Chemicals Management in textile and leather industry

CHEMICAL MANAGEMENT SYSTEM SETTING THE FRAMEWORK

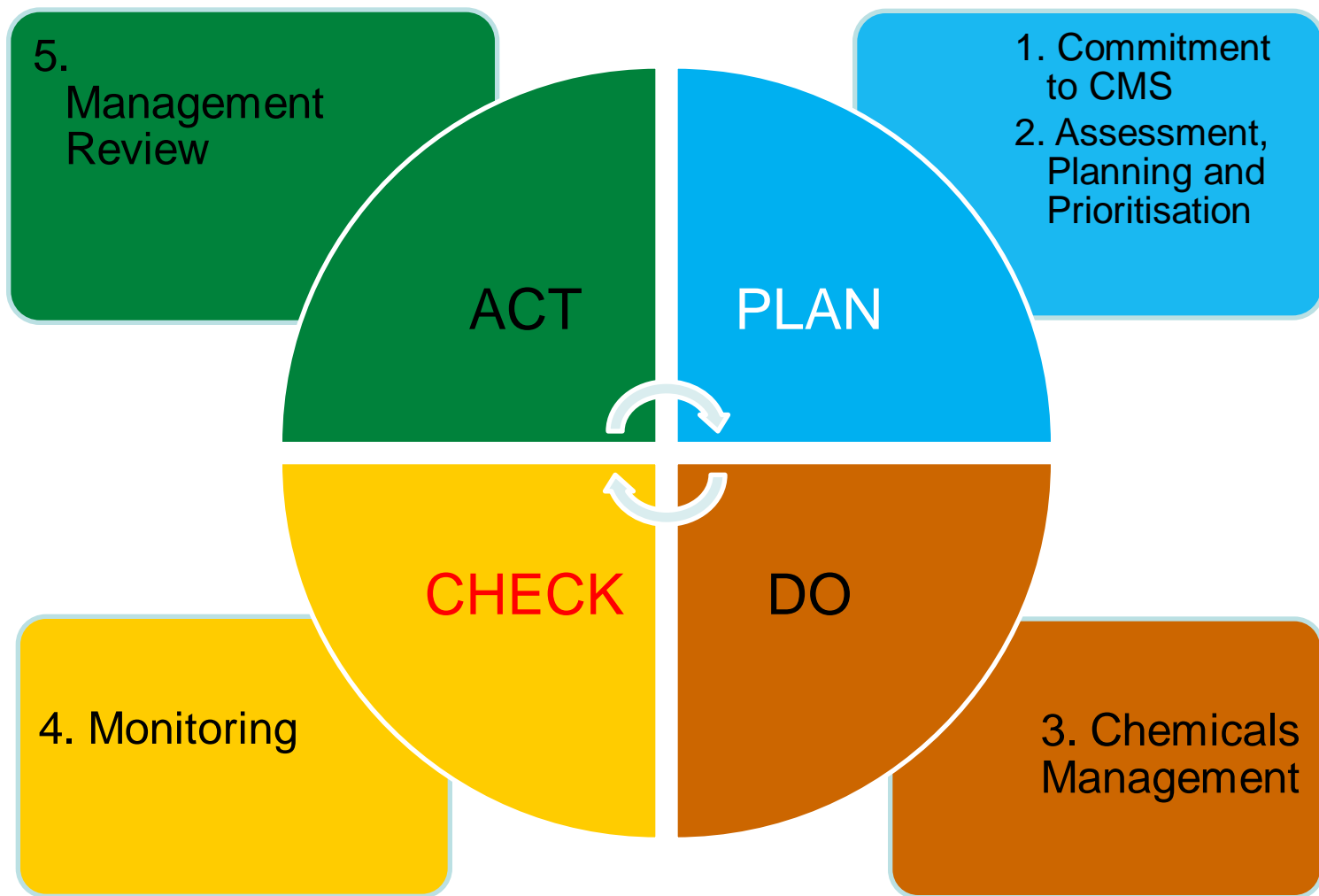# Chemical Management System
Setting the framework

