

Storage Occupancy - Group S

2025 California Building Code §311 - Groups S-1 and S-2

Purpose. Group S covers storage uses that are not classified as hazardous Group H. The subgroup depends largely on the combustibility and fire hazard of the stored commodities.

1. Storage Subclassifications

Code reference: 2025 CBC §§311.2-311.3

Group	Hazard level	Representative commodities/uses
S-1	Moderate-hazard storage	Furniture, paper/cardboard, clothing, lumber, lithium batteries, tires, mattresses, mini-storage, motor-vehicle repair garages within MAQ limits
S-2	Low-hazard storage	Noncombustible products and limited-combustible packaging; metal/glass/ceramic products, food in qualifying containers, public parking garages

2. Accessory Storage and High-Piled Storage

- A storage room accessory to another occupancy can be classified as part of that occupancy rather than a separate Group S occupancy.
- High-piled stock/rack storage and combustible storage in attics, under-floor or concealed spaces are subject to special requirements beyond the basic occupancy classification.
- High-piled combustible storage can trigger fire department permits, commodity classification, aisle/access requirements and specialized sprinkler design.

Code reference: 2025 CBC §§311.1.1-311.1.2 and §413; 2025 CFC Chapter 32

3. Important Boundaries

- Hazardous materials above applicable maximum allowable quantities can trigger Group H.
- A building where goods are displayed/sold to the public can be Group M rather than Group S.
- Manufacturing/processing operations can be Group F even when significant raw-material or finished-goods storage is present.
- Lithium-ion and lithium-metal battery storage is recognized as S-1 but also requires evaluation under California Fire Code battery/energy-storage provisions where applicable.
- Parking garages are generally S-2 but have additional requirements in CBC §406.

Code reference: 2025 CBC §§307, 309, 306, 311.2-311.3 and 406

4. Fire & Life-Safety Review Considerations

- Verify the actual use of each room, tenant space and outdoor/rooftop area; a building can contain more than one occupancy group.
- Determine occupant load and means-of-egress requirements under CBC Chapter 10.
- Evaluate automatic sprinkler and fire alarm requirements under CBC/CFC Chapter 9.
- Check allowable building height/area, construction type and occupancy separation requirements under CBC Chapters 5 through 7.
- Maintain required fire department access, water supply, addressing, key-box access and fire protection equipment access as applicable.
- Changes in use or occupancy can trigger a new code analysis even when little or no construction work is proposed.
- Storage occupancies require special attention to commodity type, storage height, rack configuration, aisle width, sprinkler clearance, smoke/heat vent features and fire department access doors.

Code reference: 2025 CBC Chapters 5-10; 2025 CFC Chapters 5, 9 and applicable occupancy/hazard chapters

Primary References

References: 2025 California Building Code §311 - Storage Group S; 2025 California Fire Code §203.10 - Storage Group S; 2025 CBC §413 / 2025 CFC Chapter 32 - high-piled combustible storage; 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.