

# Application Article 107

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## TVOC used to monitor levels of Propylene gas

**Industry:** Furniture Foam Manufacture

**Application:** Industrial Chemical

**Customer:** Dunlop Foams, New Zealand

### Overview

An Ion Science TVOC instrument has recently been used by Dunlop Foams, New Zealand. Dunlop Foams manufacture soft foams for furniture and bedding worldwide. The Polyol chemical in Dunlop's case is used in conjunction with an intermediate gas Propylene oxide. This particular gas is a dangerous carcinogen at levels as low as 400ppm and is highly flammable; therefore constant monitoring is essential to ensure a safe working environment. The use of Polyol as a base chemical to create the foam is common across the globe for a wide number of applications.

### What Method Is Used?

Ion Science's TVOC fixed photoionisation detector has the ability to monitor Propylene oxide at such low levels, and able to send the information directly to a control system where the information can be collated and analysed. This eliminates the time costs of conventional PID detectors that have to be physically transported around the factory building by an employee or consultant, and removes then need for manual input into an excel spreadsheet after measurements have been taken.

### Why Choose Ion Science?

A significant benefit of using a TVOC instrument for this application is its ability to be integrated into system controls, whereby fans and alarms can be triggered in the factory building. Ion Science TVOC is the only fixed PID instrument that offers intrinsic safety allowing the user to be able to make repairs, whilst in flammable environments

### Key Benefits

- Control System Integration – allows the user to set fans and alarms to be triggered at dangerous levels
- Constant results for un-manned areas

For more information contact Ion Science:

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