With focus on ZDHC Chemical Management System CMS frame work:

- Plan-Do-Check-Act cycle

- Elements of CMS (as per ZDHC CMS Guidance Manual)
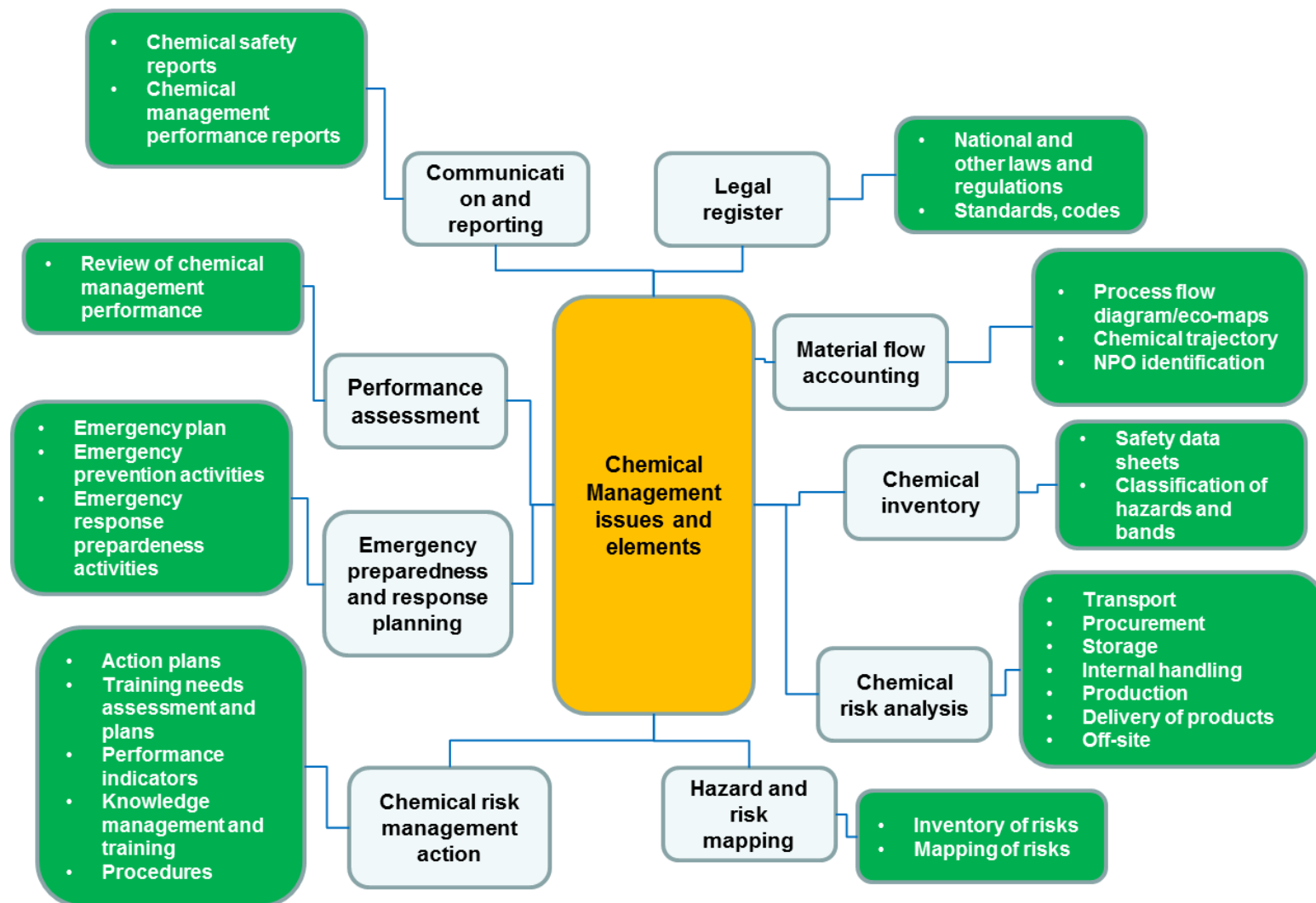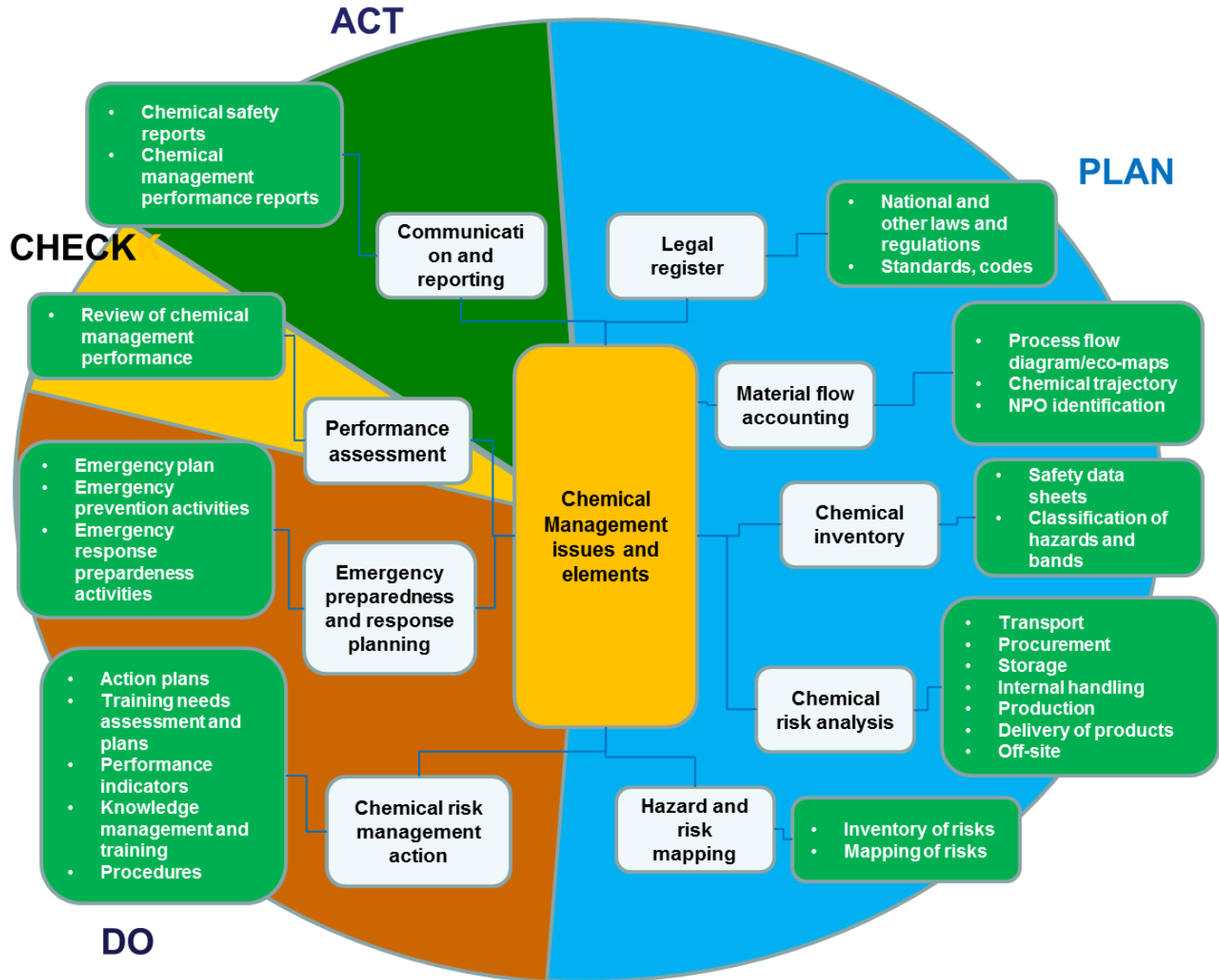
- Further references

