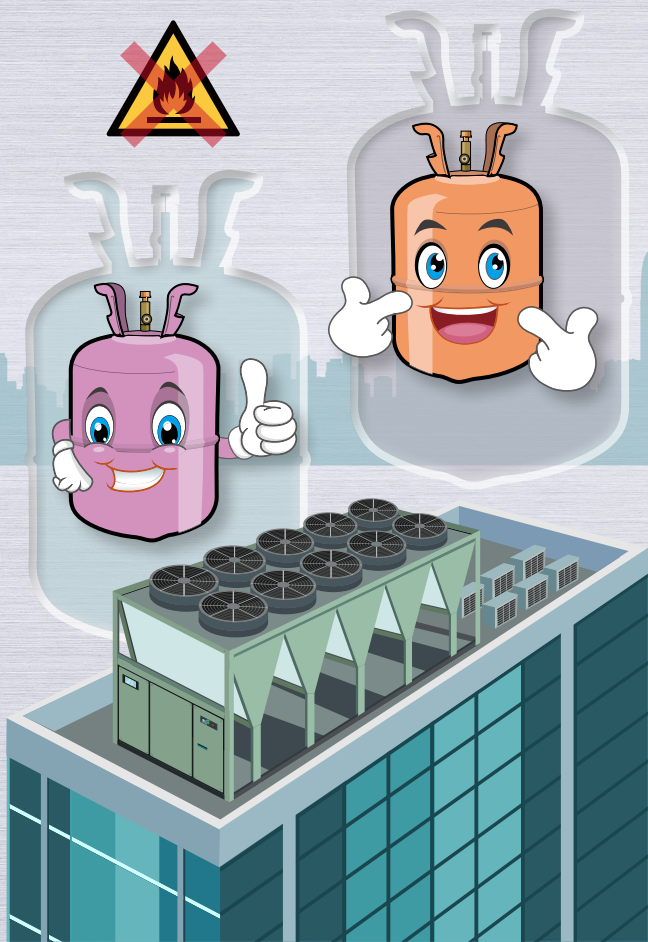


雪種安全知多點

Know more about refrigerant safety



何為雪種？

What is refrigerant?



雪種（又稱製冷劑、冷媒）是指可透過其物理特性製冷的物質，常用於空調及製冷設備。香港的空調及製冷設備普遍採用非易燃雪種，即使遇上明火或火花都不會燃燒。但近年，一些帶輕度易燃或易燃的雪種出現，若不當處理這類雪種便會構成危險。

Refrigerants generally refer to substances which produce cooling effect through their physical properties and are commonly used in air-conditioning and refrigeration equipment. Air-conditioning and refrigeration equipment in Hong Kong generally uses non-flammable refrigerants, which will not burn even in the presence of naked flames or sparks. However, in recent years, some mildly flammable or flammable refrigerants have been appeared. If they are not handled properly, they may cause danger.

香港的環境

Hong Kong's environment

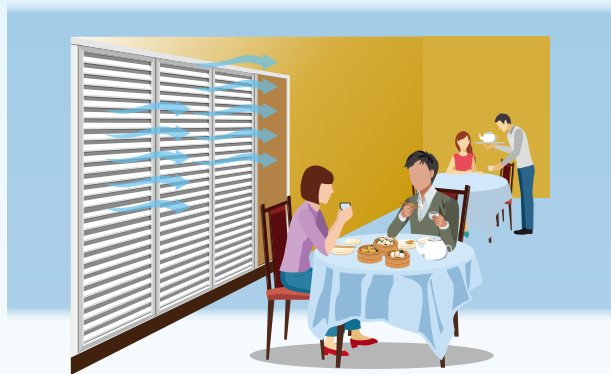


香港環境擠迫，人煙稠密，高樓大廈林立，從安全及風險管理角度而言，每位中央冷氣系統擁有人都應考慮雪種的安全性，於工業樓宇、商業樓宇、學校、機構及社區設施等人多佔用的樓宇都不宜安裝採用易燃雪種的空調及製冷設備。



In view of Hong Kong's crowded and densely populated environment with congested high-rise buildings, owners of central air-conditioning system should consider the safety of refrigerant. It is not suitable to install air-conditioning and refrigeration equipment using flammable refrigerants in buildings with a large number of occupants and visitors, such as industrial buildings, commercial buildings, schools, institutions and community facilities, from the perspectives of safety and risk management.

商業樓宇、工業樓宇、學校、機構、食肆、戲院等地方都應避免採用易燃雪種。一旦遇上火警，易燃雪種的洩漏會令火勢加劇，並對人多擠迫及環境密集的地方造成較大的潛在風險。樓宇業主或負責人應顧及市民、使用者及樓宇的安全，選用非易燃雪種。



Commercial buildings, industrial buildings, schools, institutions, restaurants, theatres, etc. should avoid the use of flammable refrigerants. In the event of a fire, the leakage of flammable refrigerants will escalate the fire, and may pose a greater potential risk to crowded and densely populated places. For the sake of the safety of the public, users and buildings, building owners and persons in charge are advised to adopt non-flammable refrigerants.

