

# Types of Fluorocarbon-Free Air Dusters • • •

The types of fluorocarbon-free air duster available can be categorized into 1) Aerosol cans with mix of Dimethyl Ether(DME) and Carbon Dioxide (CO<sub>2</sub>) gas, and 2) High pressure gas cylinders with Carbon Dioxide (CO<sub>2</sub>). The switch to fluorocarbon-free products was difficult due to the necessary measures addressing the inflammability, high pressure and explosibility, but recently these points have been improved, and fluorocarbon-free air dusters are proactively being introduced in accordance with policies such as the Green Purchasing Law.

The features of fluorocarbon-free air dusters are as following.

## 1) DME/CO<sub>2</sub> mix gas type

- Ozone Depleting Potential: 0, Global Warming Potential: <1
- Comparable price to previous products
- To reduce risk of inflammation, a special absorbent is used in the can to prevent the injection of liquefied gas, which mixes DME with the CO<sub>2</sub> when sprayed.

## 2) CO<sub>2</sub> Type (high pressure gas cylinder type)

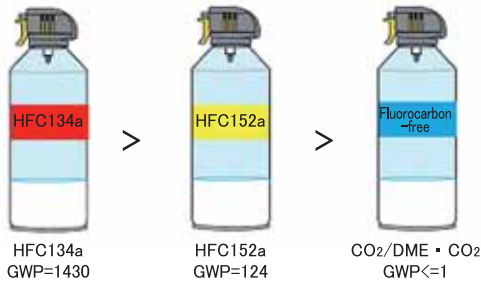
- Ozone Depleting Potential: 0, Global Warming Potential: 1
- No risk of inflammation
- Since the gas is at high pressure, a high pressure gas cylinder equipped with an automatic leakage device for high temperature situations is used
- Contents less than 100ml, which is exempted from the High Pressure Safety Law
- Gas cylinders can be replaced and reused

Gas	DME/CO <sub>2</sub> mix gas	CO <sub>2</sub>	
Container type	Aerosol 2 piece can	High pressure gas cylinder	
		Cartridge style with replaceable cylinder	Used containers can be collected and reused
Contents	350ml	Less than 100ml (Exempted from the High Pressure Safety Law)	
Can weight (excluding gas)	200~250g	400~450g	250~300g
Measures against inflammation	Prevent inflammation by preventing injection of liquefied gas	No flammability, no risk of inflammation	
Measures against explosion, high pressure	Extra measures not necessary as the pressure is comparable to fluorocarbon products	High pressure, designed to allow automatic leakage from valve and cylinder at high temperatures. Have thick sides	
Sales price	Comparable price to fluorocarbon-based products	2-3 times price of fluorocarbon-based products	

※Fluorocarbon-free air dusters use inflammable and high pressure gases.  
It is important to carefully read and follow the safety directions.

# Points to Consider When Choosing Fluorocarbon-Free Air Dusters • • • • •

Fluorocarbon-free air dusters are labeled to show that they are fluorocarbon-free and contain CO<sub>2</sub> with Global Warming Potential of 1 or Dimethyl Ether (DME) with Global Warming Potential of less than 1. However, fluorocarbon (HFC)-based products also show “environmentally friendly”(because HFCs don’t damage the Ozone Layer), “Global Warming Potential one tenth” (the Global Warming Potential of HFC152a is 124, approximately one tenth of HFC134a),



None of the products harm the ozone layer, but their Global Warming Potential is markedly different

therefore it is important to confirm that a product is fluorocarbon-free when purchasing.

## Major National Policies • • • • •

Law Concerning the Promotion of Procurement of Eco-Friendly Goods and Services by the State and Other Entities (Law on Promoting Green Purchasing)

In accordance with the Law on Promoting Green Purchasing, evaluation criteria and factors for consideration in procurement of specific products are specified in the “Basic Policy on the Promotion of Procurement of Eco-Friendly Goods.”



Previously, government entities were supposed to consider purchasing air dusters without HFCs; but in February 2008, the Cabinet decided that it should become an evaluation criteria to use fluorocarbon-free products. From April 2008, government entities must fulfill the evaluation criteria when purchasing air dusters.

However, since there is danger of sparks, this does not apply to the sectors which require safety consideration. In addition, given the time to clear the stocks of fluorocarbon-based products, this is a transitional measure until March 31st 2009. For these uses and in this period, products which neither contain ozone-depleting substances nor substances with a Global Warming Potential higher than 150 are to be used.

When we maintain our equipment, it is important to choose fluorocarbon-free air dusters where suitable, or take options other than air dusters, in the light of prevention of climate change.