

One-Stop Biosecurity Solution for Modern Livestock Farming

Enhancing Farm Hygiene for Poultry, Swine, and Dairy Operations

In 2026, biosecurity can no longer be ignored as the livestock industry continues to face persistent and costly disease challenges. Avian Influenza (AI) outbreaks are still recurring in poultry operations, while African Swine Fever (ASF) remains a major threat to pig farms with no effective cure available. Poor biosecurity not only increases mortality rates and accelerates disease transmission within and between farms, but also negatively impacts feed intake, growth performance, and overall livestock efficiency, ultimately eroding profit margins. Recognizing these challenges, PeterLabs, in partnership with The Schippers Group (MS Schippers)—a leading international specialist in livestock hygiene, biosecurity solutions, and pest control have offers a comprehensive one-stop biosecurity program designed to minimize these risks, reduce operational challenges, and ultimately improve farm productivity and profitability.

If biosecurity is not properly managed, with a small increase in mortality of just 5% can result in a significant loss per production cycle, including additional costs from poor growth performance, higher feed conversion ratio (FCR), and treatment expenses. These losses often go unnoticed until they accumulate into serious profit reduction.

When compared to this, the cost of implementing a proper biosecurity program is relatively low. In reality, farmers are not spending on hygiene but they are safeguarding their revenue. The gap between prevention cost and disease-related losses is substantial, making biosecurity one of the most cost-effective investments on the farm, driving clear return-on-investment (ROI) thinking and ultimately influencing purchase decisions.

One of the most overlooked biosecurity risks in modern livestock farming is waterline contamination, particularly the formation of biofilm inside pipelines. Biofilm acts as a protective layer where harmful pathogens can survive and multiply, reducing the effectiveness of medications delivered through drinking water and continuously exposing animals to infection risks, even when the farm appears clean.

Because these pathogens remain hidden within the pipeline system, standard cleaning and disinfection are often insufficient to eliminate them. This makes waterline hygiene a critical control point that many farms fail to address. As a result, solutions like Di-O-Clean are not optional, but essential, playing a vital role in breaking the cycle of contamination and ensuring consistent animal health and performance in a complete biosecurity system.

Step 1: Deep Cleaning – The Foundation of Biosecurity

MS TopFoam Power is a high-strength alkaline foam detergent specially formulated for deep removal of organic contamination in livestock housing.

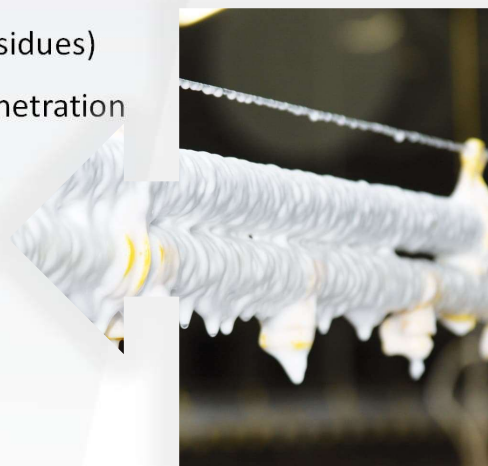


Sodium hydroxide, GLDA, wetting agents and corrosion inhibitors



✓ Key Features & Benefits

- ◆ Removes up to 99.9% of organic contamination (manure, fat, feed residues)
- ◆ Deep cleaning performance with added humidifiers for enhanced penetration
- ◆ Superior adhesion with up to 60 minutes contact time
- ◆ Fresh eucalyptus scent improves working environment
- ◆ Non-corrosive
- ◆ GLDA-based formulation – safe, green & biodegradable





Efficiency & Cost Benefits

- 💰 20–50% reduction in working time (faster cleaning process)
- 💧 Up to 50% savings in water and wastewater
- 📉 30% lesser of product consumption vs conventional cleaners

Dosage:

✓ Dilution: 1 – 2% (10-20 ml, add water up to 1 litre), depending on the type of soiling

Cleaning before disinfection

Immediately after emptying	After pressure washing	Most important step After cleaning with detergent	After disinfection
50,000,000 pathogens/cm ²	20,000,000 pathogens/cm ²	100,000 pathogens/cm ²	<500 pathogens/cm ²

Figure 1.0: Cleaning steps with results given by MS TopFoam Power

Without proper foam cleaning, disinfection cannot achieve optimal results, making this step the most critical in any hygiene protocol.



Step 2: Surface Disinfection – Breaking the Infection Cycle

Once surfaces are clean, the next step is to eliminate harmful pathogens that cause disease outbreaks.

MS MegaDes Kiemkill is a powerful oxidizing disinfectant in powder form designed for complete elimination of pathogens in livestock environments.



