Working with Dangerous Goods – Safe Storage Meeting Kit

WHAT'S AT STAKE

Storing dangerous goods isn't just about putting containers on shelves, it's about preventing fires, leaks, health hazards, and environmental damage before they happen. Poor storage can lead to major accidents that harm workers, destroy property, and result in huge cleanup costs or fines.

Whether you're in a warehouse, lab, or jobsite, if dangerous goods aren't stored safely, the entire workplace is at risk. Flammable liquids, corrosive chemicals, reactive substances, and toxic gases can become deadly when stored incorrectly or placed too close to incompatible materials.

The safety of everyone in the building depends on proper labeling, storage procedures, and regular inspections. If something goes wrong, the damage can be immediate, and the consequences long-lasting.

WHAT'S THE DANGER

Improper storage of dangerous goods can quickly turn a regular day into a serious emergency. These materials are sensitive and can react violently if stored incorrectly. Here are some of the most common dangers:

- **Fire and Explosions:** Flammable substances stored near heat sources, sparks, or incompatible chemicals can ignite, causing massive fires or explosions that can injure or kill workers and destroy property.
- **Toxic Exposure:** Leaks from poorly sealed or damaged containers can release harmful vapors or gases into the air. Without proper ventilation or detection, workers may breathe these in, leading to serious health issues like poisoning or

lung damage.

- **Corrosive Damage:** Acids, bases, and other corrosive chemicals can eat through shelves, floors, and containers if not stored correctly. They can also burn skin and eyes if workers come into contact with them unexpectedly.
- **Environmental Contamination:** Spills or leaks can seep into drains, soil, or water supplies, harming wildlife and triggering expensive cleanup operations and regulatory penalties.
- **Chemical Reactions:** Storing incompatible chemicals together can lead to dangerous reactions, such as explosions, toxic fumes, or runaway fires.

Example:

A maintenance worker places a bottle of bleach on the same shelf as a container of ammonia, not realizing they're incompatible. The containers leak slightly overnight, and by morning, toxic chloramine gas has filled the storage room. Two workers who enter without respiratory protection suffer from eye irritation and shortness of breath. The area must be evacuated and professionally decontaminated.

Storing dangerous goods safely isn't optional – it's a critical safety practice that protects lives.

HOW TO PROTECT YOURSELF

Storing dangerous goods safely isn't just about putting containers on a shelf – it's about knowing what you're working with, following proper procedures, and staying alert. Taking the right steps helps prevent fires, toxic exposure, and serious accidents.

Know What You're Dealing With

Safe storage begins with understanding the materials. Each dangerous good has specific storage requirements, and mixing the wrong substances – like oxidizers and flammables – can result in fires, explosions, or toxic reactions. Before storing any chemical or substance, always read the Safety Data Sheet (SDS). It tells

you how to store the item, what it should stay away from, and what protective measures you need. Make sure every worker handling or accessing the storage area knows what’s being stored, the potential risks, and how to respond in an emergency.

Keep Storage Areas Organized and Safe

Storage spaces for dangerous goods should never feel cluttered or improvised. A well-organized storage area prevents accidents and makes emergencies easier to manage. Always store materials in designated, well-ventilated areas away from ignition sources or incompatible products. Fire-resistant cabinets, proper labeling, and secondary containment (like spill trays) help contain hazards if a leak or spill occurs. Good lighting, clear access routes, and restricted entry are also essential in keeping the area secure and manageable.

Example:

Place incompatible materials, like acids and bases, on separate shelves with clear labels. Use spill trays under liquid containers and store heavier items on lower shelves to avoid tipping. Always check that containers are tightly sealed and inspect labels before placing anything in storage.

Key Tips to Stay Safe:

- **Use approved storage cabinets for flammables,** corrosives, and toxics.
- **Separate incompatible substances** based on SDS or hazard class.
- **Keep containers sealed** and in good condition—report damaged packaging immediately.
- **Ensure clear, durable labels** on every container with correct hazard symbols.
- **Avoid storing dangerous goods** near exits, electrical panels, or ventilation intakes.
- Keep spill kits, fire extinguishers, and emergency eyewash stations accessible.
- **Rotate stock regularly** (First In, First Out) to prevent

buildup of old, unstable chemicals.

- **Train workers** on the location of emergency equipment and proper cleanup procedures.
- **Conduct regular inspections** of storage areas for leaks, corrosion, and expired items.

FINAL WORD

Storing dangerous goods safely isn’t just about following rules, it’s about preventing accidents before they happen. Keeping materials labeled, organized, and separated reduces risks and protects everyone in the workplace. Good storage practices are a key part of a safe and responsible work environment.