

Combustible Dust

Industry-Specific Risks & Prevention

Combustible dust is a **serious but often overlooked** hazard across many industries. When fine dust becomes airborne and meets an ignition source in a confined space, it can cause **fire, flash fires, or explosions**.

Bakeries & Food Processing

Common Dusts:

- Flour
- Sugar
- Grain and starch products

High-Risk Activities:

- Mixing, sifting, conveying ingredients
- Bag dumping and ingredient transfer
- Dust accumulation on ledges, equipment, and ceilings

Key Prevention Tips:

- Use dust collection systems at mixers and transfer points
- Clean surfaces routinely, avoid compress air
- Control ignition sources near ovens and mixers
- Ground and bond equipment to prevent static discharge

Pharmaceutical Manufacturing

Common Dusts:

- Active pharmaceutical ingredients (APIs)
- Excipients and powdered chemicals
- Pharmaceuticals (pill dust)

High-Risk Activities:

- Tablet pressing and coating
- Powder blending and transfer
- Drying and milling processes

Key Prevention Tips:

- Use enclosed systems where possible
- Maintain proper ventilation and filtration
- Control static electricity during powder handling

Wood Products & Manufacturing

Common Dusts:

- Sawdust
- Wood flour
- Fine wood particles

High-Risk Activities:

- Cutting, sanding, planing, and routing
- Dust buildup in ducts and collection systems
- Improperly maintained dust collections

Key Prevention Tips:

- Maintain dust collection and exhaust systems
- Empty collection bins regularly
- Inspect ducts and collectors for blockage or leaks
- Keep ignition sources away from dust accumulation areas

Metal Fabrication

Common Dusts:

- Aluminum
- Magnesium
- Titanium and other fine metal dusts

High-Risk Activities:

- Grinding, polishing, sanding
- Cutting and finishing operations
- Dry dust collection of metal particles

Key Prevention Tips:

- Use dust collectors designed for metal dust
- Never mix metal dusts with other materials
- Control sparks and hot work activities
- Follow proper storage and disposal procedures

