

FDN(wh)Y Me?

As an aid to laboratories in avoiding FDNY Violation Orders (VO) and Summonses (SUM), EH&S distributes monthly FDNY inspection findings which resulted in a VO or SUM citation to an actual laboratory on either the Morningside or Medical Center campus. These real-life scenarios are meant to assist the research community in ensuring that such conditions do not exist in Columbia University laboratories.

February 2024 – Chemical Segregation

Chemical Harmony: Safety through Segregation

During a regular weekly inspection of Columbia University laboratories, the FDNY fire inspector issued a violation to a lab for incompatible chemical storage which resulted in cabinet corrosion (see photos below). Maintaining proper storage and segregation is an important measure that contributes to a safe working environment in research laboratories.

Chemical segregation is a fundamental safety practice that involves organizing and separating chemicals based on their properties to minimize the risk of hazardous incidents in laboratories. Incompatible chemicals should always be stored separately. Columbia University's Chemical Segregation and Storage Guidance can be found [here](#). Some common examples of segregation requirements are below:

Chemicals	Incompatibles
Incompatible Acids and Bases	Acids and bases with opposing pH levels should be stored separately to prevent potentially dangerous reactions.
Oxidizers and Reducers	Segregate oxidizing agents from reducing agents to avoid fire or explosive hazards.
Inorganic Acids	Inorganic acids must be stored separately and not in the same tray/container as flammable liquids, flammable solids, bases, and oxidizers.
Flammable Liquids/Solids	Store flammable liquids away from potential ignition sources and acids, bases, oxidizers, and poisons.
Water-Reactive Compounds	Separate from all aqueous solutions, and oxidizers.



Photos: No segregation of incompatibles are seen. Some chemicals are in concerning states and possible time and chemical vapor release have led to corrosion of the cabinets.

As always, please contact EH&S at labsafety@columbia.edu for any questions or guidance regarding proper segregation of hazardous materials or if any cabinets or chemicals look concerning.

Please note, the FDNY Laboratory Inspection Unit is on-site weekly at the Morningside and Irving Medical Center campuses. For a consultation before the FDNY inspector gets around to your lab, or for any question, concern, or help, please contact an EH&S Safety Advisor. <https://research.columbia.edu/safety-advisor-team>