



PERSNICKETY® BRAND OX-PELLETS® OXIDIZING/POLISHING MEDIA FOR MALODOR CONTROL - PATENTED, BREAKTHROUGH CHEMISTRY

PERSNICKETY® OX PELLETS® provide demand dependent oxidizing properties and sustained release polishing properties, simultaneously. The result is safe, extremely effective, broad-spectrum malodor control. Each technology has a critical role to play.

Oxidizing – Chlorine Dioxide Technology

Chlorine dioxide (ClO₂) is an extremely powerful oxidizing agent. For example, one pound of chlorine dioxide is equivalent in oxidation power to 3.8 pounds of potassium permanganate. Because chlorine dioxide reacts selectively and primarily with only the most offensive odor producing compounds (hydrogen sulfide [H₂S], organic sulfurs, organic amines, petroleum distillates), PERSNICKETY® OX PELLETS® will normally provide a much longer service life than competitive products such as activated carbon. Similarly, chlorine dioxide will remain intact longer than chlorine, hypochlorite, peroxide and permanganate. Unwanted reactions do not occur. Power is not needlessly spent. Chlorine dioxide remains available and ready on demand.

In contrast to chlorine and hypochlorite, chlorine dioxide does not react with ammonia and is not a chlorinating agent. It typically reacts with organics as an oxidant with no Trihalomethanes (THMs) or chlorinated by-products formed. Hydrogen sulfide is rapidly oxidized to inorganic sulfate; whereas organic sulfides react with chlorine dioxide to form sulfonyl compounds and oxygen containing by-products, thus effectively eliminating many odors. When sufficient chlorine dioxide is used to fully oxidize phenol, the primary products are converted to respective carboxylic acids. Primary and secondary amines react very slowly or not at all with chlorine dioxide, whereas chlorine dioxide will rapidly oxidize tertiary amines producing a secondary amine and an aldehyde. Chlorine dioxide has relatively low oxidizing activity toward olefins. Alcohols and carboxyl compounds react more slowly to produce carboxylic acids. The breaking of carbon – carbon bonds is generally not extensive in most reactions.

Polishing – Countervailant® Technology

This technology protects against the escape of malodors which can not be oxidized or readily oxidized. It functions synergistically with the technology to which it is wed. Countervailant® technology is highly specialized, complex and broadly useful chemistry. It incorporates neutralization technology, but expands considerably beyond it. Polymeric adsorption is a facet. This involves the building up of malodor molecules via electrostatic attractions and Van der Waals forces so that they are not recognized as malodors. The process of esterification is also incorporated. Acids and alcohols react to form esters. These esters normally have a pleasant scent. Countervailant® technology is effective in dealing with malodors in both liquid and gaseous phases.