

Principles of Chemical Management in the Textile and Garments Industry in Bangladesh

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

Structure – Overall

Part 1	Part 2	Part 3
<ul style="list-style-type: none">▪ Foreword▪ Preface▪ General provisions▪ Objective▪ Scope of the guideline▪ Vision▪ Mission/objective▪ Definitions	<p>10 Technical Chapters Covering</p> <ul style="list-style-type: none">▪ Good chemical management practices▪ Using reliable information sources on chemical substances and mixtures▪ Identifying and assessing chemical hazards and risks▪ Selecting and purchasing chemicals with consideration of sustainability aspects▪ Managing and controlling chemicals risks▪ Ensuring safe storage and transport of chemicals▪ Preparing and responding to chemical emergencies▪ Managing chemical waste and residues▪ Establishing chemical management system and organisational structure▪ Other (e.g. chemical security)	<ul style="list-style-type: none">▪ Annexes▪ Glossary/Index

Objectives

1. Ensuring that **all chemicals** for use at work in the textile and ready-made garment sector, including **impurities, by-products and intermediaries** as well as **wastes** that may be formed – equal whether in **solid, liquid or gaseous form** - are evaluated to determine their hazards
2. Ensuring that factories are provided with a mechanism for obtaining from their chemical suppliers **adequate information about the chemicals used at work** to enable them to implement effective chemical management measures to protect workers, the environment and the general public from chemical hazards
3. Providing all personnel at all levels in the factory with information **about the chemicals and appropriate safe practices and preventive measures** to enable them to effectively participate in the factory's chemical management system and programmes.
4. **Establishing principles** for such factory's chemical management system and programmes to ensure that chemicals are used in a safe and environmentally sound way
5. Complying with **national chemical requirements** and achieving **conformance with expectations in international** textile and ready-made garment supply chains.

Scope of the CMG

- For the Textile and RMG industry of Bangladesh
- Use of chemicals and disposal of associated wastes
- A basic requirement to prevent or reduce,
 - the risks to workers' health and safety
 - risks to the environment and general public

Annexes

- Annex 1** - List of relevant international reference standards
- Annex 2** - List of relevant national legislation, regulations, guidelines and standards pertaining to various aspects of chemical management
- Annex 3** - List of relevant guidance references and training materials, including links
- Annex 4** - Proposed templates and forms

International regulations & standards reflected

International regulations and references

- ILO Convention and recommendations C170 and R177, plus corresponding code of practices
- Globally Harmonised System of Classification and Labelling of Chemicals (GHS)
- EU REACH (in particular with regard to labelling, safety data sheets, substances of very high concern)
- European Integrated Pollution Prevention and Control Bureau (EIPPCB) - Best Available Techniques (BAT) reference document in the textile industry
- Technical Rules for Hazardous Substances (TRGS), Germany (e.g. storage and compatibility assessment)
- HSE, UK recommendations on chemical management
- The American Conference of Governmental Industrial Hygienists (ACGIH) (Exposure limits and recommended assessment methods)

International supply chain references

- ZDHC (i.e. MRSL/RSL Guidelines, Wastewater Guidelines, CMS Guideline and Technical Industry Guide)
- SAC Higg FEM (in particular chapter 7 on chemicals) and corresponding guidance documents
- amfori (BEPI/SCCP)
- Outdoor Industry Association (OIA) Chemical management requirements and handbooks
- bluesign BSSL and guidance documents

Annexes

Annex 1 - List of relevant national legislation, regulations, guidelines and standards pertaining to various aspects of chemical management

The Bangladesh Environment Conservation Act, 1995	http://www.doe.gov.bd/site/page/40711011-9fa2-45f1-bfee-512c27103284/-
The Environment Conservation Rules, 1997	http://www.doe.gov.bd/site/page/40711011-9fa2-45f1-bfee-512c27103284/-
Ozone Depleting Substances (Control) Rules, 2004 including amendment in 2014	http://www.doe.gov.bd/site/page/c1e3a0c5-2de7-40fb-93fb-c3d23149e031/-
Hazardous waste and ship breaking waste management rules 2011	http://www.doe.gov.bd/site/page/42d5ea65-1ca6-4ccd-bc4e-0ee2cd868575/-
Bangladesh Standards and Guidelines for Sludge Management	http://www.doe.gov.bd/site/publications/f60e3b23-1329-4b8b-84cf-a5df8f2d4294/bd-Standards-and-Guidelines-for-Sludge-Management
National 3R Strategy for Waste Management	http://www.doe.gov.bd/site/publications/322bf6c9-e23e-401f-864a-73efb078cd29/National-3R-Strategy-for-Waste-Management
Bangladesh National Building Code 2015 (draft)	https://bsa.com.bd/cms_cpanel/upload/pdf_file_upload_1540152875.pdf