Penta potassium bis
(peroxymonosulphate)bis(sulphate)
Sodium dichloroisocyanurate

✓ Key Benefits

- ✿ Broad-spectrum effectiveness – kills bacteria, viruses, fungi, and yeast
- ✿ Fast-acting formulation for rapid pathogen reduction
- ✿ Biodegradable: no impact on biogas production
- ✿ Color indicator provides a visual cue for efficacy
- ✿ Proven efficacy based on international disinfection standards

Dosage:

- ✓ 1% (add water, until reaching 10 litres, to 100 g of product)

Suitable for:

- ✿ Animal housing (floors, walls, pens)
- ✿ Equipment and tools
- ✿ Entry points (foot dips / boot baths)
- ✿ Biosecurity control areas



Application Methods:

- Spraying
- Footbath



Regular disinfection using Kiemkill will significantly reduces pathogen load, helping to prevent disease transmission within and between farms.

Step 3: Waterline Hygiene – Controlling Invisible Risks

While surfaces may appear clean, water systems often remain a hidden source of contamination due to biofilm formation.

Di-O-Clean Combi is a two-component oxidative disinfectant designed for cleaning and disinfection of livestock drinking water systems.



A

B

Sodium chlorite
Sodium bisulfate



Key Benefits

- * Removes and prevents biofilm formation in pipelines
 - * Kills bacteria, viruses, yeast, and fungi
 - * Improves water quality and feed intake
 - * No effect on water taste or smell
- * Long-lasting protection with continuous dosing
- * Works throughout the entire water system

Mixing procedure: To prepare Di-O-Clean Combi add Di-O-Clean Combi B to Di-O-Clean Combi A. Close the lid properly, and shake gently. Wait at least 60 minutes before use.

Dosage:

- ✓ Drinking water system: 100 ml of ready to use solution (A+B) per 10 L water.
- ✓ Continuous treatment: 55 ml ready to use solution (A+B) per 1000 L water.



Chat 1: Animal housing cleaning procedure by MS TopFoam, MS MegaDes Kiemkill and DI-O-Clean

Combining MS TopFoam Power, MS MegaDes Kiemkill, and Di-O-Clean into one integrated biosecurity system for cleaner farms, healthier livestock, and better performance.

An effective biosecurity program is essential in safeguarding animal health, ensuring production efficiency, and minimizing the risk of disease introduction and spread. By consistently implementing strict hygiene protocols, controlling movement of people, animals, and equipment, and maintaining continuous monitoring and staff awareness, the overall resilience of the operation is significantly strengthened.

现代化畜牧业一站式生物安全解决方案 全面提升家禽、养猪及奶牛场的生物安全与卫生管理

到了2026年，随着畜牧业持续面对高发且代价高昂的疾病威胁，生物安全已不容忽视。禽流感（AI）疫情仍不断在家禽养殖场发生，而非洲猪瘟（ASF）由于至今仍无有效治疗方法，依然是养猪业面临的重大威胁。生物安全管理不足不仅会提高死亡率，加速疾病在场内及场与场之间传播，还会影响动物采食量、生长表现及整体生产效率，最终侵蚀养殖利润。

有鉴于此，PeterLabs与全球领先的畜牧卫生、生物安全解决方案及害虫防治专家**The Schippers Group (MS Schippers)** 携手合作，提供一套全面的一站式生物安全方案，旨在降低疾病风险、减少营运挑战，并最终提升农场生产力与盈利能力。

如果生物安全管理不到位，即使死亡率仅增加**5%**，每一个生产周期都可能造成可观的经济损失，其中包括生长表现下降、料肉比（FCR）恶化以及治疗费用增加等额外成本。这些损失往往不会立即被察觉，而是在长期累积后，逐渐演变成严重的利润流失。

现代化畜牧业中最容易被忽视的生物安全风险之一，就是饮水管线污染，尤其是管道内部形成的**生物膜（Biofilm）**。生物膜为有害病原体提供了一个受保护的环境，使其能够持续存活和繁殖，不仅降低经饮水系统投喂药物的效果，也会持续增加动物感染疾病的风险，即使农场表面看起来十分干净。

由于这些病原体隐藏于饮水管线内部，传统的清洗与消毒方式往往不足以彻底清除它们。因此，饮水管线卫生已成为许多农场容易忽略、却至关重要的生物安全控制点。正因如此，像**Di-O-Clean**这样的解决方案已不再是可有可无的选择，而是完整生物安全体系中不可或缺的重要环节，能够有效打破污染循环，确保动物持续维持健康与最佳生产表现。