Chemical Management System
Setting the framework

ACT

PLAN

CHECK

DO

5. Management Review

1. Commitment to CMS
2. Assessment, Planning and Prioritisation

4. Monitoring

3. Chemicals Management

Areas of attention

Chemical Management issues and elements

- Chemical safety reports
- Chemical management performance reports

Communication and reporting

Legal register

- National and other laws and regulations
- Standards, codes

- Review of chemical management performance

Performance assessment

Material flow accounting

- Process flow diagram/eco-maps
- Chemical trajectory
- NPO identification

- Emergency plan
- Emergency prevention activities
- Emergency response preparedness activities

Emergency preparedness and response planning

Chemical inventory

- Safety data sheets
- Classification of hazards and bands

- Action plans
- Training needs assessment and plans
- Performance indicators
- Knowledge management and training
- Procedures

Chemical risk management action

Chemical risk analysis

- Transport
- Procurement
- Storage
- Internal handling
- Production
- Delivery of products
- Off-site

Hazard and risk mapping

- Inventory of risks
- Mapping of risks

Areas of attention

Resource Efficient Management of Chemicals (REMC)

1. Commitment to CMS

2. Assessment, Planning and Prioritisation

CMS - PLAN

1. Commitment to CMS

1.1   Management Policy Statement

1.2   Statement indicating where the CMS is applicable

2. Assessment, Planning and Prioritization

1. Commitment to CMS

2. Assessment, Planning and Prioritisation

    2.1   Systematically identify and document chemicals used and stored

    2.2   Regulatory Assessment

    2.3   Procurement / Supplier Practices

    2.4   Chemical Risk Assessment

    2.5   Chemicals and Processes of Concern

    2.6   Performance Goals and Action Plans

CMS - PLAN

1. Commitment to CMS

2. Assessment, Planning and Prioritisation

  2.1 Systematically identify and document chemicals used and stored
  - Factory Plan
  - Chemical material flow diagrams
  - Chemical inventory
  - Chemical process control documents
  - Accurate chemical inventory using mass balance
  - Chemical discharge with Hazardous Identification

  2.2 Regulatory Assessment
  2.3 Procurement/Supplier Practices
  2.4 Chemical Risk Assessment
  2.5 Chemicals and Processes of Concern
  2.6 Performance Goals and Action Plans

CMS - PLAN

1. Commitment to CMS

2. Assessment, Planning and Prioritisation

  2.1 Systematically identify and document chemicals used and stored

  2.2 Regulatory Assessment

  - Regulatory monitoring SOP and legal requirement permits inventory

  2.3 Procurement/Supplier Practices

  2.4 Chemical Risk Assessment

  2.5 Chemicals and Processes of Concern

  2.6 Performance Goals and Action Plans

CMS - PLAN

1. Commitment to CMS

2. Assessment, Planning and Prioritisation

   2.1 Systematically identify and document chemicals used and stored

   2.2 Regulatory Assessment

   2.3 Procurement/Supplier Practices

- Chemical purchasing policy considerations
- Identify chemical suppliers (listed in inventory)
- Supplier approval/removal process (e.g. SOP)

   2.4 Chemical Risk Assessment

   2.5 Chemicals and Processes of Concern

   2.6 Performance Goals and Action Plans

CMS - PLAN

1. Commitment to CMS

2. Assessment, Planning and Prioritisation

2.1 Systematically identify and document chemicals used and stored

2.2 Regulatory Assessment

2.3 Procurement/ Supplier Practices

2.4 Chemical Risk Assessment

2.5 Chemicals and Processes of Concern

- Identify gaps and losses in current processes (e.g. hotspots)
- RSL and MRSL process (e.g. process for verifying compliance, update and maintenance, integration of suppliers)

