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Technical Advisory

Subject: Clarification on (Volatile Organic Compounds) VOC's

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The "Green Movement" is alive and well and living in the roofing industry. The following information may prove useful in day-to-day operations of roofing installations.

REGULATIONS

The amount of VOC's permitted in a given product is regulated by federal, state, and local government agencies. The stated purpose of these regulations is to reduce the emissions of from coatings used on building exteriors.

DEFINITION

A VOC is a chemical agent which reacts with other atmospheric pollutants and sunlight to form particulate matter and harmful ozone. This combination can create smog in urban centers. Smog is a photochemical haze caused by the action of solar ultraviolet radiation on atmosphere polluted with hydrocarbons and oxides of nitrogen. Smog is harmful to humans and the environment.

THE DIFFERENCE BETWEEN SOLVENTS AND VOC'S

All solvents are not created equal. While all VOC's are solvents, not all solvents are VOC's. For a material to be considered a harmful VOC, it must have the potential to be part of a chemical reaction leading to the formation of particulates or tropospheric ozone. If the material loses this potential before it can react with the atmosphere then it is not considered a harmful VOC. Therefore, it is possible to find "non-VOC" materials available even if they contain solvents. In turn, it is possible to find materials labeled "0g/L of VOC" even though they exhibit unpleasant or nauseating odors.

TOXICITY

Conventional wisdom might lead you to believe that materials labeled "0g/L of VOC" do not present health risks. This is not necessarily true. It is important to be aware that the reported VOC content does not address toxicity of the material. Please read product labels and Material Safety Data Sheets (MSDS) carefully. It is important that end users provide appropriate training and information to employees and insure they have MSDS available on any products in the workplace.

ODOR – VOC CONTENT AND ODOR ARE NOT NECESSARILY PREDICATED ON ONE ANOTHER

Along the same lines, a materials odor may or may not have anything to do with its toxicity. For example, many people believe that materials that have a strong or unpleasant odor are dangerous while odorless or faintly scented materials are harmless. This is not necessarily true. Carbon Monoxide is colorless, odorless, and fatal to humans.

100% SOLIDS

Materials touted as containing 100% solids are generally considered to contain little or not solvents. A coating labeled as containing 100% solids may still contain trace amounts of solvent. In addition, it can not be automatically assumed that the material contains 0g/L VOC or is not toxic. Therefore it is important to review Product/Technical Data Sheets and MSDS's on any material before use.

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