

Principles of Chemical Management in the Textile and Garment Industries in Bangladesh

Promotion of Sustainability in the Textile and Garment Industry in Asia - FABRIC

Structure – Overall

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4. Selecting and purchasing chemicals with consideration of sustainability aspects

4.1 General information

4.1.1 The factory shall **consider environmental and safety and health aspects** while selecting and purchasing chemical.

4.1.2 For the selection and purchase of chemicals, the factory should also pay attention to the **list of substances restricted or controlled either by national law or in international** supply chains.

4.1.3 Factories should review the chemicals in their CIL against these lists on a regular basis (**recommended at least once a year**) and plan for necessary action in case any such chemicals in the MRSL are in use or present in the factory.”

4.1.4 In case of international supply, the factory is advised to take into consideration the different **Manufacturing Restricted Substances Lists (MRSL)** and **Restricted Substances Lists (RSL)**.

4. Selecting and purchasing chemicals with consideration of sustainability aspects

4.1 General information

4.1.5 Commonly referred to MRSL or similar lists include amongst others:

- Zero-Discharge of Hazardous Chemicals (ZDHC) MRSL
- Bluesign system substances list (BSSL)
- European REACH Substances of very High Concern (SvHC)
- REACH Restricted Substances
- Biocidal Active Substances
- Persistent Organic Pollutants List

4. Selecting and purchasing chemicals with consideration of sustainability aspects

4.2 Referring to lists and requirements of regulated and restricted substances

4.2.2 Steps to eliminate the use of substances restricted or controlled either by national law or in international supply chains may include the following:

- a) The factory's chemical responsible person or team shall
 - 1) Compile a list of local and international regulatory on restriction of chemicals.
 - 3) Prepare an inventory of all permits and licenses issued by DoE that shall be complied with and renewed on the due dates
 - 4) Compile a list of relevant laws on chemical restrictions in finished goods applicable to the facility

- b) After compiling the lists, the factory's chemical responsible person or team shall:
 - 1) Review these laws and assign initial and ongoing responsibilities for compliance.
 - 2) Design a system to communicate with leadership for any significant regulatory changes or permit constraints.
 - 3) Prepare a workflow system to update applicable regulatory requirements and to ensure compliance with all requirements through an action plan.

- d) All factory personnel responsible for the chemical management system shall be trained on the list of substances restricted or controlled either by national law or in international supply chains.

4. Selecting and purchasing chemicals with consideration of sustainability aspects

4.2 Referring to lists and requirements of regulated and restricted substances

- a. For this purpose, all the chemicals used in production **must be traceable from the manufacturing process back to chemical inventory.**
- b. Factory shall establish, implement and review **an implementation plan with a specific schedule to eliminate/reduce the use of substances restricted or controlled** either by national law or in international supply chains.
- c. Factory shall **clearly communicate its intention to eliminate/reduce the use of substances restricted or controlled** either by national law or in international supply chains to its chemical suppliers and request its chemical suppliers to provide chemicals which conform to the national law as well as MRSLs.
- d. For this purpose, the factory should make sure to obtain **ensure proof of the chemicals conformance from the chemical supplies** (e.g. in form of product stewardship declarations, testing requirements)

4. Selecting and purchasing chemicals with consideration of sustainability aspects

4.3 Establishing and maintaining chemical procurement and purchasing policy and practices

4.3.1 Chemical products shall be purchased from a legitimate source which can meet chemical management requirements.

4.3.2 Before ordering chemicals, the factory should assess to which extent the factory is already prepared to store and handle the chemicals to be ordered.

4.3.3 For the chemical purchasing decisions, the following parameters shall be considered: (i) Local and international laws and restrictions, (ii) MRSL conformance requirements and (iii) hazards associated with the chemicals

4.3.4 To streamline its chemical procurement practices and to reduce potential risk chemical non-conformity and risk, the factory should consider the formulation of a separate chemical purchasing policy which lays down the principles for guiding chemical purchase decisions as well as the selection of chemical suppliers...

4.3.5 The chemical purchasing policy should provide a clear commitment to addressing environmental, health and safety as well as global ecological impacts. It should also contain a clear commitment of the factory to comply with the relevant national laws and regulations as well as relevant standards that the factory's customers refer to.

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4.3 Establishing and maintaining chemical procurement and purchasing policy and practices

4.3.6 The chemical purchasing policy may cover the following scope:

- a) All dyes, pigments and inks directly applied in process
- b) Functional finishes (such as anti-microbials, flames retardants)
- c) Printing thickeners and binders
- d) Commodity chemicals
- e) Chemicals used in wastewater/effluent treatment process (except commodity chemicals)
- f) Chemicals used in engraving, developing and washing of printing screens
- g) Sizing chemicals and weaving oils/knitting oils used for in-house warping, weaving and/or knitting operations
- h) Utility chemicals used for machinery maintenance (such as lubricants, grease)
- i) Chemicals used in quality control laboratory tests
- j) Pest control chemicals
- k) Floor cleaning/sanitation detergents
- l) Others

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4.3 Establishing and maintaining chemical procurement and purchasing policy and practices