2.6 Performance Goals and Action Plans

CMS - DO

3. Chemical Management

3.1 Organisational Structure

3.2 Training

3.3 Document Development

3.4 Document and Record Control

3.5 Chemical Management Work Practices

3.6 Emergency Procedures

CMS - DO

3. Chemical Management

3.1 Organisational Structure

- Roles and responsibilities (CMS organisational chart)
- Communication (procedures, warning signs, access limitations e.g. access and distribution of SDS)

3.2 Training

3.3 Document Development

3.4 Document and Record Control

3.5 Chemical Management Work Practices

3.6 Emergency Procedures

CMS - DO

3. Chemical Management

3.1 Organisational Structure

3.2 Training

3.3 Document Development

- CMS manual

3.4 Document and Record Control

3.5 Chemical Management Work Practices

3.6 Emergency Procedures

CMS - DO

3. Chemical Management

3.1 Organisational Structure

3.2 Training

3.3 Document Development

3.4 Document and Record Control

3.5 Chemical Management Work Practices

- Exposure control measures
- Safety data sheet management (procedure for making SDS available)
- Chemical handling (procdure for SOP development, format)
- Chemical storage
- Chemical transportation
- Chemical use – Regular and optimization
- Personal protective equipment (procedures for selection, use, maintenance)
- Laboratory practices
- Maintenance and housekeeping
- Waste and disposal

3.6 Emergency Procedures

CMS - CHECK

4. Monitoring

4.1 Monitor and measurements

4.2 Internal auditing

4.3 External auditing

4.4 Change management and corrective action

CMS - CHECK

4. Monitoring

4.1 Monitor and measurements

- Process for monitoring goal progress (e.g. milestones, implementation of action plans)
- Progress in meeting regulatory and other requirements
- Organising internal inspections and recording results

4.2 Internal auditing

4.3 External auditing

4.4 Change management and corrective action

CMS - CHECK

4. Monitoring

4.1 Monitor and measurements

4.2 Internal auditing

- ZDHC or other audit checklist
- Audit protocol as per HiGG 3.0

4.3 External auditing

- ZDHC or other audit checklist
- Audit protocol as per HiGG 3.0

4.4 Change management and corrective action

CMS - CHECK

4. Monitoring

4.1 Monitor and measurements

4.2 Internal auditing

4.3 External auditing

4.4 Change management and corrective action

- Procedure for Change Management and Corrective Action

CMS - ACT

5. Management Review

5.1 Disclosure of substances in use

5.2 Stakeholder review

5.3 Management review

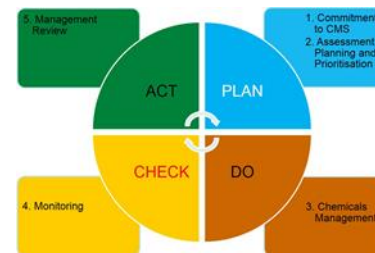# 5. Management Review

5.1 Disclosure of substances in use

- Establish, document and implement a process for disclosing the substances in use.

5.2 Stakeholder review

5.3 Management review

Practical tips

Reference material

ZDHC CMS Guidance Manual www.roadmaptozero.com

Content:

- ZDHC CMS requirements with further explanations
- Appendixes
  - CMS references
  - Assessment checklists
  - Chemical inventory template
  - Risk assessment template

Practical tips

Chemical Management System
Setting the framework

Want to know where you stand?

- Use checklists in ZDHC CMS Guidance manual appendix A

- Refer to ZDHC audit protocol (aligned with Higgs Index assessment tool of Sustainable Apparel Coalition since Nov 2016) http://apparelcoalition.org/the-higg-index/