



**Sustainable Leather Foundation
Standard for Chemical Control**

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CHEMICAL CONTROL STANDARD AND BENCHMARK

Summary: The SLF Chemical Storage standard provides the context, audit of facility Chemical Storage, and provides the facility under audit the methodology to analyse and report their Chemical Storage to an interested party ensuring the reporting of Chemical Management, and such that the governance of the facility can be compared to global levels and to other facilities of similar size and type.



1. Scope

Král and Niedźwiedz (2021) is currently one of the most comprehensive and definitive documents advising the correct and safe handling and storage of chemicals. To achieve the highest degree of health and safety in relation to chemical handling, movement, and storage, the UNIDO guide informs the SLF Standard on Chemical Storage.

The principle of effective health and safety in relation to chemical handling and storage arise from the following foundations: knowledge on chemical information, effective labelling using the global harmonised system (GHS) (together with the other global chemical, labelling, and packaging regulations), chemical storage (including samples), and the compatibility between chemicals stored in one confined area.

The Scope of this Audit Standard includes the facility and any of their sub-contractors. The method and definition of Chemical Storage for all facilities in the leather value chain is included in this Standard. The facilities in the value chain include all facilities from the farm to the end-of-life of the leather.

The Standard on Chemical Storage also includes the facilities (including their sub-contractors, and waste handling/treatment vendors) on their properties within Scope. The Chemical Storage in question is only related to the Scope of the SLF audit (or mapped certification) that is being audited. The Scope of the Chemical Storage Standard does not include indirect activities that are related to the preparation of inputs - that are then used on the site (included within the Scope of the audit).

2. Normative references

The following referenced documents are useful in the understanding of this document and are provided for further guidance. In the case of dispute these references form the core of the evidence in support of the Standard and Benchmarks used here:

Král, I. and Niedźwiedz, N. (2021) Occupational safety and health aspects of leather manufacturing (2 ed.) United Nations Industry Development Organisation (UNIDO), Vienna, Austria. (see <http://www.leatherpanel.org/content/occupational-safety-and-health-aspects-leather-manufacture-2nd-edition-2021>)

Health and Safety Executive (2021) A safe place of work. Online. (Available at: <https://www.hse.gov.uk/toolbox/workplace/facilities.htm>). Accessed on 8 July 2021.

SLF (2021) *SLF Audit Standard v 0.9*. Sustainable Leather Foundation, Northampton, United Kingdom.

3. Terms and definitions

CLP – the EU’s Classification, Labelling, and Packaging (EU Regulation 1272/2008) that aligns with the GHS.

Facility – the facility being audited against this Standard. If the facility subcontracts to one or more third party, then the benchmarks found in this Standard will be used to judge the OHS infrastructure of those third parties.

GHS – the globalised harmonised system of classification, labelling, and packaging (see <https://unece.org/about-ghs>).



OHS – occupational health and safety, the practices that ensure that workers in a facility are kept in good health and are supported in ensuring their personal safety is maintained. The corporate responsibility for safety supports the primary responsibility that the individual has for their own safety.

4. Principle

4.1 Safety Data Sheets and chemical information (SDS)

Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) is a European Union regulation that was introduced to ensure that the information that workers had on the safe handling, storage, and movement of chemicals was as accurate as possible. Prior to REACH, the GHS system and its predecessors made use of a material safety data sheet (SDS) system that tried to ensure that people using chemicals had the best available information. Modern labelling and SDS systems use the Chemical Abstract Service (CAS) or European Community (EC) numbers to help identify hazardous chemicals used in formulations.

The SDS helps a worker identify handling, human toxicity, firefighting, disposal implications and environmental toxicity issues. A modern SDS will help with the classification of chemicals as either hazardous or not classified.

4.2 Labelling and GHS/CLP compliance

All chemicals that are present in the facility must be in a container (fit for purpose) and should have a label identifying that chemical, beyond just a proprietary name. The use of abbreviations, poor marking, or labels that are obscured by chemical run marks are classified as poor practice and if identified as such should be relabelled.

The chemical label should include information such as the GHS pictogram(s) that help the user of that chemical to decide what personal protective equipment should be used and what health and safety considerations should be made when handling and storing the chemical. Wherever possible the health and safety considerations should be simplified and possibly translated into local languages or dialects.

4.3 Sample and packaged chemical storage

Packaged chemicals (chemicals that are large in size and packed ready for industrial-scale use) can be stored on a concrete floor in a manner that allows easy searching and access and prevents any chemical spills from contaminating the underlying soil. If the chemicals are stored on racking the shelves should be able to withstand the weight of the chemicals that they are designed to store. The safety assessment of the shelves should be made with reference to normal storage conditions (to include safety factors) and during emergency situations, e.g., fire, flooding, or earthquake. SLF is not suggesting that facilities build shelving that withstands earthquakes, but it is suggesting that in the case of extreme events the type of shelving and storage density should minimise the environmental and social impacts of chemicals when the chemicals are disrupted.

The storage of sample chemicals should be made in the same manner as the packaged chemicals mentioned above. Sample chemicals are defined as a small quantity of chemical that has been placed into a smaller volume container, either by the original chemical supplier (or the facility) for purposes of testing or for more convenient weighing out of small quantities – with easy identification and safe handling being the highest priority.



In the event of a chemical spill, individually or *en masse*, the storage facilities should be able to contain the spill of liquid chemicals through temporary or permanent bunding or using spill channels and sumps. The aperture on the grating (covering spill channels) and depth of channel should be able to handle the largest spill the quantity of chemicals the area can provide. The volume of the spill sump should be able to handle all the liquid present in the storage area. The spill sump or permanent bunding should not be designed to hold chemistry from incompatible chemical classes.

