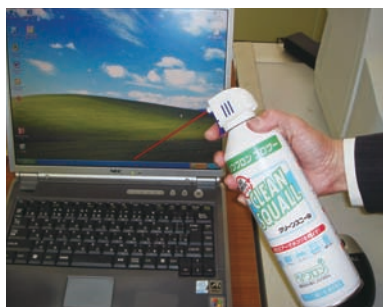


Fluorocarbon-Free Air Dusters • • • •

What is an air duster?



Air dusters, which emit a jet of high pressure gas, are used widely in maintenance of office appliances (computers, office automation equipment etc.) as well as precision equipment in factories and laboratories (electronic and optical equipment etc.), ATMs in banks and convenience stores, and automatic ticket gates etc. in stations, with the purpose of removing dust and static electricity and cooling the object. The demand for air dusters has grown strongly in parallel with the popularization

of computers etc. and in recent years approximately 6 million cans are sold every year.

Up to now, fluorocarbons have been used as the propellant in air dusters. As air dusters function by emitting the gas, all of the fluorocarbons are emitted to the atmosphere through the use of air dusters. In 2006, some 800,000 tons of CO₂ equivalent were emitted through air dusters, and this is equivalent to the CO₂ emissions of 80,000 people



under the assumption that a Japanese citizen be responsible for 10 tons.

The fluorocarbon propellants used in air dusters have changed from CFCs and HCFCs, the production of which is controlled under the Montreal Protocol, to HFCs which are one of the target gases of the Kyoto Protocol. Among various types of HFCs, there has been a shift of propellant from HFC134a with high GWP to HFC152a with lower GWP. Additionally, products using Dimethyl Ether (DME) or CO₂ as alternatives to fluorocarbons have recently begun to be marketed.

Comparison of Fluorocarbon-Based and Fluorocarbon-Free Products

	Name	Inflammability	Odor	GWP	Type	Pressure
fluorocarbon-based products	HFC134a	non-flammable	none	1430	aerosol can	low
	HFC152a	inflammable	none	124	aerosol can	low
	HFC152a/DME	inflammable	slight odor	<124	aerosol can	low
fluorocarbon-free products	DME/CO ₂	inflammable	slight odor	<1	aerosol can	low
	CO ₂	non-flammable	none	1	high-pressure gas cylinder	high