

Storage of chemicals

Training tool for safety instructions



Notes

Topic:

This safety instruction points out aspects of safe storage of chemicals. This issue doesn't just affect chemicals companies. After all, chemicals include the paints and coatings used by decorating businesses, the oils, solvents and diluting agents used in repair shops, the foams and paint strippers used in construction, the coolants used in the metal industry, and the cleaning and disinfection products used in almost all companies.

This safety instruction focuses on the key points of safe storage – clearly, hazardous substances must not be stored by simply stacking bags, containers or IBCs (intermediate bulk containers) in an unused corner of a company site.

In addition to the basic requirements for occupational safety, further regulations must also be complied with in line with the particular hazard characteristics of the chemicals. In general, the requirements for storing hazardous substances are dependent on volume and are set out and monitored by the person responsible for storage.

Storage safety begins with choosing the right location. Also, the content of the containers must always be identifiable (Lesson 1).

Storage area regulations also include compliance with any bans on storing particular chemicals together (Lesson 2) and restrictions on stacking heights and weight loads (Lesson 3).

Ensuring occupational safety also depends on appropriate conduct in the storage area during normal operations (Lesson 4) and when leaks or emergencies occur (Lesson 5).

Further information on this topic is available in the ISSA Chemistry Section's ["Storage of Chemicals" brochure](#).

Method:

This training tool is not to be used for E-learning. The set of slides is intended to assist managers for the personal instruction of employees and to start an open discussion on the topic of occupational safety.

Text and images included in the lessons provide information on which aspects are most important to the topic. Using this as a basis, discussions should be held on whether and where similar issues occur at the company in question, which specific technical and organisational measures are already in place, and which solutions could improve the situation. Safety instructions can thus be used not just to fulfil legal requirements but also as a tool for promoting ongoing improvement within the company.

Analysing thematically related events and "near misses" at the company (or other incidents known of from literature) can help the staff involved become aware of the relevance of the topic and thus encourage safety-conscious conduct for the long term. This may require further preparation and/or research.

Also included is a picture that can be used to check what has been learned. This can be carried out either with the whole group straight after the training session using the solution slides, as an independent follow-up activity with the solutions revealed at a later stage, or as part of an in-house (safety-themed) event, possibly with prizes.

The content of the safety courses is always focused on the staff involved. They therefore do not include information on measures to be undertaken by the employer.



Lesson 1

Placing and storing safely

- Keep transport and escape routes free
- Always store in closed containers
- Store in original packing whenever possible
- Content has to be identifiable





Lesson 2

Mixed storage

- Observe mixed storage prohibitions
- Keep small quantities in safety cabinets
- Pay attention to explosion hazard of residual solvents





Lesson 3

Shelves and stacks

- Provide safe access
- Observe permitted shelf and surface area load
- Do not exceed stacking height
- Report damages to shelves





Lesson 4

Behavior in the warehouse

- Use personal protective equipment
- Keep the facility tidy and clean
- Do not smoke, eat or drink
- Observe separate travel paths
- Avoid ignition sources





Lesson 5

Behavior in case of leakage and emergency

- Observe the emergency plan
- Report leakages
- Use personal protective equipment





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INTERNATIONAL SOCIAL SECURITY ASSOCIATION

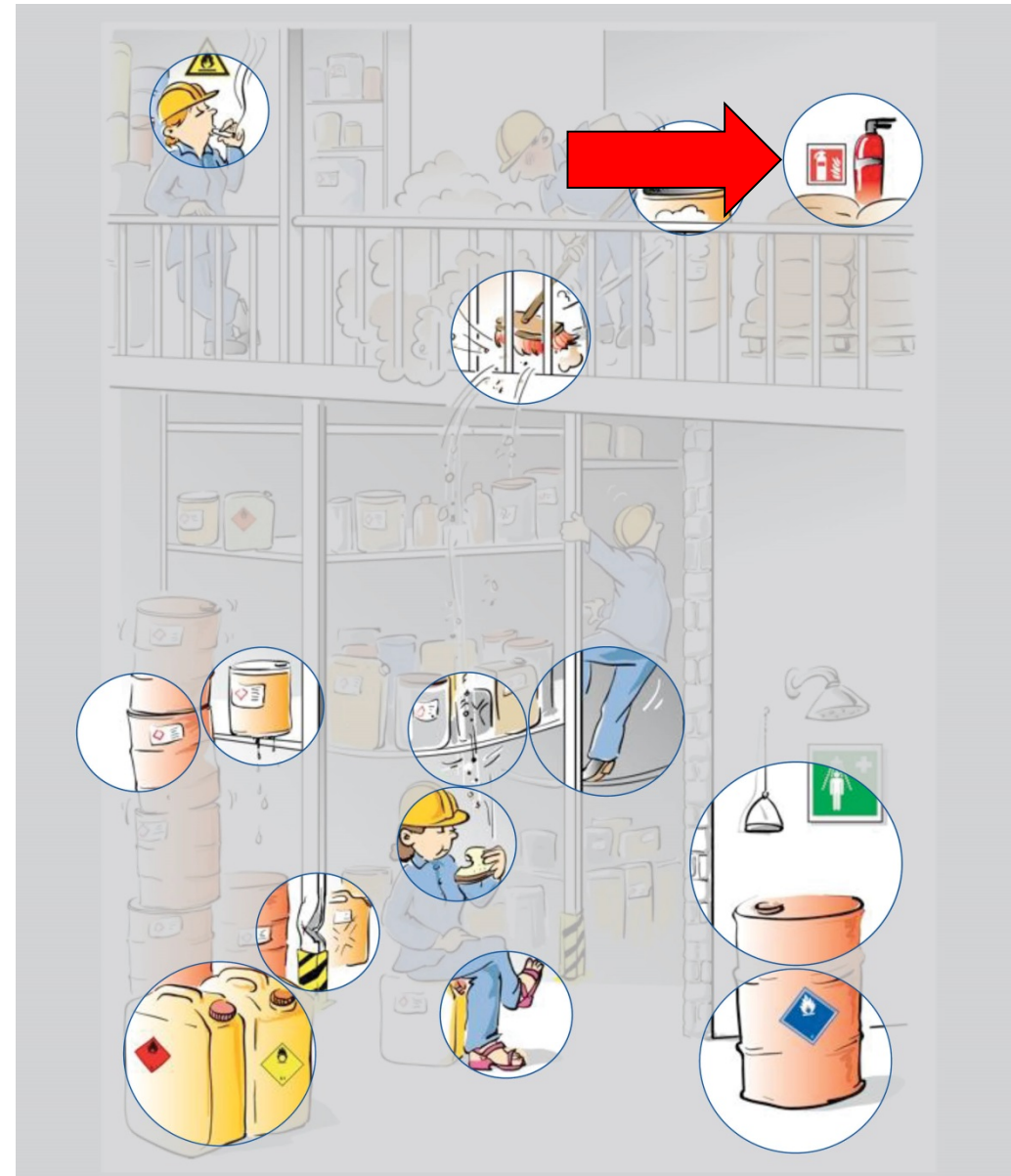
Section on Prevention in the Chemical Industry

What's wrong? Find the fourteen mistakes



Mistake 3

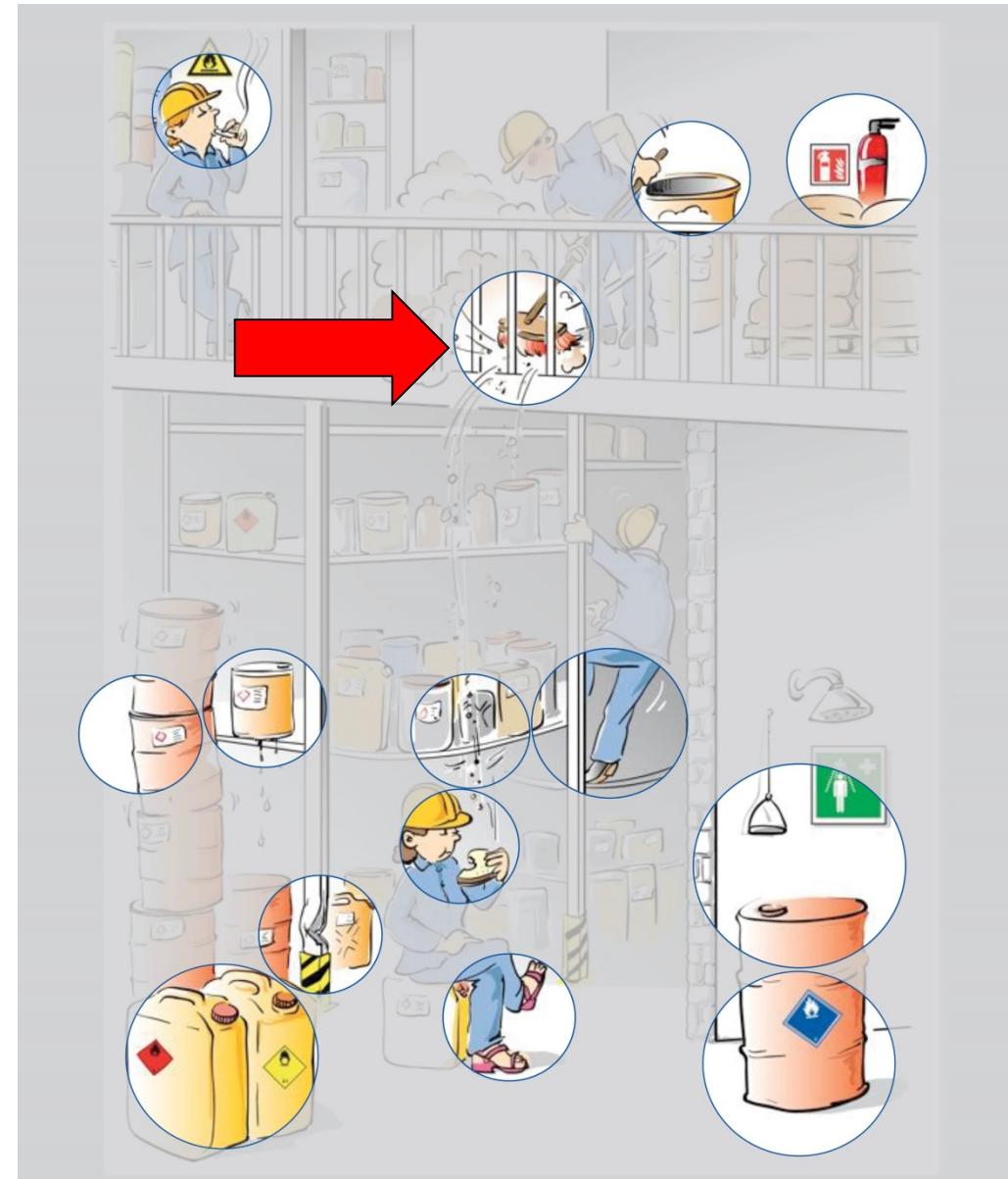
Ensure access to fire extinguishing equipment





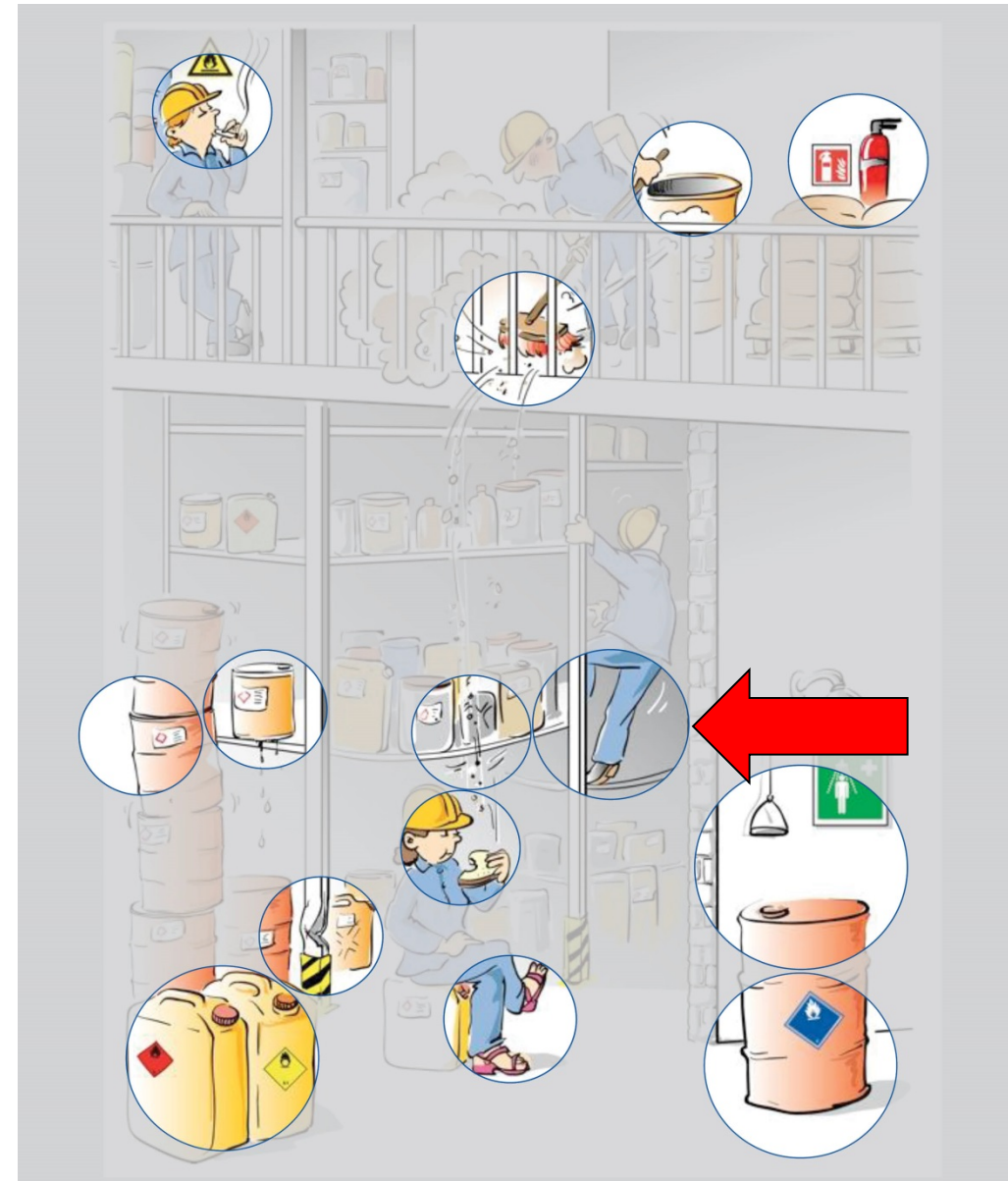
Mistake 4

Remove dust deposits by means of vacuum cleaners or vacuum sweepers



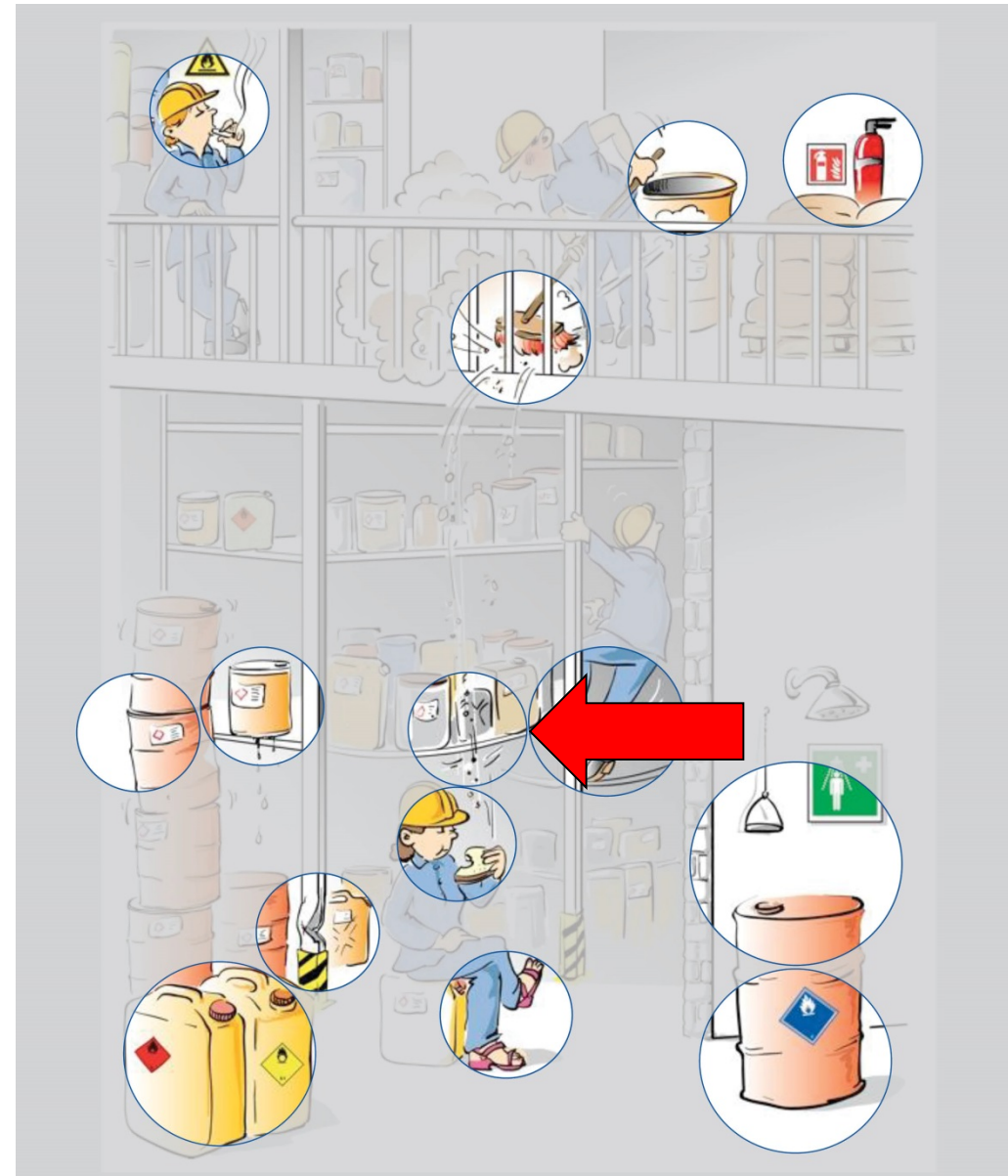
Mistake 5

Use appropriate climbing assistance



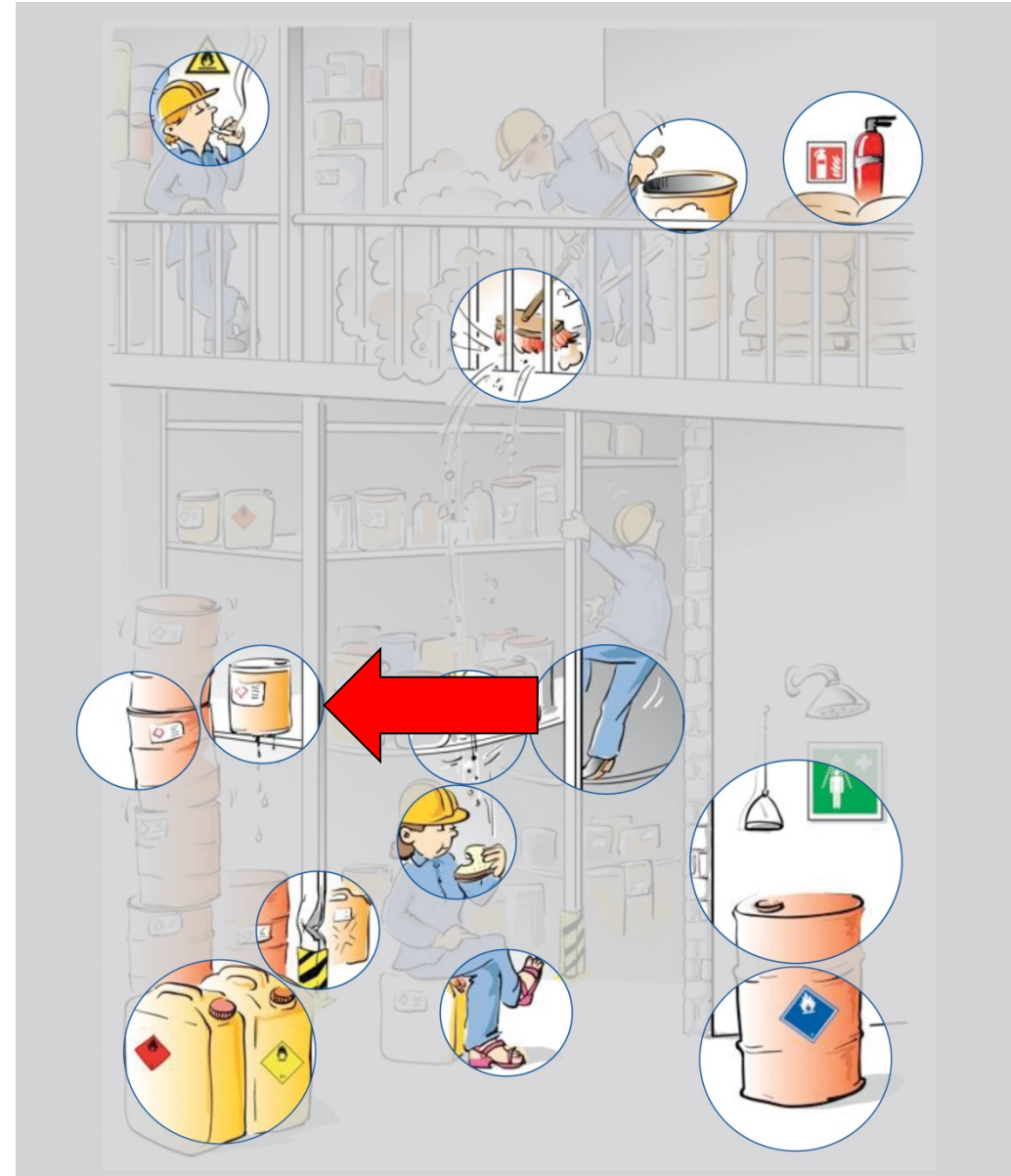
Mistake 6

Observe permitted shelf loads



Mistake 7

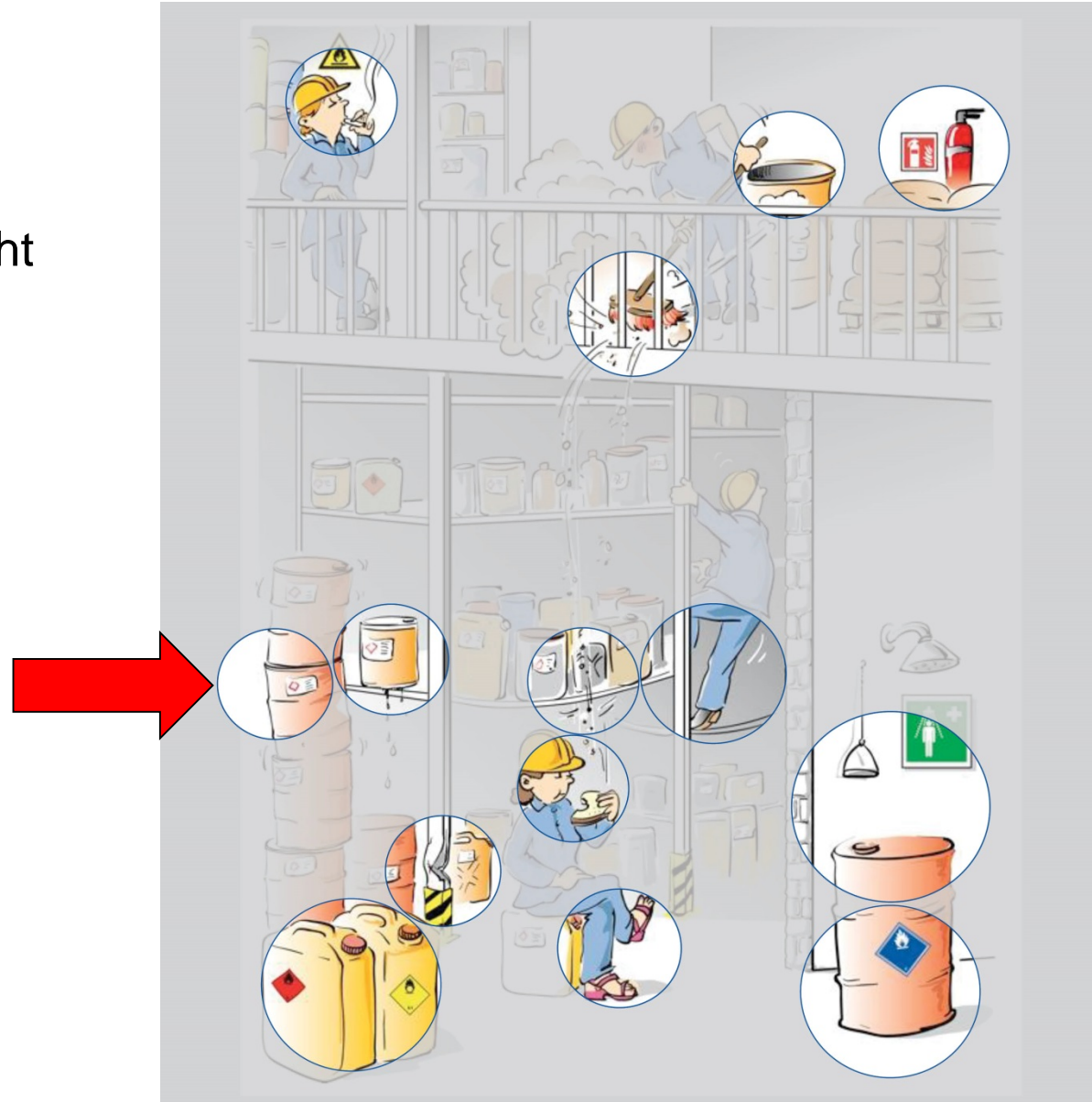
Secure damaged packaging





Mistake 8

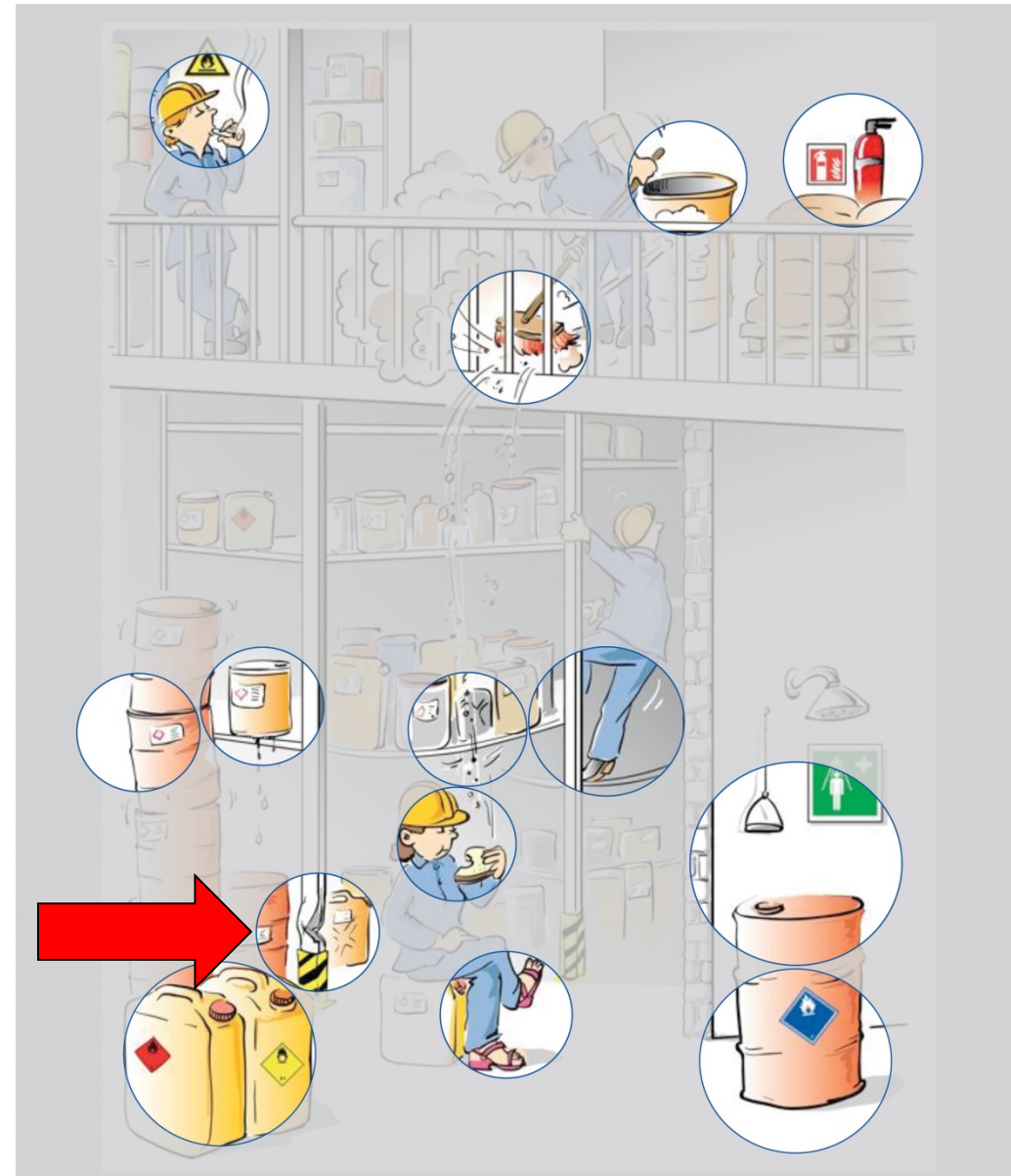
Do not exceed maximum stacking height





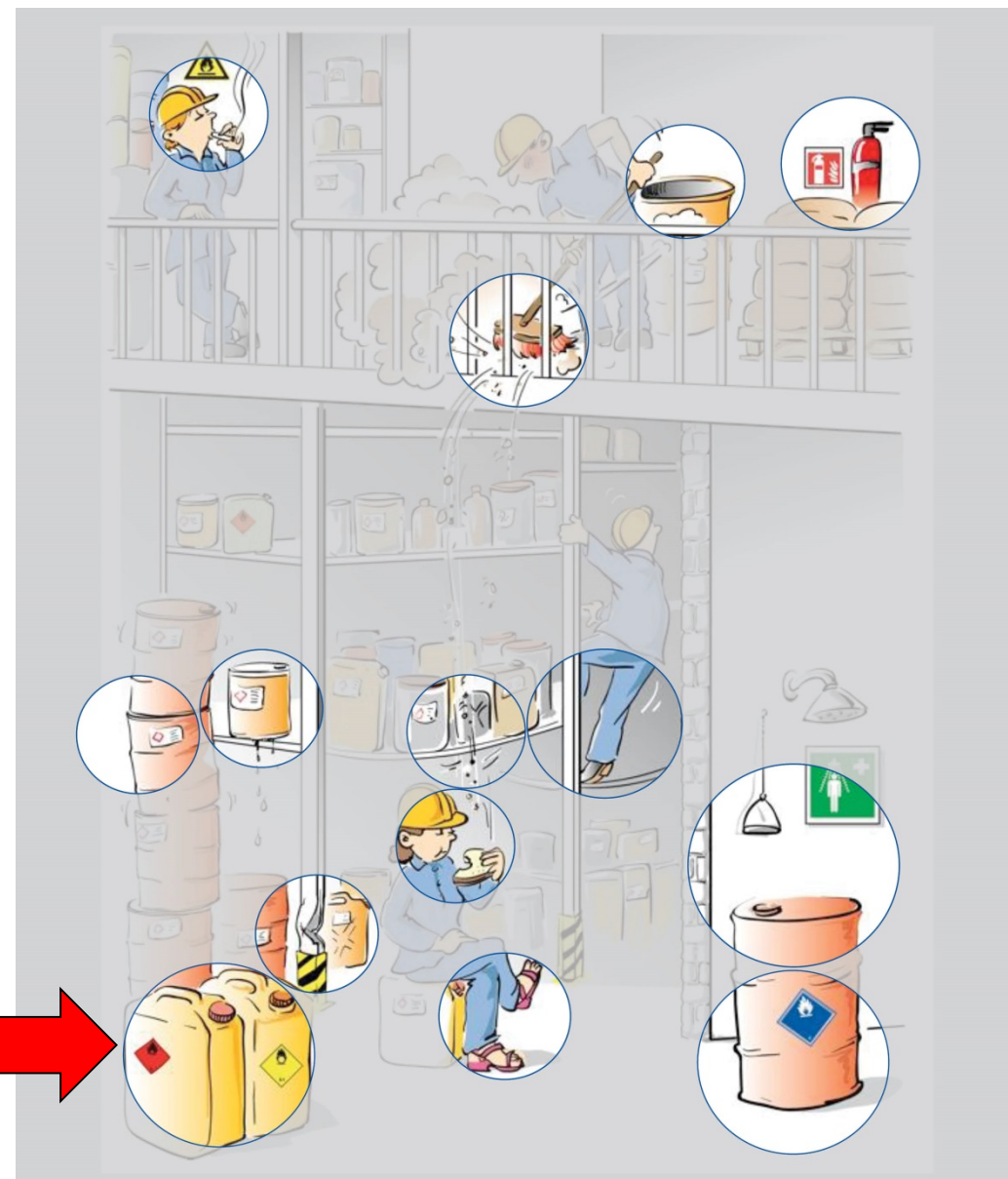
Mistake 9

Report damages immediately



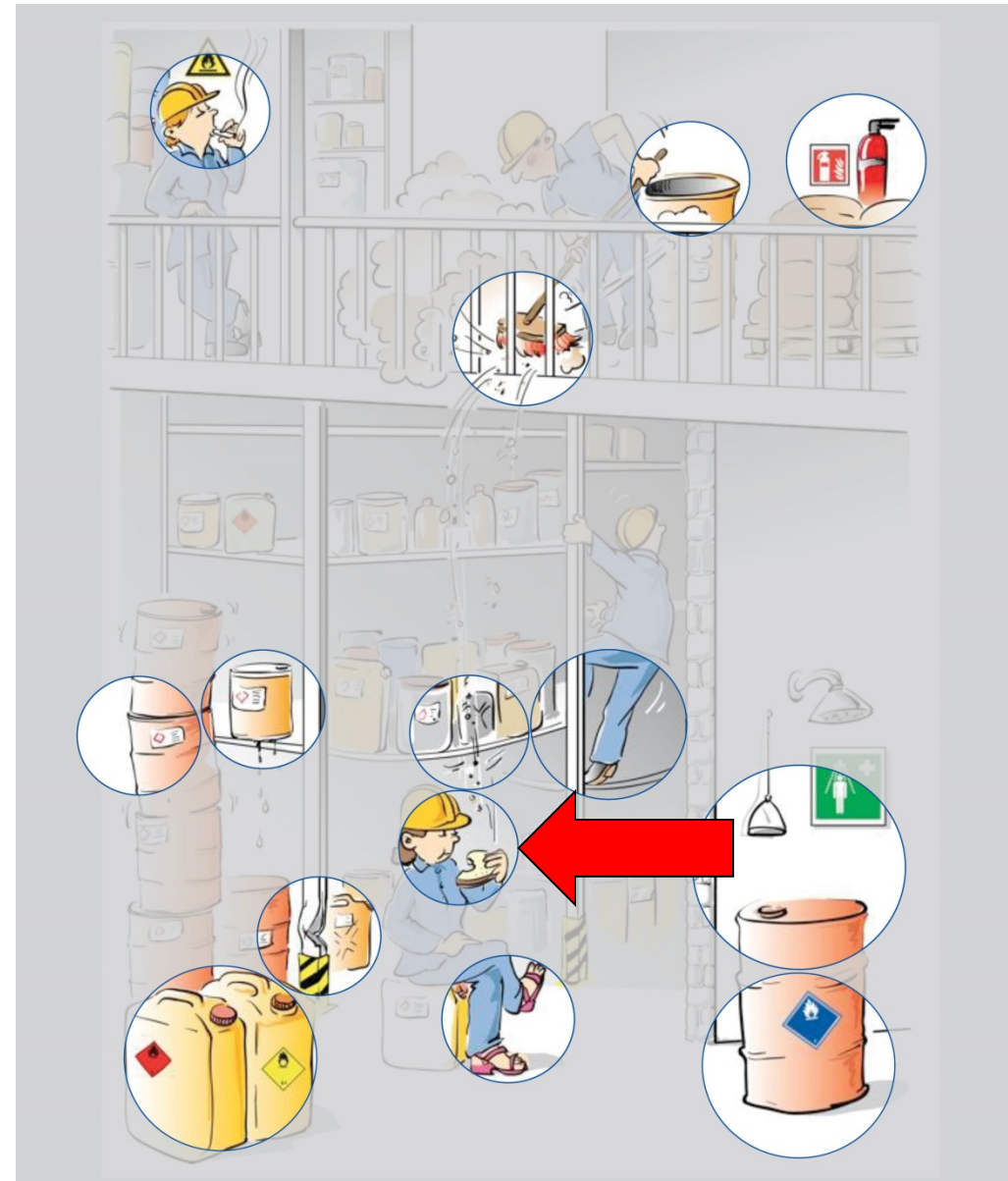
Mistake 10

Observe mixed storage prohibitions



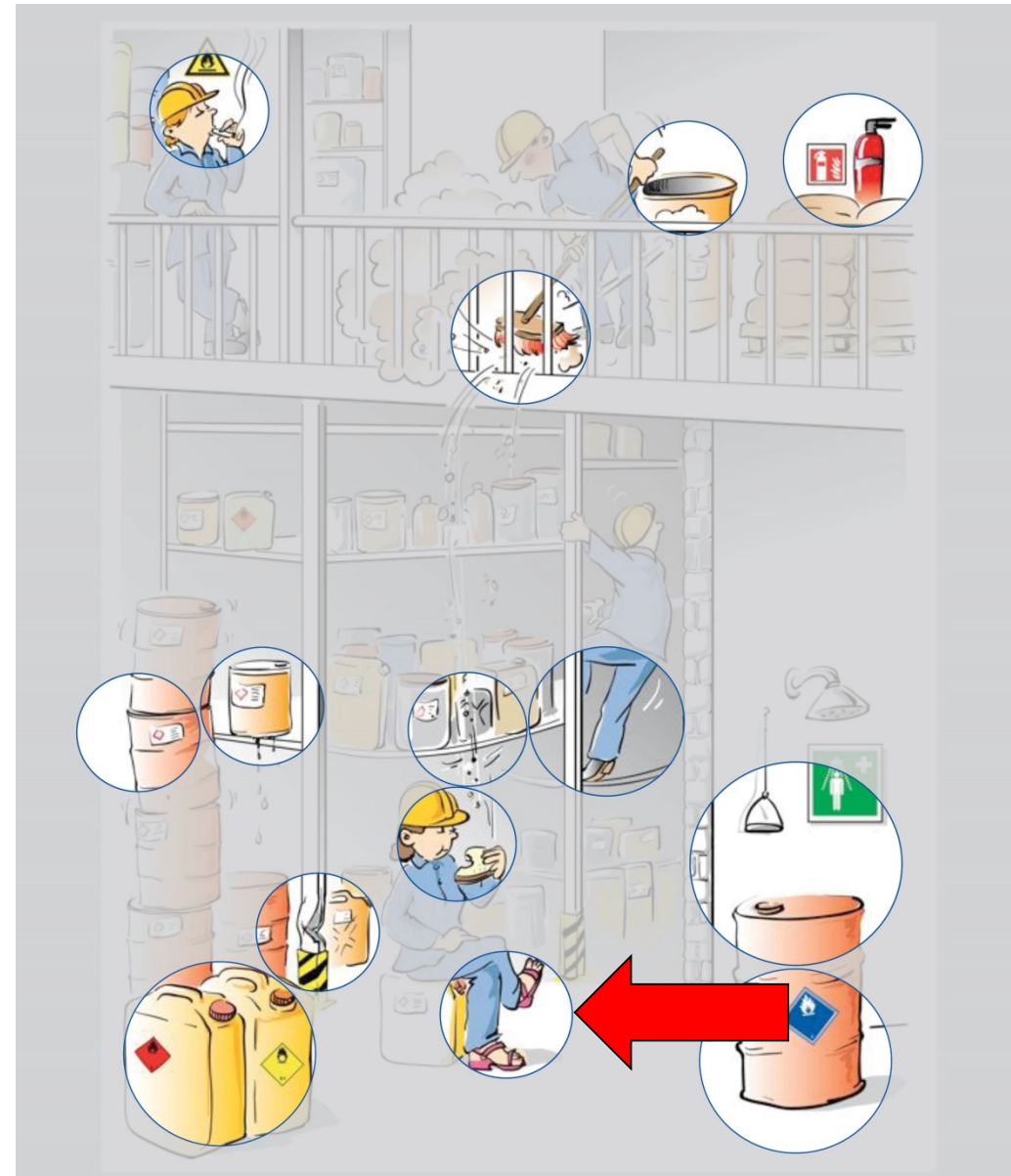
Mistake 11

Do not eat or drink in the warehouse area



Mistake 12

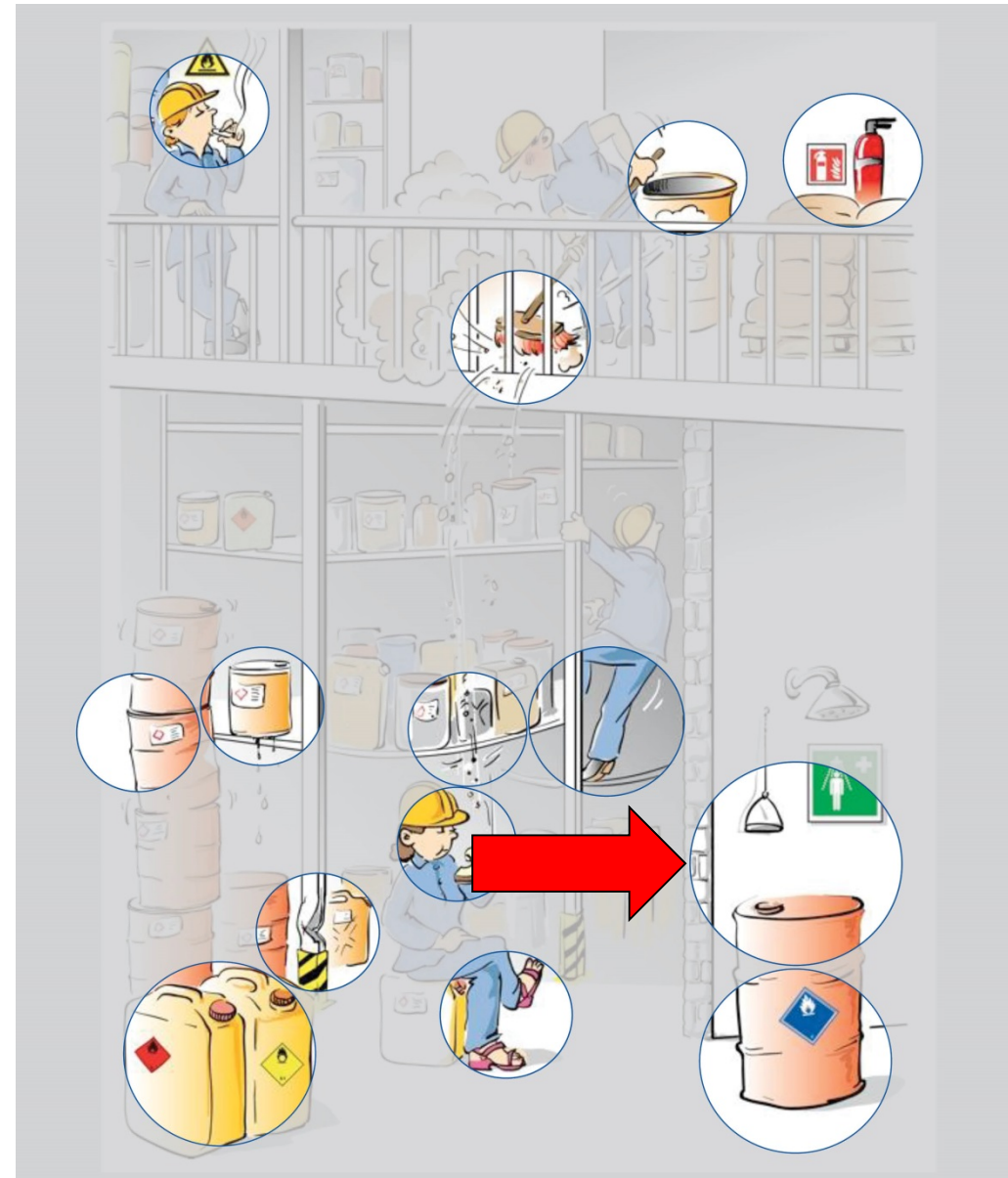
Wear safety shoes





Mistake 13

Ensure access to safety shower





Mistake 14

Store materials that react with water in a dry place

