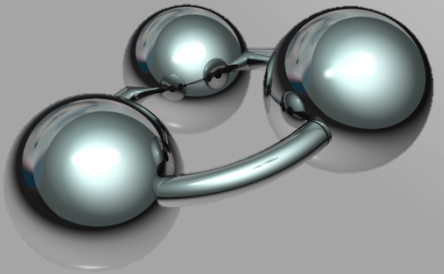




HENCO SOLUTIONS

HENCO 6050 – Environmental clean up





Made in Denmark

HENCO SOLUTIONS ApS Research and Development is responsible for the creation of new products and technologies.

HENCO SOLUTIONS ApS is involved in the creation of tailored chemical and technological solutions for our corporate clients.

Our products represent the highest quality and exceptional performance combined with an excellent environmental and safety profile.

Our services are provided by our certified technicians.

HENCO 6050 - Environmental Clean-up

A New Framework for Green Chemistry...

- ❖ HENCO SOLUTIONS ApS has together with our partner developed its technology based on refined, fermentation-derived, bioactive stress proteins that are formulated with surfactants. The proteins are processed to form tight complexes with surfactants (Protein-Surfactant Complex, or PSC) and have a synergistic effect on the surfactant's activity.

What HENCO 6050 is NOT:

- ❖ HENCO products are cell-free, do not contain any bacteria, and are not based on any particular enzymes.



*Effluent lagoon in dairy farm before and after.
Treated with HENCO 6050 for 3 weeks.*



Please feel free to contact us, for any further information

HENCO 6050 technology has two fundamental effects and the attributes of each are:

- ❖ A key distinguishing feature of HENCO 6050 technology is that it synergistically enhances surface activities of synthetic products with certain biologically derived materials
- ❖ HENCO 6050 proteins reduce the number of surfactants needed to do the same amount of work as the surfactant alone.
- ❖ Improving surfactancy include better “wetting” of surfaces.
- ❖ Dramatically outperforms many harsh cleaners, especially as in cleaning of oils and greases.
- ❖ The protein-surfactant is stable and functional at > 200°F.
- ❖ Although HENCO 6050 product are nearly neutral per se, they retain their activity in a broad range of pH 1 to 13.
- ❖ HENCO’s products are compatible with some strong oxidants, such as hydrogen peroxide (over 15%) or hypochlorite bleach.
- ❖ HENCO’s products eliminates many odors immediately.
- ❖ Dramatically reduces surface tension, interfacial tension and critical micelle concentration (up to 2 logs) of many surfactants.
- ❖ Oils and greases are converted into additional surfactants, multiplying the beneficial effects.



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HENCO 6050 Biological

- ❖ HENCO products affect bacterial metabolism to accelerate the breakdown by oxidation (digestion) of organic material, such as fats, oils greases, diesel, etc.
- ❖ Not only are organic contaminants digested more rapidly, but more completely to carbon dioxide and water, which means in a wastewater treatment plant there is a significant reduction in sludge volume.
- ❖ Biofilm growth is controlled and removed in many other situations, such as cooling towers, wastewater sludge conditioning, contaminated porous surfaces, sewers and industrial processes.
- ❖ Biological effects are based on natural resident bacteria (microbes) populations that are ubiquitous in the environment as HENCO 6050 do not have any added bacteria.
- ❖ The technical term for the biological effect is uncoupling of oxidative phosphorylation.



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HENCO 6050 Safety profile

- ❖ HENCO 6050 is registered by National Safety Foundation (NSF) Standard 60 for use in potable water applications
- ❖ HENCO 6050 is certified by the U.S. Coast Guard as safe for maritime applications
- ❖ HENCO 6050 is certified by the International Maritime Organization, as safe for ocean chemical cargo tank cleaning
- ❖ HENCO 6050 are completely biodegradable
- ❖ Products are manufactured in a food processing facility
- ❖ Products meet FDA guidelines and uses ingredients that are acceptable for the use in food grade applications in accordance with FDA 21 CFR 182 and 184 GRAS (Generally Recognized As Safe) and/or FDA 21 CFR 178.3400



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“keeps on working” phenomenon

- ❖ The combined Biological and Surfactancy effects means that the wastewater processing starts at the point of use for cleaners. This is based on the dual mode effects of the PSC where biochemical transformation are synergistically assisted by high surface activity.
- ❖ Most people are aware of recycling of solid waste. What most of us don't think about are the costs associated with the wastewater treatment plant that processes the liquids we send from our kitchens, bathrooms and industrial processes.
- ❖ The costs to municipalities to build and operate wastewater treatment facilities are huge. HENCO 6050 can reduce those operating costs dramatically, essentially for free, by starting the breakdown of oils, greases, etc. as they are poured down the drain after cleaning. Septic systems can be treated by when HENCO 6050 based cleaners and products are flushed into drains that feed those systems. Finally, HENCO 6050 keeps on working in bathrooms to eliminate persistent odors.



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”Keeps on working” phenomenon

- ❖ In as much as the product *keeps on working*, so to speak, it is important to understand that it takes a critical level of the PSC in a system for it to have an effect. This means that the biological effects would be noted only in closed, somewhat controlled, systems. These include sewers and wastewater systems, cooling towers, etc. The PSC’s noted biological effects would be observed only at adequate dosage levels. If the product is discharged somehow into the environment where it becomes infinitely dilute, there would be none of the above noted effects, eliminating concerns of disruptions to ecosystems.
- ❖ Further, the PSC is highly biodegradable and therefore it is not persistent in the environment, meaning that it does not accumulate.



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