Annex 2 - List of relevant international reference standards

- European Integrated Pollution Prevention and Control Bureau (EIPPCB) - Best Available Techniques (BAT) reference document in the textile industry <https://eippcb.jrc.ec.europa.eu/reference/textiles-industry>
- Umweltbundesamt (Germany) - Environmental standards in the textile and shoe sector – A Guideline on the Basis of the BREFs – Best Available Techniques Reference Documents of the EU <https://www.umweltbundesamt.de/sites/default/files/medien/publikation/long/4289.pdf>
- BAUA (German Federal Institute for Occupational Safety and Health) - Technical Rules for Hazardous Substances (TRGS) <https://www.baua.de/EN/Service/Legislative-texts-and-technical-rules/Rules/TRGS/TRGS.html>
- United Nations Economic Commission for Europe (UNECE) - Globally Harmonized System of Classification and Labelling of Chemicals (GHS) <https://unece.org/about-ghs>
- Chemical Risk Assessment: Overview and Examples http://www.chemsafetypro.com/Topics/CRA/introduction_to_chemical_risk_assessment_overview_principles.html#:~:text=Chemical%20Risk%20Assessment%3A%20Purpose%2C%20

Annexes

OECD Due Diligence Guidance for Responsible Supply Chains in the Garment & Footwear Sector	http://dx.doi.org/10.1787/9789264290587-en
Sustainable Apparel Coalition (SAC) Higg FEM 3.0 – Chemical management	https://howtohigg.org/fem-landing/chemical-management-2020/
International Labour Organisation (ILO) - C170 - Chemicals Convention, 1990 (No. 170)	www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_INSTRUMENT_ID:312315
International Labour Organisation (ILO) - R177 - Chemicals Recommendation, 1990 (No. 177)	https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:55:0::55:P55_TYPE:P55_LANG:P55_DOCUMENT:P55_NODE:REC,en,R177./Document
International Labour Organisation (ILO) - Safety in the use of chemicals at work. An ILO code of practice	www.ilo.org/public/libdoc/ilo/1993/93B09_147_engL.pdf
Zero Discharge of Hazardous Chemicals (ZDHC)	
<ul style="list-style-type: none">• ZDHC Chemical Management System• ZDHC Manufacturing Restricted Substances List (MRSL)• ZDHC Wastewater and Sludge Laboratory Sampling and Analysis Plan (SAP)• ZDHC Technical Industry Guide• ZDHC Wastewater Guidelines version 1.1	<ul style="list-style-type: none">https://www.roadmaptozero.com/processhttps://www.roadmaptozero.com/inputhttps://downloads.roadmaptozero.com/output/Sampling-and-Analysis-Planhttps://www.roadmaptozero.com/processhttps://www.roadmaptozero.com/post/updated-zdhc-wastewater-guidelines-v1-1-released?locale=en
bluesign SYSTEM SUBSTANCES LIST (BSSL)	https://www.bluesign.com/downloads/bssl/2021/bssl_v11.0.pdf
European Chemical Agency (ECHA) - REACH	https://echa.europa.eu/
Stockholm Convention on Persistent organic Pollutants (POPs)	www.pops.int
Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal	www.basel.int

Annex 3 - List of relevant guidance references and training materials, including links to

COSHH e-tool	www.hse.gov.uk/coshh/essentials/coshh-tool.htm
Easy-to-use Workplace Control Scheme for Hazardous Substances (EMKG) –	www.baua.de/EN/Topics/Work-design/Hazardous-substances/EMKG/Easy-to- use-workplace-control-scheme-EMKG_node.html
Federal Institute for Occupational Safety and Health, Germany	https://op.europa.eu/en/publication-detail/-/publication/a46da1ae-edee-47aa-b871-d13baa946379
European Union DG for the Environment - EMAS "easy" for small and medium enterprises	https://op.europa.eu/en/publication-detail/-/publication/a46da1ae-edee-47aa-b871-d13baa946379
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)	
<ul style="list-style-type: none">• GIZ Basic Training Module for Chemical Management in textile wet processes	www.sia-toolbox.net/solution/basic-training-module-chemical-management-textile-wet-processes
<ul style="list-style-type: none">• GIZ Advanced Training Module for Chemical Management in textile wet processes	www.sia-toolbox.net/solution/advanced-training-program-chemical-management-textile-wet-processes
<ul style="list-style-type: none">• GIZ Digital Solutions for Substitution of Hazardous Chemicals in the Fashion Supply Chain initiative materials	Xxxx (Link will be provided)
<ul style="list-style-type: none">• GIZ Resource Efficient Management of Chemicals in textile and leather sector companies (REMC), 2017	www.sia-toolbox.net/solution/resource-efficient-management-chemicals-textile-and-leather-sector-companies
Substitution Support Portal	www.subsport.eu
The International Chemical Secretariat (ChemSec) -	https://chemsec.org/
<ul style="list-style-type: none">• ChemcSec SIN List	https://chemsec.org/business-tool/sin-list/
<ul style="list-style-type: none">• ChemSec Textile Guide	https://chemsec.org/business-tool/textile-guide/
International Labour Organisation (ILO)	
<ul style="list-style-type: none">• Chemical Safety Training Modules	www.ilo.org/legacy/english/protection/safework/cis/products/safetytm/index.htm
<ul style="list-style-type: none">• Safety and health in the use of chemicals at work	www.ilo.org/global/topics/safety-and-health-at-work/resources-

Annex 4 Proposed Templates and Forms

1. Chemical Inventory List
2. Chemical Waste Inventory
3. Training Record
4. Training Participants' Record
5. Health Check-up Record Template
6. Chemical Accident and Incident Log book

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