步骤 1: 深度清洁 - 基础生物安全

MS TopFoam Power 是一种高强度碱性泡沫清洁剂，专门配制用于深层去除畜牧舍内的有机污染物。



氢氧化钠、GLDA、
润湿剂及缓蚀剂



✓ 主要特点与优势

- ◆ 可去除高达99.9%的有机污垢（如粪便、油脂及饲料残留）
- ◆ 具有深层清洁性能，并添加保湿成分，以增强渗透效果
- ◆ 优异的附着性能，可保持最长60分钟的接触时间
- ◆ 清新的尤加利香气，有助于改善工作环境。
- ◆ 无腐蚀性
- ◆ GLDA 环保配方，安全、环保、可生物降解





效率与成本效益:

- 💰 减少 20–50% 作业时间（加快清洁流程）
- 💧 节省高达50%的用水量及废水排放
- 📉 与传统清洁剂相比，产品用量可减 30%。

剂量:

✓ 稀释比例: 1 – 2%（每10 – 20毫升产品，加水至1公升），视污垢类型而定。



图 1.0: 使用 MS TopFoam Power 的清洁步骤及清洁效果

若未进行适当的泡沫清洗，消毒将无法达到最佳效果，因此这一步骤是任何卫生管理程序中最关键的环节



步骤 2: 表面消毒 - 切断感染循环

完成表面清洁后，下一步就是彻底消除引发疾病暴发的有害病原体。

MS MegaDes Kiemkill 是一种强效氧化型粉末消毒剂，
专为彻底消除畜牧环境中的病原体而研发。



过一硫酸氢钾复合盐
二氯异氰尿酸钠

✓ 主要功效

- * 广谱高效——有效杀灭细菌、病毒、真菌及酵母菌
- * 快速作用配方——迅速降低病原体数量，实现高效消毒。
- * 可生物降解——不影响沼气（Biogas）生产过程
- * 颜色指示功能——通过颜色变化直观显示产品活性状态，便于判断消毒效果。
- * 国际标准验证——消毒效果经国际认可的消毒标准测试与验证。

剂量:

✓ 1% (每100克产品加水稀释至总容量10公升)

适用范围:

- ✦ 畜禽舍（地面，墙面，栏舍）
- ✦ 设备与工具
- ✦ 出入口消毒（脚踏消毒池/鞋具消毒）
- ✦ 生物安全管制区域



使用方式:

