



Guide for Determining the Maximum Amount of Liquid Oxygen Allowed in Your Building

Presented courtesy of the Chino Valley Fire District

Many persons suffer severe respiratory ailments which require them to use oxygen on a regular basis. Until recently, often the mobility of these people was severely limited because of the size and weight of the oxygen equipment they would need to take with them. However, thanks to modern medical technology, small, lightweight units containing liquid oxygen are available, providing the needed oxygen in a way that provides much more freedom of movement to the resident.

However, the California Fire Code provides limits on the amount of liquid oxygen allowed in a given area. This guide is written to assist both those in private residences and managers of Residential Care Facilities for the Elderly in determining how much liquid oxygen they are allowed to have on hand in the building.

Maximum Amounts of Liquid Oxygen

One way the Fire Code regulates hazardous materials such as liquid oxygen is by establishing maximum amounts of the materials per “control area”. A “control area” is an area separated by other parts of the building with at least 1-hour construction with 1 hour doors. Assuming your building is one “control area”, you can have a maximum of 45 gallons of liquid oxygen in an unsprinklered building, and a maximum of 90 gallons in a sprinklered building. In some circumstances, you may be allowed to have greater amounts of liquid oxygen, depending on the construction of your building. Call the Fire District at (909) 902-5280 for more information.

Based on the information above, your maximum amounts of liquid oxygen in a private residence or in a building with one control area would be as follows:

	Non-Sprinklered	Sprinklered
Maximum Gallons per Control Area	45	90
Maximum No. of 15 Gal. Liquid Oxygen Base Units* per Bldg.	3	6

* Most liquid oxygen base units hold around 15 gallons, with some variation.

Flexible Alternative for 1-hour Constructed Buildings

Many newer buildings for Residential Care Facilities for the Elderly (RCFEs) are built to provide 1-hour separation of each dwelling unit. What this means in laymen's terms is that all outside walls of the apartment are built to 1-hour construction standards and the doors going in and out of the apartment are 1 hour doors. The walls and the doors inside the apartment are not required to be built to 1 hour standards.

If your building is built to this standard, and that construction type is verified by the Fire District for your building, then you can use an alternative method of determining maximum amounts of liquid oxygen per dwelling unit. In this case, each dwelling unit can store up to 31.6 gallons of liquid oxygen (that would be about two of the base units) in each apartment, with the largest single container being 15.8 gallons (one base unit).

Maximum Gallons per Dwelling Unit	31.6
Maximum No. of 15 Gal. Liquid Oxygen Base Units* per Bldg.	2

* Most liquid oxygen base units hold around 15 gallons, with some variation.

We're Here to Help

We hope this explanation helps you understand how to determine how much liquid oxygen you can store legally, and where it can be stored.

The Chino Valley Fire District would also be pleased to provide you with our Guide for the Safe Storage, Handling, and Use of Portable Liquid Oxygen Systems, upon request.

If you have any questions concerning liquid oxygen, please call the Chino Valley Fire District Fire Prevention Division at (909) 902-5280.