

STANDARD INFORMATION

Standard Number: UL 471

Standard Name: Commercial Refrigerators and Freezers

Standard Edition and Issue Date: 4th Edition dated November 25, 2010

Date of Revision: June 25, 2019

Date of Previous Revision of Standard: November 8, 2018

EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

Effective Date: **June 25, 2021**

IMPACT, OVERVIEW, AND ACTION REQUIRED

Impact Statement: A review of all Listing Reports is necessary to determine which products comply with new/revised requirements and which products will require re-evaluation. **NOTE:** Effective immediately, this revised standard will be exclusively used for evaluation of new products unless the Applicant requests in writing that current requirements be used along with their understanding that their listings will be withdrawn on Effective Date noted above, unless the product is found to comply with new/revised requirements.

Overview of Changes: Requirements covering lab refrigerators with an outlet in the refrigerated compartment. Specific details of new/revised requirements are found in table below.

If the applicable requirements noted in the table are not described in your report(s), these requirements will need to be confirmed as met and added to your report(s) such as markings, instructions, test results, etc. (as required).

Client Action:

Information – To assist our Engineer with review of your Listing Reports, please submit technical information in response to the new/revised paragraphs noted in the attached or explain why these new/revised requirements do not apply to your product (s).

Current Listings Not Active? – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records. We will do this at no charge as long as Intertek is notified in writing prior to the review of your reports.



STANDARD INFORMATION

CLAUSE	VERDICT	COMMENT
Supplement SB	Info	Requirements for Refrigerators And Freezers Employing a Flammable Refrigerant in the Refrigerating System
SB4	Info	Construction
		<i>New section added;</i>
SB4.4		Laboratory refrigerators or freezers using a flammable refrigerant with a convenience outlet or similar power receptacle inside the refrigerated compartment
		A laboratory refrigerator or freezer using a flammable refrigerant with an electrical outlet located inside the refrigerated compartment shall:
SB4.4.1		a) Employ a protected cooling system and comply with the additional test requirements of SB5.1.5.2, or b) Be equipped with a refrigerant detection system that, when activated, deenergizes the electrical outlet(s).
		With regards to SB4.4.1(b):
SB4.4.2		a) The detector(s) shall comply with the Standard for Gas and Vapor Detectors and Sensors, UL 2075 or with the Standard for Electrical Equipment for Measurement, Control and Laboratory Use; Part 1: General Requirements, UL 61010-1, and b) The refrigerant leakage test of clause SB5.1.5 shall be conducted to verify the performance of the detection system.
SB4.4.3		For the purposes of this standard, the refrigerant detection circuit is considered to be a protective circuit.
SB5	Info	Performance
SB5.1	Info	Leakage test
		<i>New section added;</i>
SB5.1.5		Refrigerant leakage in a laboratory refrigerator or freezer using a flammable refrigerant with an electrical outlet inside the refrigerated compartment
SB5.1.5.1		With regards to SB4.4, a refrigerant leakage test shall be conducted to either verify the cooling system is protected or, if unprotected, verify the performance of the refrigerant detection system. For tests methods SB5.1.5.2 and SB5.1.5.3, refrigerant sensors are to be placed in the refrigerated compartment where refrigerant is likely to concentrate.
SB5.1.5.2		For a Protected Cooling System, the test shall be conducted in accordance with SB5.1.2.



CLAUSE	VERDICT	COMMENT
SB5.1.5.3		For an Unprotected Cooling System, the test shall be conducted in accordance with SB5.1.3, except the detection circuit shall operate to deenergize the outlet before the measured refrigeration concentration reaches the levels specified in SB5.1.3.8.
CUSTOMERS PLEASE NOTE: This Table and column "Verdict" can be used in determining how your current or future production is or will be in compliance with new/revised requirements.		