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What Is Peroxyacetic Acid?

Peroxyacetic acid, also known as peracetic acid or PAA, is an organic compound comprising a mixture of acetic acid and hydrogen peroxide in a watery solution and it is produced by a reaction between the acetic acid and hydrogen peroxide.

Hydrogen peroxide is a colorless liquid that mixes with water and is widely used as a disinfectant. The decomposition (breaking down) of hydrogen peroxide occurs when the two molecules of hydrogen peroxide break down to form two molecules of water and one molecule of oxygen gas, along with heat energy. An interesting note: As a disinfectant, hydrogen peroxide is widely used on cuts and scrapes and produces bubbling (caused by the formation of oxygen gas molecules). The bubbling is quite rapid on cuts because of the presence of an enzyme (a protein catalyst, which is a molecule that speeds up a reaction) in blood, known as catalase.

Acetic acid, also known as ethanoic acid, is an organic compound that is found naturally in vinegar and takes the form of a colorless liquid. Vinegar is roughly 3 to 9% acetic acid by volume, making acetic acid the main component of vinegar, apart from water. The name acetic acid derives from acetum, the Latin word for vinegar, and is related to the word acid itself. According to the United States Environmental Protection Agency (EPA), acetic acid is a biodegradable chemical compound naturally present in all living organisms that readily breaks down into carbon dioxide and water.

All of this is important to understand, because we believe that you should know as much about the chemistry as we do. With this general understanding of peroxyacetic acid and its components, we can now tell you that our decontamination agent is Actril® Cold Sterilant (Actril®), which is a solution comprising 1% hydrogen peroxide, 0.08% peroxyacetic acid and 98.92% inert ingredients, consisting of acetic acid and water. Actril® is a ready-to-use surface disinfectant that is extremely effective, even in high bio-load environments, and, unlike bleach, which quickly “deactivates” in the presence of organic material such as blood, the Actril® chemistry continues to form peroxyacetic acid even as it works to disinfect. At this point, you now have enough background knowledge to independently determine that, at the conclusion of the prescribed AMBUstat™ decontamination process, the byproducts of Actril® are carbon dioxide, oxygen and water, meaning no toxic residues, or, arguably, residues, whatsoever, remaining on your surfaces.

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Contact us today and we will introduce you to an AMBUstat distributor in your area.