# Information for Owners of Commercial Refrigerators

# **Know More About** Flammable Refrigerant



#### Introduction



Refrigerants generally refer to substances which produce cooling effect through their physical properties. They are commonly used in refrigeration and air-conditioning systems. Non-flammable refrigerants such as R134a and R404A (flammability class 1) are generally used in commercial refrigerators in Hong Kong. However, in response to the new eco-friendly trend, highly flammable refrigerants with low global warming potential, such as R290 and R600a (flammability class 3), have been adopted in some commercial refrigerators in Hong Kong. The owners of commercial refrigerators should pay attention to refrigerant safety when purchasing, installing, operating, maintaining and repairing, dismantling, recycling and disposing of commercial refrigerators using flammable refrigerants. Improper handling of commercial refrigerators with flammable refrigerants may lead to fire risks.

#### **Purchase**



When purchasing a commercial refrigerator, you

- 1. Select a reliable and reputable agent / supplier.
- 2. Ensure that the agent / supplier will provide maintenance and repair services for the appliance.
- 3. Ensure that the design, manufacture and testing of the selected refrigerator comply with relevant standards (such as IEC 60335-2-89).
- 4. Check the type of refrigerant used in the appliance. If a flammable refrigerant is used in the refrigerator, learn more from the agent / supplier about the relevant safety information, including the room area and environment requirements for installation, to ensure the safe use of the appliance.



#### Installation



Before the installation of a commercial refrigerator using flammable refrigerant, the room area and environment of the place of installation must be checked to ensure compliance with the requirements prescribed by the manufacturer. The installation

work must be carried out in accordance with the instructions of the manufacturer by the agent / supplier. No commercial refrigerator using a flammable refrigerant shall be installed near electric heating equipment, ignition sources or open flames.

## **Operation**



Before using a commercial refrigerator, read the user manual carefully to understand how to use the appliance properly. When using the appliance, keep clear of obstruction for all ventilation openings of the appliance and ensure good heat dissipation. If a flammable refrigerant is used in a commercial refrigerator, a flame symbol and warning labels should be marked and / or affixed on the body of the refrigerator. Do not remove the symbol and the labels.

# Maintenance & Repair



Proper maintenance and repair of a commercial refrigerator can ensure the safety of the appliance. In this connection:

- 1. Regular cleaning and safety checks should be arranged.
- 2. If abnormalities (e.g. excessive noise or vibration, abnormal smell or signs of overheating, etc.) are found, switch off the refrigerator at once and arrange for repair.
- 3. In case the refrigerant circuit is damaged, do not use any electric heating or gas appliances. Ensure no source of ignition (e.g. lighter and matches) nearby, open all the windows for good ventilation and contact the agent/supplier for follow-up.

4. Do not use sharp tools or means other than those recommended by the manufacturer to speed up defrosting process.



- 5. Do not clean the interior of a refrigerator with bleach, which may damage the refrigerant circuit.
- 6. Ensure that the handling and replacement of refrigerants are carried out by the agent / supplier and in compliance with relevant occupational safety and health legislation.

# Dismantling, **Recycling & Disposal**



If dismantling, recycling or disposing of a commercial refrigerator with flammable refrigerant is required, you should contact the relevant agent/supplier / contractor for arranging the work to be done. Do not do it vourself.



### **Enquires**



For more information on flammable refrigerant safety, please scan the QR code on the right to visit our thematic website.



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