- 喷洒
- 鞋浴



定期使用 **Kiemkill** 进行消毒，可显著降低环境中的病原体负荷，有助于预防疾病在场内及场与场之间传播。

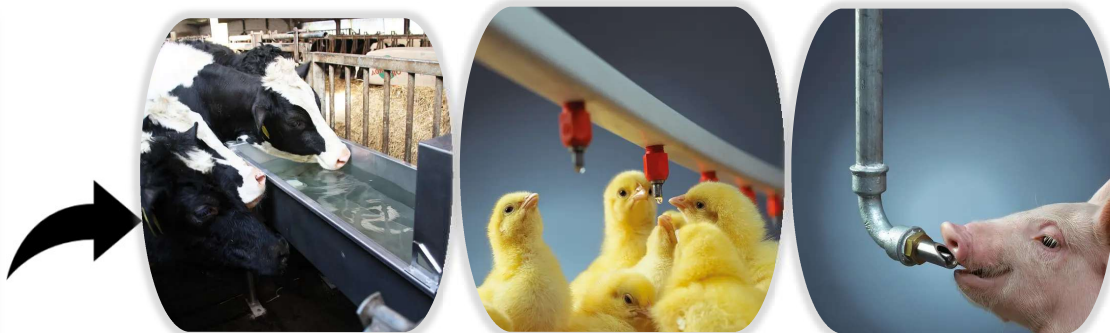
步骤 3: 饮水管线卫生-控制看不见的风险

即使表面看起来洁净，饮水系统仍可能因生物膜形成而成为隐藏的污染源。

Di-O-Clean Combi 是一款双组分氧化型消毒剂，专为畜禽饮水系统的清洁与消毒而设计，可有效维持饮水系统卫生。



亚氯酸钠
硫酸氢钠



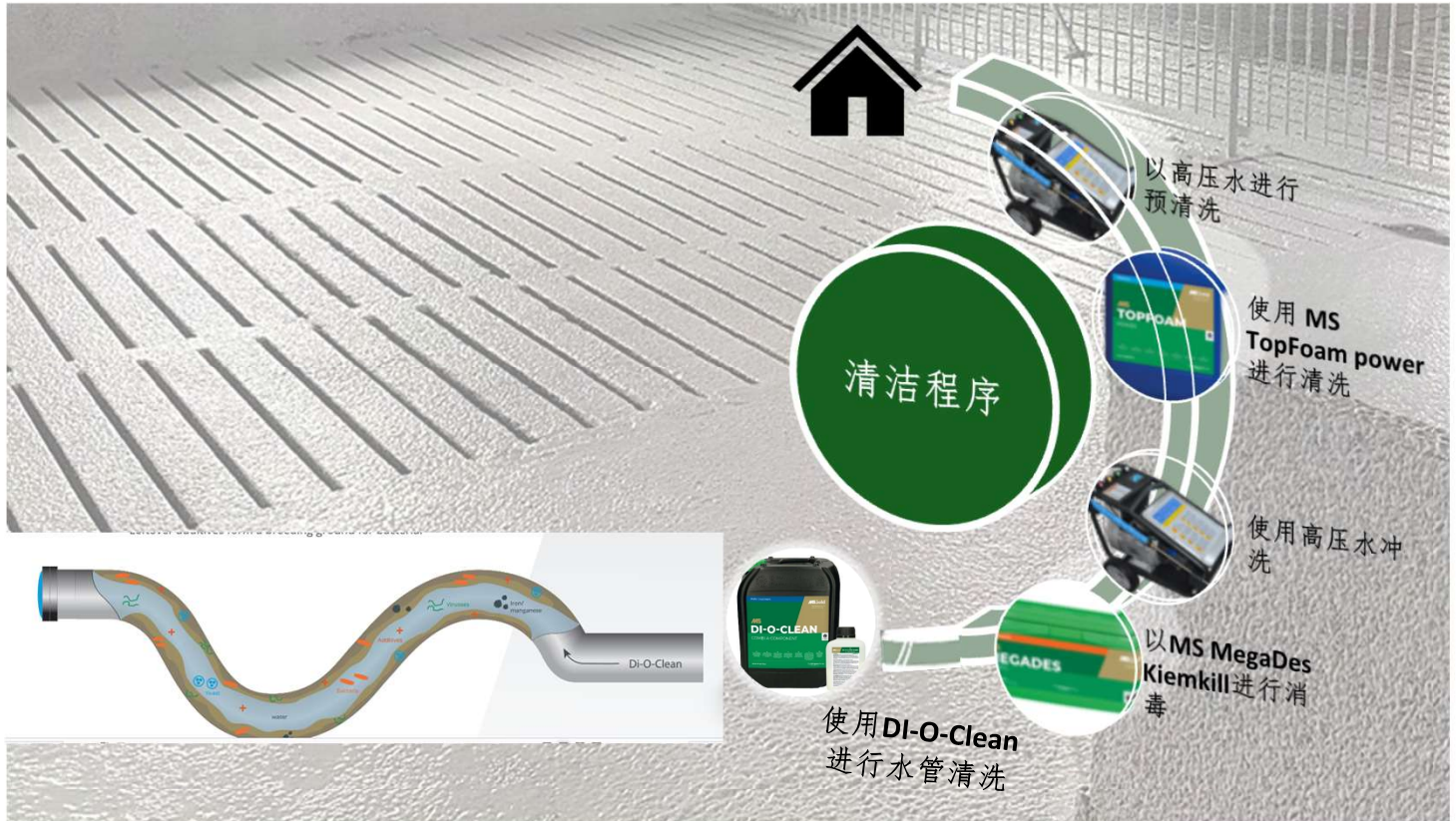
✓ 主要功效

- ✧ 有效去除并防止管线内生物膜形成。
- ✧ 有效杀灭细菌、病毒、酵母菌及真菌。
- ✧ 改善饮水水质，促进采食与饮水表现。
- ✧ 不影响饮水的味道与气味。
- ✧ 持续投加可提供长效保护，维持饮水系统卫生。
- ✧ 作用覆盖整个饮水系统，实现全面消毒防护。

混合步骤: 配制 Di-O-Clean Combi 时，将 Di-O-Clean Combi B 加入 Di-O-Clean Combi A 中。盖紧容器盖，并轻轻摇匀。混合后静置至少 60 分钟，使产品充分活化后再使用。

使用剂量:

- ✓ 饮水系统: 每 10 公升水加入 100 毫升已配制好的 Di-O-Clean Combi (A+B) 消毒液。
- ✓ 持续处理: 每 1,000 公升水加入 55 毫升已配制好的 Di-O-Clean Combi (A+B) 消毒液。



图表 1: 使用 MS TopFoam, MS MegaDes Kiemkill and DI-O-Clean 清洗畜禽舍的清洁步骤

将 MS TopFoam Power、MS MegaDes Kiemkill 及 DI-O-Clean 整合为一套完整的生物安全管理系统，为养殖场打造更洁净的环境、保障畜禽健康，并提升生产效益。

完善且有效的生物安全计划，是保障动物健康、提升生产效率，以及降低疾病传入与传播风险的重要基础。透过持续落实严格的清洁与消毒程序、管控人员、动物及设备的进出，并结合持续监测与员工生物安全意识培训，可显著提升养殖场整体的生物安全防护能力与营运韧性。