4.4 Chemical storage compatibility

Chemicals of different chemical classifications can be compatible in their arrangement or can be incompatible. Facilities must use chemical compatibility matrices, that are accessible to determine which chemicals can be arranged together and which ones cannot. In most cases all chemicals used have a designated location indicated by the safety manager (or similar) of the facility. The safety manager should also determine which chemicals are compatible and what is the maximum capacity of the storage location.

Normally, chemical best practice discourages the storage of intermediate bulk containers (IBC), with an approximate weight of 1000 kg each, from being stacked higher than three high. As the number of containers increases the supporting weight the lower containers must carry increases which can result in rupture. It is regarded as best practice that powdered chemicals are always stored above liquid chemicals to prevent leaking liquids from landing on powders.

5. Procedure and benchmark

5.1 Safety Data Sheets and chemical information

- 5.1.1 The audit of the facility should consider evidence that the appropriate SDS for all hazardous chemicals are present and available for responsible personnel in the department in which those chemicals are being used.
- 5.1.2 The Standard encourages the use safety cards (or working cards) that the company safety manager (or similar) creates that indicates which precautionary measures are used for a specific chemical (e.g., which gloves, which type of dust mask, where to store).
- 5.1.3 The facility should train specialist chemical handling and storage personnel on how to read the SDS and how to act on the information that they read within that SDS. Together with the manager, these personnel will write the safety cards described in Clause 5.1.2.

5.2 Labelling and GHS/CLP compliance

- 5.2.1 The audit of the facility should consider evidence that all packaged chemicals are labelled clearly with their name and a compliant GHS pictogram(s) – could be an empty pictogram (or none) if not classified. If it is unclear what the GHS pictogram hazard is showing the specific hazard could be labelled. Signage on the walls where the chemicals are being handled should indicate what those pictograms are and how to handle them in normal and in emergency situations.
- 5.2.2 Sample chemicals should have the same treatment as given in Clause 5.2.1.
- 5.2.3 Unlabelled chemicals should be quarantined in a designated area until they can be labelled correctly.

5.3 Sample and packaged chemical storage

- 5.3.1 The audit of the facility should consider evidence that chemicals are being stored correctly after considering the following criteria:
 - 5.3.1.1 Rack integrity (including vehicle protection)
 - 5.3.1.2 Storage height
 - 5.3.1.3 Storage weight
 - 5.3.1.4 Labelling
 - 5.3.1.5 Liquid/powder storage positions
 - 5.3.1.6 Spill considerations
 - 5.3.1.7 Chemical access



- 5.3.1.8 The audit of the facility should consider evidence that shows the facility makes use of chemical compatibility matrices
- 5.3.1.9 The auditor should find no evidence that the advice given in compatibility matrices are being ignored.

6. Diagnostic parameters

- 6.1 Safety Data Sheets and chemical information
 - 6.1.1 Access to the facility chemical information by the auditor must be at the same level of access as it is for designated personnel who need to use that information. Examination of the area, by the auditor, should be able to satisfy the following questions:
 - 6.1.1.1 Are all chemicals represented by a safety card or work instruction in the area where that chemical is being used or stored?
 - 6.1.1.2 Does the management (or designated personnel) have an appropriate copy of the SDS for all chemicals that are used in the factory that is used to guide the information required in Clause 6.1.1.1
 - 6.1.1.3 Is the SDS linked to a procedure for correct handling/storage in normal and emergency situations?
- 6.2 Labelling and GHS/CLP compliance
 - 6.2.1 Examination of the area by the auditor should be able to satisfy the following questions:
 - 6.2.1.1 Were all chemicals found to be labelled with the correct name and compliance with GHS pictogram labelling (could be an empty pictogram or none if not classified under GHS labelling)?
 - 6.2.1.2 Was a quarantine area identified that included chemicals with no label or GHS compliance?
- 6.3 Sample and packaged chemical storage
 - 6.3.1 Examination of the area by the auditor should be able to satisfy the following questions on the items identified in Clause 5.3.1:
 - 6.3.1.1 Was the racking/shelving fit for purpose to meet the requirements listed in Clause 5.3.1?
 - 6.3.1.2 Was it easy to identify chemical labels and is it easy to gain access to chemicals without having to unreasonably move other chemicals out the way?
 - 6.3.1.3 Were sample chemicals labelled and stored in the same way as packaged chemicals?
 - 6.3.1.4 Was the arrangement of the chemicals such that the requirements listed in Clause 5.3.1 meant the chemicals were stored safely and correctly?
 - 6.3.1.5 Was the arrangement of the chemicals such that the requirements listed in Clause 5.3.1.8 meant the chemicals were stored safely and correctly according to a compatibility matrix? Sample chemicals could be exempted at low quantities (unless a risk assessment proves otherwise), but as soon as that chemical has been accepted for production the compatibility rules will apply. Storage of old sample chemicals awaiting disposal should be mindful of compatibility rules.



7. Report

The test report for Chemical Storage is the latest digital or printed report that shows:

1. A reference to this Sustainable Leather Foundation Standard (i.e., FSG8.2: 2021)
2. The Chemical Storage findings giving the conformance/non-conformances in the following areas:
 - a. Safety Data Sheets and chemical information
 - b. Labelling and GHS/CLP compliance
 - c. Sample and bulk chemical storage
 - d. Chemical storage compatibility
3. Whether the number of non-conformances (major/minor) constitute an overall non-conformance that would prevent the facility passing the Chemical Storage governance element.

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