4.3.7 For formulating and applying a chemical purchasing policy, the factory shall take the following steps:

- a. Set up the specific compliance and technical requirements for all chemical products required in the factory.
- b. Communicate the specifications to chemical manufacturer/formulator/supplier.
- c. Request all relevant documents such as SDS, technical data sheet, product Specifications or relevant third-party certification (wherever required).
- d. Check RSL/MRSL, hazard and other conformance information and review SDS completeness and correctness of SDS.
- e. Ensure proper labelling and batch number of each chemical product to facilitate **the chemical's traceability** and source of the chemical product
- f. **Consider the treatability factor of chemical** product such as effluent load (BOD, COD, biodegradability, etc.) in the existing wastewater treatment plant design.
- g. Check storage and handling requirements including storage space, storage condition, personal protective equipment (PPE), special training, any transportation precautions for new chemicals relevant documents.
- h. Prepare a procedure that purchased chemicals entering within the factory shall be separated and checked for the specified quality requirements. If rejected, the chemical drums should be kept in a separate "NON-CONFORMITY" area for return to the chemical supplier with all documents and records.
- i. Ensure that after the chemical is approved by the quality department, it shall be recorded into the stock and entered in Chemical Inventory List (CIL) with required details.

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4.3 Establishing and maintaining chemical procurement and purchasing policy and practices

4.3.8 Incoming chemicals shall be tested based on performance characteristics as requested during purchase.

4.3.9 Factories are advised to also develop and employ procedures for chemical supplier selection and monitoring.

4.3.10 Chemical suppliers who may meet the following criteria could be considered as preferred suppliers:

- Be able to provide for local supplier access and availability of an emergency desk with functioning contact details,
- Be able and willing to provide, technical data sheets, product steward appropriate safety data sheets in line with GHS requirements in the local language ship and conformity declarations, and reliable test reports.
- Have a credible quality control system as well as access to certified laboratory facilities.
- Be able to provide chemicals in various packaging sizes with standard packaging and proper labeling in line with GHS;
- Be able to offer a positive list of chemicals, containing approved alternatives to substances restricted or controlled either by national law or in international supply chains.

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4.3 Establishing and maintaining chemical procurement and purchasing policy and practices

4.3.11 In line with the aforementioned selection and monitoring procedure, chemical suppliers should be also reassessed for meeting the specific requirements on a regular basis by the chemical responsible person or team before placement of chemical purchase order.

4.3.12 The following are some of the requirements that shall be considered in a purchasing policy:

- a. **Purchase guidelines for chemicals from third parties**, such as direct chemical formulators, agents, other facilities, and chemical donations, as well as approval flow diagrams.
- b. A goal to purchase only chemical products conformant to MRSL or similar lists.
- c. Ensuring proper relevant documentation for each chemical, **such as Safety Data Sheet (SDS), Technical Data Sheet (TDS), applicable third-party certifications**
- d. Purchasing new chemical products only after proper assessment for hazards, MRSL and RSL
- e. Communication of MRSL/RSL requirements to Chemical Formulators through statements in the purchase order and/or terms & conditions
- f. **Evaluation methodology of Chemical Formulators for their quality and competency to meet MRSL** conformance for their chemical products consistently
- g. **Specific precautions for purchase of recycled commodity chemicals (such as soda ash, acetic acid, etc.) to ensure they are free of contaminations of MRSL substances**
- h. Information on labelling, lot number/batch number as well as expiry dates where applicable of chemicals

4. Selecting and purchasing chemicals with consideration of sustainability aspects

4.4 Tracing chemicals in production process

4.4.1 The purpose of **chemical traceability** is to ensure that the chemical components used in the production can be traced “backward” and “forward”

4.4.2 The availability of chemical traceability systems and mechanisms allows identifying the root cause source of a failure and taking necessary corrective action ...

4.4.3 The factory should explicitly commit itself towards **ensuring traceability of chemicals** as part of its chemical policy.

4.4.4 The factory makes sure that chemical lot numbers are provided by or obtained from the chemical suppliers at the time of purchase and delivery of chemicals.

4.4.5 **The provision of lot numbers for the chemicals supplied to the manufacturing units should be verified by the factory and included as well as updated regularly in the factory's chemical inventory list.**

4.4.6 Chemical dispatch or requisition cards as issued by the chemical stores should specifically include reference to the chemical lot or/and batch number.

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4.4 Tracing chemicals in production process

4.4.8 Where internal blending/ mixing of chemicals takes place the process should be documented. The chemical mixing process and/or laboratory logs should record the chemical lot or batch number.

4.4.9 For all manufacturing processes involving chemicals, the corresponding production recipe sheets should indicate the chemical lot and/or batch numbers.

4.4.10 Wherever chemicals are used, written instructions should facilitate the forward and backward tracing of chemicals factory-wide linking the chemicals to the product/articles, the chemical inventory and chemical supplier via the corresponding purchase orders.

4.4.11 The factory should make sure that it maintains following supporting documents on records:

- Chemical purchase orders
- Chemical inventory
- Chemical dispatch/requisition sheets
- Recipe cards, chemical formulation sheets, process instructions (where applicable), containing all traceable information i.e., chemical name, available quantity, and lot number
- Chemical mixing process log and laboratory record

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