Highlighting innovative design features
and useful application information for
**Thermo Scientific Flammable Material Storage (FMS) Refrigerators and Freezers**

# smart notes

**selection** ▶ FMS Refrigerators and Freezers

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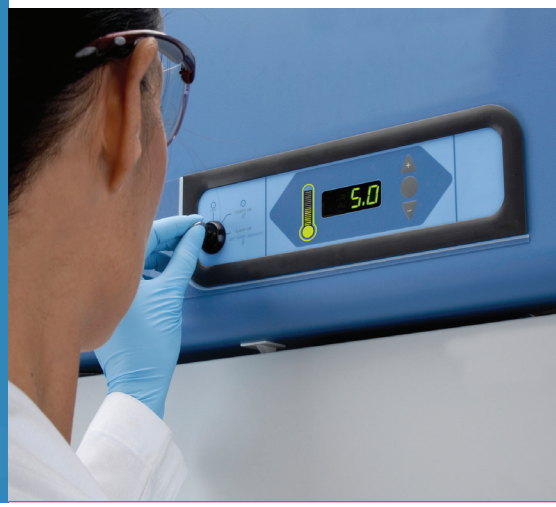


## Q A

**Is there a safer way to store potentially flammable, pharmaceutical-grade materials that require refrigerated or frozen temperatures?**

**Yes. Household and commercial refrigerators and freezers feature electrical systems that work in conjunction with defrost timers. When volatile gases come in contact with these electrical arcs, there is the potential for an explosion that could cause bodily harm as well as costly damage to the lab. That's why a high-performance cabinet designed for flammable material storage is a must have.**

- Thermo Scientific™ FMS high-performance refrigerators and freezers are designed to meet your Chemical Hygiene Plan's (CHP) inclusions about flammable materials or samples containing trace amounts of flammables that could cause a fire or explosion.
- These cabinets are also a turnkey solution for GxP, GMP, GLP and similar labs where validation is required to meet the most stringent USP guidelines for pharmaceutical storage.
- With a strict cabinet temperature range of 2° to 8°C (refrigerators) and -15° to -25°C (freezers), these cabinets are ready to validate under even the most demanding ambient conditions.
- Designed for the storage of drug intermediates, standards, buffer solvents (methanol, ethanol, 2-propanol, hexanes, pentane, THF, diethyl ether, etc.), organic acids, acetone and other critical materials containing trace amounts of flammables or components dissolved in flammable solvents.

# Thermo Scientific FMS high-performance refrigerators and freezers protect your samples and end-users

1. **NEW spark-free, intrinsically safe interiors:** Models feature specially-designed interior parts to prevent flammable vapors or gases from contacting internal ignition sources.
2. **NEW, more efficient, manual defrost design:** Automatic defrost systems introduce electrical arcs which can trigger a spark with potentially flammable materials. All FMS models are manual defrost.
3. **Regulatory compliant:** All models meet safety standards in accordance with UL, NFPA* and OSHA*. In addition, each model is listed by UL as a special purpose model intended for flammable material storage in compliance with NFPA 45, 70 and 99*.
4. **Exterior security features:** Lockable doors, audio and visual alarms including door ajar alarms limit user access and provide peace of mind.
5. **Factory-ready for external monitoring:** All FMS models feature 4-20mA output (optional), dry alarm contacts, ½" access port for use with additional intrinsically safe probe and compatibility for wireless monitoring.


## Summary

Thermo Scientific FMS high-performance refrigerators and freezers meet industry protocol for the storage of critical, potentially flammable, pharmaceutical-grade materials or samples containing trace amounts of flammables that could cause a spark.

*Products complying with the applicable requirements of NFPA 70, "National Electric Code", NFPA 45, "Fire Protection for Laboratories Using Chemicals," and NFPA 99 "Health Care Facilities" are considered to meet the OSHA guidelines for these types of facilities. These units have no internal electrical components that could trigger an explosion or fire of flammable materials inside the unit. Flammable material storage units are not for use in classified hazardous locations which require the use of explosion-proof units.

**Find the FMS refrigerator or freezer that's right for your lab:**
**www.thermoscientific.com/flammablestorage**



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