

To Vent or Not To Vent

Should chemical storage cabinets be ventilated?



Proper room ventilation with adequate air exchanges will eliminate most unsafe chemical vapors. The only time you may want to ventilate a chemical storage cabinet is if the ventilation in the laboratory or chemical stores area is inadequate, or you are required to provide cabinet ventilation because of state or local law.

Venting a chemical storage cabinet is not necessary for fire protection, in fact, a vented cabinet could compromise the ability of the cabinet to protect its contents from a fire. In the event of a fire, vapor from the hazardous chemicals in the cabinet could be released. If the integrity of the chemical storage cabinet is compromised because of the ventilation system, these hazardous fumes will escape from the cabinet and a very dangerous and devastating situation may occur.

Before purchasing any chemical storage cabinet, you should familiarize yourself with all local and state codes and follow any facility guidelines. Safety is always paramount when in a laboratory environment.

Note the proper guidelines established by the National Fire Protection Association for the ventilation of flammable chemicals.¹

NFPA # 30

9-5.4*

Storage cabinets are not required to be vented according to this code for fire protection purposes.

9-5.4.1

If not ventilated, storage cabinet vent openings shall be sealed with the bungs supplied with the cabinet or bungs specified by the cabinet manufacturer.

9-5.4.2

If ventilated for any reason the storage cabinet vent openings shall be ducted directly to the outdoors in such a manner that will not compromise the specified performance of the cabinet and in a manner that is acceptable to the authority having jurisdiction.

Reference: ¹ National Fire Protection Association, 2008 edition, Flammable & Combustible Liquids Code #30