

High-Hazard Occupancy - Group H

2025 California Building Code §307 - Groups H-1 through H-5

Purpose. Group H applies when hazardous-material manufacturing, processing, generation, use or storage creates physical or health hazards above the code-permitted maximum allowable quantities for control areas, subject to specific exemptions and special rules.

1. Group H Subclassifications

Code reference: 2025 CBC §§307.3-307.7

Group	Principal hazard	Typical material/process examples
H-1	Detonation hazard	Certain explosives, detonable pyrophorics, Class 4 oxidizers, highly unstable detonable materials
H-2	Deflagration / accelerated burning	Certain flammable liquids/gases, combustible dust, pyrophorics, Class 3 water-reactives, high-hazard oxidizers
H-3	Materials that readily support combustion / physical hazard	Certain closed-system flammable liquids, flammable solids, oxidizing gases, Class 2 water-reactives, some fireworks
H-4	Health hazard	Corrosive, highly toxic and toxic materials above applicable quantities
H-5	Semiconductor / comparable HPM use	Semiconductor fabrication and comparable R&D areas using hazardous production materials above applicable limits

2. Maximum Allowable Quantity (MAQ) Is Critical

A building does not become Group H merely because hazardous materials are present. Classification depends on the material hazard category, whether it is stored or used, open/closed systems, the quantity within each control area, approved cabinets/enclosures, sprinkler protection and the specific CBC/CFC tables and footnotes.

Some materials and conditions are exempt from contributing to Group H classification but still remain regulated by the California Fire Code.

Code reference: 2025 CBC Tables 307.1(1), 307.1(2), Table 307.1.1; CBC §414; CFC Chapter 50 and material-specific chapters

3. Multiple Hazards and Mixed Classifications

- A material can present more than one hazard and can require compliance with multiple H-group provisions.
- Control areas can allow hazardous materials within non-H occupancies when quantities and construction comply with CBC §414.
- Rooftop hazardous-material storage/use is separately regulated by the California Fire Code.
- Hazardous material inventory statements, management plans, SDS information and process descriptions are often necessary to classify the space correctly.

Code reference: 2025 CBC §§307.8, 414 and 415; 2025 CFC Chapter 50

4. Fire Prevention Review Items

- Hazardous-material inventory by chemical, class, physical state and container size.
- MAQ/control-area calculations and allowable increases.
- Fire-resistance-rated separations, detached-building requirements and explosion control where applicable.
- Mechanical exhaust, gas detection, emergency alarm, spill control/drainage and secondary containment.
- Automatic sprinkler/alternative suppression systems and emergency shutoffs.
- Emergency responder access, signage/placarding and hazardous-material permits.

Primary References

References: 2025 California Building Code §307 - High-Hazard Group H; 2025 CBC §§414 and 415 - hazardous materials / Group H requirements; 2025 California Fire Code Chapter 50 and material-specific Chapters 51-67; 2024 International Building Code Chapter 3

Final requirements depend on the actual use, occupant load, building size and construction, mixed occupancies, hazardous materials and fire-protection systems. The fire/building code official makes the final occupancy-classification determination.