聯合通告 Joint departmental circular

機電工程署（機電署）聯同消防處及勞工處於 2017 年發出有關易燃雪種的安全事宜通告，詳情可掃描右面的二維碼下載。



The Electrical and Mechanical Services Department (EMSD), the Fire Services Department and the Labour Department issued a joint circular on safety of flammable refrigerants in 2017, details of which can be downloaded by scanning the QR code on the right.



非易燃雪種的例子 Examples of non-flammable refrigerants

現時香港市場上有多款採用非易燃雪種的空調及製冷設備可供選擇，業主及物業管理公司負責人可與相關的專業人士洽談，以選擇最合適的雪種。以下列出幾款非易燃雪種，以供參考：

At present, there are many types of air-conditioning and refrigeration equipment using non-flammable refrigerants available in Hong Kong market. Building owners and persons in charge of property management companies can discuss with relevant professionals in order to choose the most suitable refrigerant. Some examples of non-flammable refrigerants are listed below for reference:



更換 R22 雪種的製冷設備

Replacement of air-conditioning and refrigeration equipment using R22 refrigerant



在香港，空調及製冷設備過往一般採用傳統的 R22 雪種。不過，由於 R22 雪種是消耗臭氧層物質，根據《保護臭氧層（含受管制物質產品）（禁止進口）規例》，採用 R22 雪種的空調及製冷設備已於 2010 年禁止進口。基於以上的管制，加上現時仍使用 R22 雪種的空調及製冷設備已安裝多年，業主在計劃更換有關空調及製冷設備時，除了要考慮能源效益及價格外，更要緊記選擇採用非易燃雪種。

In Hong Kong, the traditional R22 refrigerant was commonly used in air-conditioning and refrigeration equipment in the past. However, as R22 refrigerant is an ozone depleting substance, according to the Ozone Layer Protection (Products Containing Scheduled Substances) (Import Banning) Regulation, all air-conditioning and refrigeration equipment using R22 refrigerant were banned from import since 2010. Given to the above restrictions and the fact that air-conditioning and refrigeration equipment still using R22 refrigerant has been installed for many years, when planning to replace such refrigeration equipment, apart from considering the energy efficiency and price, owners are reminded to choose those which use non-flammable refrigerants.



購買和更換空調及製冷設備

Purchase and replacement of refrigeration equipment

購買和更換空調及製冷設備時，應向信譽良好的供應商及承辦商徵詢意見，以選購最合適的雪種，確保安全使用。



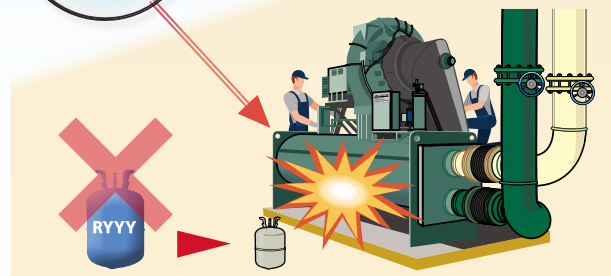
When purchasing and replacing air-conditioning and refrigeration equipment, you should seek advice from reputable suppliers and contractors and choose the most suitable refrigerant to ensure safe use.

不應改用非原設計的雪種

Do not adopt non-prescribed refrigerant



空調及製冷設備的設計會按所用雪種的特性而有所不同。業主應遵照製造商說明書的指示，使用原設計所訂明的雪種，不應改用其他類型的雪種。過往曾有因改用易燃雪種而導致爆炸、火警及傷亡的個案。如對雪種有疑問，請與機電署聯絡。



The design of air-conditioning and refrigeration equipment varies according to the characteristics of the particular refrigerant used. Owners are advised to adopt the prescribed refrigerants in accordance with manufacturers' manuals, instead of switching to other types of refrigerants. In the past, there have been explosions, fires and casualties due to switching to flammable refrigerants. For enquiries on refrigerants, please contact the EMSD.



相關法例 Relevant ordinances



雪種的貯存、運送及處理事宜，必須遵循以下相關的香港法例：

For storage, transportation and handling of refrigerants, the following relevant ordinances of Hong Kong shall be complied with:

| 法例章號 Chapter No. | 法例標題 Chapter Title |
|------------------------|--|
| 第 295 章 Chapter 295 | 《危險品條例》 Dangerous Goods Ordinance |
| 第 51 章 Chapter 51 | 《氣體安全條例》 Gas Safety Ordinance |
| 第 59 章 Chapter 59 | 《工廠及工業經營條例》 Factories and Industrial Undertakings Ordinance |
| 第 509 章 Chapter 509 | 《職業安全及健康條例》 Occupational Safety and Health Ordinance |

新型雪種快訊

Newsletter on New Eco-friendly Refrigerants

機電署定期出版《新型雪種快訊》，如有興趣，可掃描右面的二維碼閱覽。

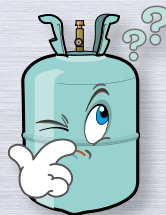
The EMSD issues the Newsletter on New Eco-friendly Refrigerants on a regular basis. If you are interested, please scan the QR code on the right for viewing.



查詢 Enquiries



如需要更多有關易燃雪種的資訊，可掃描右面的二維碼瀏覽機電署網頁。



For more information on flammable refrigerants, please scan the QR code on the right for viewing the EMSD website.



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