

Fact-sheet - How to store the chemicals? Part I



What is the objective?

Why the factory should follow specific requirements for a proper and safe storage of chemicals?

- To prevent and mitigate the risk of incidents (chemical spill, incompatible chemicals reactions, fire, etc.);
- To reduce and control the workers exposure to chemical hazards (vapors, fumes, toxic dust, etc.);
- To keep the chemicals in good conditions and avoid a waste or deterioration of chemicals.

To store the chemicals in safe conditions, this first fact-sheet will focus on three major requirements:

Dedicated & designated area

Restricted access

Ventilation



How to achieve this objective?

Step 1: Make sure all the chemicals are stored in **designated storage area(s)** that are only dedicated for that use.

- All chemicals are stored in the stores and no chemical stock is found outside these areas;
- In the storage area, only chemicals should be stored and no other material such as raw material, machines, etc.
- The area should be out of direct sunlight and away from any possible heat or ignition source*;

Step 2: Restrict the access to the chemical store(s) to only authorized personnel:

- Only trained workers with tasks related to the use and storage of chemicals should have access to the store;
- The entrance of the store should be restricted: door locked, list of authorized persons to enter posted, etc.



Step 3: Provide adequate ventilation installing exhaust fans, circular vents, etc.

The ventilation system is important, especially, for flammable, corrosive and toxic products, to exert fumes to the outside atmosphere, to disperse corrosive gases or mists and to ensure that the concentration of any toxic substance is as low as possible.

*In particular, no electrical equipment neither electrical connection should be present in the chemical store. Portable fire extinguishers should be positioned just outside the entrance to flammable storage areas. Fan motors and ventilation equipment motors must be non-sparking.



Common non-compliances

Chemical stored in open air

If the chemical store is too small, the factory might store chemicals outside the buildings. The heat from the exposure to the sunlight can accelerate the deterioration of a chemical quality:



No restricted access to the store

There is no door between the production section and the chemical store so any worker can have access to this restricted area and be exposed to chemical hazards:



Exhaust fan not working

The factory has installed exhaust fans in the chemical store but they are not working (not switched on or because of a poor maintenance). There is a lack of inspection of the chemical storage conditions:

