Safety in warehouses

Warehouses, large or small, can be hazardous places. The following details highlight some of the risks that might exist in your workplace and the steps you can take to prevent accidents.

Main types of hazard

Managing the risk

Storage and racking

Incorrectly stacked goods may fall, injuring staff below.

Overloading of shelves / racks may lead to collapse.

Unsafe methods of stacking or retrieval of goods may lead to falls, for e.g. persons climbing on racking, being raised on forks on lift trucks (FLTs) or using unsuitable ladders.

- Stack goods securely on shelves or racking, with the heaviest item at the bottom
- Ensure racking is capable of supporting the loads and is properly secured (e.g. bolted to the floor)
- Ensure racking is properly maintained and is protected against mechanical damage from FLTs, etc.
- Regularly inspect pallets used for storage and remove damaged ones immediately
- Organise racking in aisles to allow for safe access to goods, movement of FLTs, etc.
- Train staff in safe methods of stacking and retrieval
- For manual access, provide proper safety ladders and inspect for damage regularly
- If using FLTs to access goods, ensure that goods are stacked and retrieved in pallets, or that a safety cage is provided for hand picking. Never allow anyone to stand on the forks of a FLT
- Consider the use of safety footwear and hard hats

Vehicular movement

The movement of delivery vehicles and FLTs around warehouses accounts for a large proportion of accidents, for e.g. collision with people, collision with other vehicles and overturning of FLTs.

- Try to separate vehicles and people, e.g. by using clearly marked, well planned traffic routes both indoors and externally
- Devise one-way traffic systems
- For vehicles likely to be reversing in close proximity to people, fit warning lights and audible alarms
- Properly train and authorise all drivers
- Issue sufficient information and instruction to visiting drivers
- Restrict access to dangerous areas such as loading / unloading bays
- Ensure surfaces over which vehicles are driven are even
- Check vehicles regularly and ensure they are properly maintained
- Ensure FLTs are not overloaded (see safe working load)

Slips, trips and falls

Uneven, slippery or obstructed floor surfaces, trailing cables and poor general housekeeping may lead to accidents.

- Keep passageways, stairs and delivery areas clear
- Dispose of loose packaging and bindings properly
- Clean up spillages immediately and display warning notices
- Fasten cables securely to the floor or re-route overhead if possible

Main types of hazard	Managing the risk
Loading and unloading Accidents have occurred due to loading and unloading, e.g. vehicles prematurely moving away from loading bays or areas, causing FLTs or people to fall, badly designed or improperly used dock levellers and tail lifts, improperly loaded vehicles and unsafe methods for retrieval of goods.	• Provide a safe loading and unloading area and train staff in safe procedures • Devise a procedure to prevent premature movement of vehicles, e.g. ask the driver to hand over keys until the operation is complete, or at larger premises, with loading bays, use physical restraints and / or a traffic light system • If dock levellers are used, ensure they are kept in the raised position when not in use and that they are fitted with skirt plates and toe guards to prevent trapping. Regularly check for damage and maintain in good condition • Ensure tail lifts are designed to British Standards 6109 and 5304, that they are examined by a competent person annually and that the safe working load is not exceeded • Goods should be securely packed and arranged so that they are safe for transport and unloading, for e.g. shrink wrapped on pallets, in roller cages, etc. • If roller cages are used, ensure that vehicles are level when loading or unloading, that they are fitted with brakes and handles and that they are not overloaded • No vehicle should be loaded beyond it's rated capacity or beyond the legal limit of gross weight
Manual handling There is a risk of back injury and muscular strains from lifting and moving heavy or bulky items of stock.	• Assess all of the manual handling operations that your staff perform, i.e. lifting, carrying, pushing and pulling • Use mechanical devices where possible, e.g. trolleys, pallet movers, FLTs, conveyors, scissor lifts, etc. • Train staff in safe lifting techniques • Consider breaking up loads to make them more manageable or the use of two or more people for certain jobs • Ensure aisles are of sufficient width and consider raising the height of any working platforms to reduce the need to bend or twist
Hazardous substances Certain items of stock (and some chemicals used for cleaning) may be classed as hazardous or highly flammable. Exposure to some of these chemicals through leaks or spillages could cause burns, dermatitis or could be harmful if inhaled.	• Obtain information on the risks associated with all substances stored and used on the premises from the manufacturer's hazard data sheet • Provide special storage conditions if necessary, e.g. a fire resistant store or cabinet • Inspect substances on delivery to ensure packaging is intact, devise safe handling procedures and store in original containers • Devise a procedure for handling damaged containers and for cleaning up spillages • Provide staff with training and if necessary, protective clothing (e.g. gloves)

Main types of hazard	Managing the risk
Cold stores Accidents arising from cold stores include: Accidental locking in, over exposure to cold conditions, slips and falls due to ice build up and accidental release of refrigeration.	• Ensure the refrigeration system is designed to BS 4434 and that it is properly maintained • Only allow access to authorised persons • Provide an emergency exit, capable of being opened from the inside at all times, and a 'trapped man alarm' • Provide adequate protective clothing, e.g. thermal undergarments, socks, insulated suits / jackets, gloves and boots • Allow staff to take regular breaks in a warm area • Keep doors closed to minimise ice build up. Regularly check for, and remove, any ice • Ensure that persons required to work in very cold conditions do not suffer from a medical condition likely to be made worse by the temperatures (carry out a pre-employment medical check) • Devise a clear emergency procedure to be followed should refrigerant be accidentally released, which includes evacuation, rescue, first aid, plant isolation, etc.
Noise FLTs, conveyors, etc. used in some warehouses could give rise to potentially hazardous levels of noise.	• If, when people speaking normally have difficulty being heard clearly by someone who is about 2 meters away, then you should arrange for a noise assessment to be carried out • If this assessment confirms that hazardous levels do exist, then you will need to reduce exposure by quietening machinery or by limiting the time spent by staff in noisy areas • If ear protectors are necessary, ensure that audible, e.g. on FLTs, can still be heard
Fire risks Obstructed exit routes, e.g. by stock and / or accumulations of packaging can prevent escape and provide fuel for fires.	• Clearly mark escape routes, for e.g. using painted lines and signs • Keep all escape routes and fire exits clear and dispose of rubbish regularly
Electricity Accidents are mainly due to misuse or poor maintenance of equipment.	• The electrical system and all equipment should be inspected regularly and properly maintained • All electrical switchgear controlling machinery should be clearly labelled and readily accessible