

### **New Window Installation – VOC Concerns – “Low-VOC” Caulk Sealants**

Summer is here and home renovation projects are ramping up. Installation of new windows is a project where planning ahead of time for management of VOCs emissions will keep your home safe and reduce illness. During window installation, VOCs will be generated from several products commonly used: mineral spirits/paint thinner (used to clean window wells) and caulk sealant (used to adhere window to well). It is recommended to have good ventilation during installation, consider closing up rooms which are not getting new windows, turn off the home air handling system to prevent spread of VOCs throughout the home, and remove or cover furniture with plastic to prevent surface adsorption of VOCs.

The type of caulk often used for window sealant is a slow curing 7 – 14-day product as this gives a long lifetime to the caulk material. Caulk VOCs come from the various solvents which are mixed in with the resin. As the caulk cures, the solvents are slowly released over time. This presents an air quality concern for slow curing caulk as VOC emissions will be present for the entire length of time as it cures. “Low-VOC” caulk has been reformulated to contain 1.5% solvent. This means that the amount of the more harmful solvents e.g. xylene, ethyl benzene, petroleum distillates, etc. have been reduced and/or substituted with less harmful solvents which may not be listed on the product SDS (Safety Data Sheet). Parachlorobenzotrifluoride (PCBTF) (CAS 98-56-6) is a “Low-VOC” solvent which is commonly used as a xylene replacement. PCBTF while less hazardous than xylene is still an inhalation and skin irritant. It has a distinct aromatic odor. High levels of active air exchange and charcoal filters are recommended for the entire cure time when using caulk sealant products in a home.

#### **About Prism Analytical Technologies, Inc.**

Prism Analytical Technologies, Inc. is a leading consultative air testing laboratory in the United States that is devoted to the chemical identification and analysis of contaminants in the air. We are a recognized leader in the development and deployment of ambient air testing methodologies for Fortune 100 and 500 companies, industrial hygienists, and environmental consultants. Prism's science-based technologies and wide range of air testing support help clients solve indoor air quality, process control, industrial, and environmental challenges.