



Anolyte toxicity on surfaces after spraying/fogging.

Envirolyte Industry International Ltd.

Anolyte is a mixture of potent oxidizers which includes molecular chlorine as well as chlor-acid anions and other oxidants: Cl_2O , ClO_2 , HClO , OH , O_3 , H_2O_2 . Active chlorine compounds form free radicals ClO^\cdot according to the following model $\text{ClO}^\cdot + \text{HOCl} \rightarrow \text{UClO} + \text{ClO} + \text{H}^+$.

Then active radicals ClO^\cdot react to produce atomic oxygen and OH radicals: $\text{ClO} + \text{ClO}^\cdot + \text{OH} \rightarrow 2\text{Cl}^\cdot + 2\text{O} + \text{OH}$.

All these oxidizers can ensure the destruction of biopolymers in any microorganisms and oxidize their constituent elements such as phenols, formaldehyde, phosphorous-organic, metal-organic and sulphur-containing compounds. As a result, no halogen-containing compounds are formed. Thus the destruction of microorganisms is ecologically friendly unlike cases when other chemical substances are used.

It is impossible that any toxic compounds should appear in the process of anolyte treatment of various surfaces, as the amount of anolyte used is extremely small (1-2% to the amount of treated products), its toxicity (4th grade) low enough to use it for health purposes in humans and animals.

So, as active chlorine in anolyte is used up in oxidizing different organic matter and its potential relaxes to the normal water level; and other ions in negligible amounts are gradually reduced within ~2 hours, forming full oxides or salts usual for water content, we may confidently claim that by the end of the process anolyte is relaxed into common water.

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