。



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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.	生产指定商品或服务的工厂或场所。在 STeP 标准中，工厂可以是纺织厂或皮革厂、裁剪和缝制厂或纺织/皮革供应链的任何衍生工厂。
<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	危害是在缺乏控制时可能给人类、其他生物或环境造成伤害或损坏的任何生物、化学、机械、环境或物理因素。危险源辨识是开展风险评估的第一步。
<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.	国际劳工组织(ILO)把家庭工定义为在他们家中或其他场所，但不在其经营场所工作的人员。家庭工通常由于特定的活动或服务而被工厂雇佣。家庭工不拥有或经营他们工作的业务。
<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 : 不受工业影响，不受政治影响，不受证书持有人的影响，是非营利组织
<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.	纺织品和皮革制品的物流中心包括存储、重新包装、装配和配送。物流中心是专注于物流运营，不含运输的设施。根据该定义，物流中心可能是仓库，重新包装设施，配送中心或类似中心，可能还包括执行质量控制检查和/或维修。
<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.	润滑剂，基于矿物油的减少移动表面之间摩擦的一种物质。它也有输送异物的功能。
<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-	微塑料是指小于 5 毫米的塑料碎片、颗粒或纤维。这些微粒既可以是生产出来的小颗粒（原生微塑料），也可以是由较大的塑料制品分解而成（二次微塑料）。当合成纺织品/纤维（合成聚合物）等较大的塑料制品由于风化、紫外线辐射以及磨损、研磨、切割、清洗或加工等机械作用而分解成较小的碎片（纤维碎裂）时，就会形成二次微塑料。由于塑料材料具有很强的抗生物降解能力，这些微粒可以在环境中长期存在。原生微塑料是





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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.

为各种用途而有意生产的小型产品，例如用于效果印花的微珠/亮片、染色/整理工艺中的植绒印花。

<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.	不符合项是指在 OEKO-TEX® STeP 审核过程中发现或检测到的不符合 OEKO-TEX® STeP 标准要求的非规范的事物。这不一定是个排除标准，但出现的问题一定是关系到关键的工艺或者流程的。
<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.	不符合 OEKO-TEX® STeP 标准而必须强制采取的措施。强制措施一定是与 OEKO-TEX® STeP 中的排除标准联系在一起的, 是因为不符合排除标准而强制必须采取的措施, 并且必须在一定的日期前采取, 并由 OEKO-TEX® STeP 审核员再次核查。
<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.	具有共同目标且与外部环境有联系的社会实体。组织可拥有工厂或设施。
<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.	消除潜在不符合 OEKO-TEX® STeP 的原因的措施。采取预防措施, 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.	化工原料可以是组分或基本化学品。化工原料具有唯一的 CASRN 编号或 EC 编号。
<b>Recommendation</b>	A suggestion or proposal to increase the process performance and/or the	建议或提议来增强绩效或者 OEKO-TEX® STeP 认证工厂的得分。



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scoring of a OEKO-TEX® STeP certified facility.

<b>Risk</b>	risk = hazard x exposure	风险=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).	(有机溶剂) -溶解溶质(化学性质不同的液体、固体或气体)并产生溶液的有机物质。(例如,四氯乙烯,甲苯,松节油,丙酮,甲基或乙酸乙酯,己烷,石油醚,柑橘类萜烯,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".	不使用水或溶剂来生产纤维或纱线(例如:棉花)的机械过程。“干法纺丝”包括“熔融纺丝”、“挤塑纺丝”、“直接纺丝”和“电纺丝”。
<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.	在供应链上为组织提供纺织/皮革生产相关产品或服务的企业单位。分包商是由 OEKO-TEX® STeP 认证工厂雇佣的,为其执行特定的任务或生产一定量的产品(由合同定义的),作为整个生产过程的一部分。
<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.	供应链上的次级供应商是指向 OEKO-TEX® STeP 认证工厂的供应商提供纺织品或皮革制品、化学品、工厂设备、机械及类似商品的企业。
<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.	供应链上的供应商是指向 OEKO-TEX® STeP 认证工厂提供纺织品或皮革制品、化学品、工厂设备、机械及类似商品的企业。
<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.	包括环境,社会以及经济方面的全球体系,既满足当代人的需要,又不对后代人满足其需要的能力构成危害。
<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.	对目前未预料或不可预见的活动的反应。根据预防原则,如果不确定某活动或过程的后果,应限制具有这类过程的活动。
<b>Worker representative</b>	One or more worker representatives freely elected by workers to facilitate	以促进同管理代表和高级管理层就 OEKO-TEX® STeP 中社会及职业健康和安全管理相关事宜进行沟通为目标,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.

