# Safely Handling Materials




## What’s at Stake?

Materials handling work is part of many jobs. Think about the different things you lift, move, and store as part of your job – frequently or infrequently.

## What’s the Danger?

For those that regularly perform materials handling, you know it can sometimes be backbreaking and monotonous work. This can lead to carelessness, complacency, and mistakes due to being bored, losing focus, or worn out physically and mentally.

Which in turn, can lead to unstable stacks of materials, chemical leaks and spills, damaged product, frustration and wasted time searching for materials, and ultimately injuries and fatalities.

## How to Protect Yourself

Follow safety procedures, always practice safe lifting techniques, and get help when you need it, to ensure materials handling work is carried out safely and efficiently.

Here are 10 material handling guidelines:

1. Inspect skid steers, forklifts, hand carts, and other equipment used to move materials, before use.
2. Before stacking any materials, consider the type, height, and weight of the material.

   - Bigger, heavier items should be at the bottom of the stack.
   - Put materials that aren’t frequently used towards the back and keep frequently used items near the front of the storage area, shelf, or rack.
   - Keep items within reach. Stacking materials too high or too deep increases the risk of injury when materials are moved.

3. Start with a solid, level base when stacking and storing material and follow guidelines for safe stacking so materials don’t fall or roll.
   - When stacking drums, barrels, and kegs, use a symmetrical pattern.

        - If they are to be stacked on their ends, use a sheet of plywood or skid inserted between the levels to provide stability and an even surface for each level.
        - When stored on their sides, block the bottom tier to prevent the bottom drums from rolling out from under the load.
    - When stacking bags or bundles, use interlocking rows to increase the stability of the load.
    - All cylindrical materials such as structural steel, poles, and tubing must be stacked and blocked to prevent spreading or tilting.
        - Pipes, bars, and tubing should be stored in racks that run parallel to the warehouse aisles to eliminate a safety hazard for those who use those aisles.
4. Remove nails from lumber before stacking.
    - Watch for burrs, jagged edges and other hazards when storing materials.
5. Observe the maximum load limits for floors, shelving, racks, elevators and other surfaces.
    - Remember, shelving must be safely anchored to prevent tipping and falling.
6. Maintain appropriate clearances.
    - Emergency responders need to be able to get to a worker, fight a fire, or clean up a hazardous spill.
    - Don’t store materials directly under sprinkler heads. Check with your supervisor on clearance requirements.
7. Store non-compatible materials separately.
    - Flammables, oxidizers and reactives all have special storage requirements because of the risk of fire, explosion or chemical reaction.
8. Practice good housekeeping.
    - Clean up trash and spills to prevent slips, trips and falls.
    - Properly dispose of discarded steel strapping to prevent cuts.
    - Keep aisles clear of clutter and stored materials to prevent trips and falls and ensure there is enough room for safe operation of forklifts, pallet jacks and other equipment.
9. Practice safe lifting and carrying.
    - Sacks should be lifted using opposite corners. Once the sack has been lifted, shift it so it rests against your hip or stomach, then swing the sack up and over your shoulder. If you cannot swing it over your shoulder, the sack is too heavy.
    - Irregular objects can be shaped irregularly or unevenly weighted. If the object is unwieldy and you can’t securely grasp and lift it, get help and/or use a handcart.
    - Long objects such as pipes and tubing should be carried by two or more persons when possible, walking in step. If you handle it alone, keep the front end as high as possible.
10. Use material handling equipment to move loads when possible.
    - Depending on the job, a forklift, crane, hoist, conveyor or lift table may be appropriate.
    - Use this equipment only if you have been trained and authorized to do so.

## Final word

Materials handling is an important part of many jobs, but it can also be hazardous. Practice safe lifting, moving, and storage techniques and follow established safety procedures to keep yourself and others safe.