



## NEXT GENERATION OF CLEANING, DISINFECTING AND SANITIZING

- Cleaning and disinfecting with PCS Neutral pH stabilized equilibrium of 50% Hypochlorous acid and 50% Sodium hypochlorite.
- PCS Hypochlorous acid and Sodium Hypochlorite Neutral pH products decompose upon drying to harmless salt residues indoors and react in sanitary sewer systems, decomposing in seconds to minutes and do not add to the detergent pollutants in wastewater treatment facilities.
- Safer category four disinfectants, meaning labels require no warning or caution symbols.
- Safer for staff, the environment and hospital equipment.
- PCS has an NPH process for institutions, schools, hospitality and hospital wide cleaning and disinfecting.

Toxic Effects Promoted by a Commercial Detergent on the Germination and Initial Development of Cucumber Seedlings (*Cucumis sativus* L.)

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Detergent is a significant pollutant that poses serious risks to natural ecosystems. These results suggest that the excessive use or improper disposal of commercial detergents can have negative effects on living organisms, highlighting the importance of control and regulation measures to mitigate the environmental risks associated with their use.

FROM CLEANLINESS TO CONTAMINATION: INVESTIGATING THE TOXICITY OF A COMMERCIAL DETERGENT USING ARTEMIA SALINA L. AS A MODEL ORGANISM

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### Abstract

Detergents are widely used in industries and households for cleaning surfaces and objects. However, after use, the foam from this compound often ends up contaminating aquatic ecosystems, which can trigger problems such as eutrophication and a reduction in available oxygen levels.

**CONCLUSION:** The commercial detergent, despite being labeled as biodegradable, has proven to be extremely toxic to *A. salina*, an organism that plays a crucial role in the food chain of saline aquatic environments. It is important to note that the toxic effects observed in this study can be extrapolated to freshwater environments where other microcrustaceans are also present. These findings raise serious concerns, as toxicity in key organisms of the food chain can result in significant disruptions in ecosystem balance. In this context, it is crucial to conduct further research with the aim of developing more biodegradable and environmentally friendly detergent products to preserve the integrity of aquatic ecosystem.