

Why do aerosols contain VOCs?

What are volatile organic compounds (VOCs)?

VOCs are carbon based chemicals which as a rule of thumb will boil at less than 250°C.

Where do volatile organic compounds (VOCs) come from?

VOCs can be separated into man-made or anthropogenic VOCs (e.g. emissions from motor vehicles, oil refining, gasoline distribution, solvent usage) and natural or biogenic VOCs (emissions from trees and vegetation which are considerable in the summer).

What is the environmental impact of VOCs?

The environmental impact of VOCs, be they natural or man-made, is their ability to react with other pollutants, particularly nitrogen oxides (NO_x), in the lower atmosphere (troposphere*) in the presence of sunlight and heat to produce ground level ozone at levels which can form photochemical smogs that can be harmful to health and damage vegetation. This process is called tropospheric ozone formation. Around 200 different VOCs have been identified which can contribute to ozone formation. Some VOCs are more reactive, and therefore cause more ozone to form than others.

Why do Aerosols contain VOCs?

The VOCs contained in aerosols serve three main functions. They generate good quality sprays, are quick drying solvents that allow the product to be applied in the correct proportions and they keep the pressure in the can constant meaning that the aerosol remains effective until it is finished.

What is the Aerosol Industry doing to address VOC emissions?

VOCs from aerosols account for a very small proportion of all VOC emissions, and where possible many products have been developed to contain the minimum amount of VOC which still allows the product to be effective. The industry is constantly striving to produce aerosols which while retaining their performance have a lower impact on the environment.

*The Troposphere is the lower atmosphere. The atmosphere is a 9,600km deep layer of colourless, odourless gases, known as air, which surrounds the Earth. The atmosphere is made up of 5 distinct levels.

METHANE: Note that although methane is a VOC it is traditionally separated. Sources of emissions include food waste, cows etc.

If you have an aerosol related question call us on tel: +44 (0) 207 828 5111
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