工人自由选举产生的一个或多个工人代表。在工厂的工会组织内的职工代表应能自由选择工人代表，而不是由工会提名。

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**Wet/Chemical Processes** Textile and leather production processes using water and chemicals as process medium.

纺织品和皮革制品在生产过程中使用水和化学品作为工艺介质。

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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.

湿式纺丝是在水或溶剂的环境下制造纤维或纱线的过程（例如，粘胶，莫代尔，醋酸纤维，三醋酸，丙稀晴，改性丙稀晴）。有些不同的纺丝工艺-但也属于该定义下的“湿法纺丝”，如通过蒸发溶剂实现固化。这通常是由空气或惰性气体流完成。因为不涉及沉淀液体，所以不需要干燥纤维，溶剂也更容易回收。采用这种工艺可生产醋酸纤维，三醋酸，丙稀晴，改性丙稀晴聚苯并咪唑纤维，氨纶和维纶。

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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.

更多定义，例如 STeP 中不同生产类型的定义，请参阅 OEKO-TEX® MADE IN GREEN 标准。



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## I Annex

## 附录

### Code of Conduct

### 行为准则

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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).

请参阅 [www.oeko-tex.com/CoC](http://www.oeko-tex.com/CoC) 发布的 OEKO-TEX® 行为准则(CoC)。请参阅 [www.oeko-tex.com/STeP\\_CoC](http://www.oeko-tex.com/STeP_CoC) 发布的 OEKO-TEX® STeP 供应商行为准则。



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## II Annex

## 附录

### Terms of Use

### 使用条款 (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® 使用条款 (ToU) 适用于所有 OEKO-TEX® 产品。可以在 [www.oeko-tex.com/ToU](http://www.oeko-tex.com/ToU) 查看。

Please use the form below to confirm the OEKO-TEX® Terms of Use and send it to the responsible OEKO-TEX® Institute.

请使用下面的表格确认 OEKO-TEX® 使用条款并将其发送给相关负责的 OEKO-TEX® 机构。

### Agreed and accepted by user

### 用户同意和接受

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.

用户在下面签名区签名，表明其确认已经阅读、理解并完全同意所载的所有条款和条件，包括其附录。

Company	公司	
Salutation/Name/Surname	称谓/姓名/姓	
Street No.	街道地址	
ZIP-Code	邮编	
City	市	
State	州/省	
Country	国家/地区	
Phone / FAX	电话/传真	
Homepage	主页	
E-Mail	电子邮箱	

Responsible person

负责人

Name	姓名	
Phone / FAX	电话/传真	
E-Mail	电子邮箱	

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.

这些条款须由用户的两名授权代表签署，其中一名为董事会成员，另一名最好是用户组织内的 OEKO-TEX® STeP 认证负责人。





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These Terms of Use are hereby signed for and be- 使用条款由/代表用户签署，即  
half of the User, namely

registered as a 注册为

under the laws of 根据 法律

having its registered office address at 其注册办事处地址

Date, place / 日期，地点

.....

.....

Director and STeP authorised signatory  
董事和 STeP 授权签署人

Name/Title of STeP authorised signatory  
STeP 授权签署人姓名/职称



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Management representatives to ensure deputy representation during the STeP audit.

多位管理层代表从而确保 STeP 审核期间的代表充分性

Manager 1

经理 1

<b>Position/Function</b>	职位或职责	
<b>Full Name</b>	全名	

Manager 2

经理 2

<b>Position/Function</b>	职位或职责	
<b>Full Name</b>	全名	

Manager 3

经理 3

<b>Position/Function</b>	职位或职责	
<b>Full Name</b>	全名	

Manager 4

经理 4

<b>Position/Function</b>	职位或职责	
<b>Full Name</b>	全名	

Manager 5

经理 5

<b>Position/Function</b>	职位或职责	
<b>Full Name</b>	全名	

Manager 6

经理 6

<b>Position/Function</b>	职位或职责	
<b>Full Name</b>	全名	