Vapco Products, Inc.

TECHNICAL DATA REPORT

Foaminator: Delayed Foaming Condenser Coil Cleaner

Part Number: **FM-1 FM-1B** | Recommended Use: A time-delayed, high-alkaline concentrated cleaner designed to soak deep into the center of outdoor HVAC condenser coils before expanding to push out dirt and debris.

1. Product Overview & Key Features

Foaminator is a super-concentrate, high-alkaline cleaner featuring a unique delayed foaming mechanism. This proprietary design allows the solution to penetrate deep into multi-row condenser coils for 60 to 90 seconds. Once deep saturation is achieved, the chemical reaction triggers, expanding a dense yellow/white foam outward to carry embedded dirt, grease, and oxidation out from the core of the coil.

Compliance and Performance Highlights

- Features a unique **Delayed Foaming** action (60 to 90 seconds) for maximum coil penetration.
- Utilizes a high-viscosity surfactant blend to create a **Non-Atomizing Stream**, reducing user exposure and blow-back risk.
- Powerful high-pH alkaline formula, highly effective against industrial grease, impacted cottonwood, and heavy oxidation.
- Super Concentrate formula offers exceptional economy, with standard dilutions ranging from **5:1 to 7:1** (Water:Cleaner).
- Designed specifically for use on **outdoor copper tube / aluminum fin** condenser coils.

2. Technical Data

Physical & Chemical Properties	
Active Ingredients	Sodium Hydroxide (Corrosive)
Product Base/Resin System	High-pH Alkaline Concentrate
Color/Appearance (FM-1)	Yellow Liquid Concentrate (FMB-1 is Blue)
Scent	Mild Chemical
Biodegradability	Biodegradable

Physical & Chemical Properties	
Viscosity	High Viscosity (Super Concentrate)

Application & Performance Metrics	
Recommended Dilution (General)	5:1 to 7:1 (Water:Cleaner)
Foaming Delay Time	60 to 90 seconds
Dwell Time (Critical Wait)	5 to 8 minutes
Application Method (Best)	Pump-up Sprayer
Cleanup Solvent / Rinsing	Thorough rinsing with water is mandatory
Estimated Peel Strength (N/A)	Not Applicable (Coil Cleaner)

Material Incompatibility Warning: DO NOT use this high-pH alkaline cleaner on **Micro-Channel Coils** or **Indoor Evaporator Coils**. High-pH is unsuitable for all-aluminum micro-channel coils, and the strong fumes and required high-volume rinsing make it unsafe for use indoors.

3. Safety Data Sheet (SDS) Summary

Hazard Identification (GHS Classification)	
Signal Word	Corrosive
Physical Hazards (H-codes)	UN3266, Corrosive Liquid, Basic, Inorganic, N.O.S. (Shipping Classification)
Health Hazards Summary (H-codes)	Causes Severe Burns (Contains Sodium Hydroxide)
Reproductive Toxicity classification	Not detailed in summary
California Prop 65 Warning	None stated in summary

Handling, Storage, and First Aid	
Storage Temperature Limit	Store in a cool, dry area. Do not allow to freeze.

Handling, Storage, and First Aid		
Key Safe Handling Precautions	Always wear proper PPE: goggles, chemical-resistant gloves, and long sleeves. Flood the ground beneath the unit with water before and after cleaning to protect vegetation.	
First Aid (Ingestion) instructions	Immediately call a poison center or physician. DO NOT induce vomiting.	

4. Frequently Asked Questions (FAQs)

Q: Why doesn't it foam immediately when I spray it?

A: This is by design. Foaminator features a "Delayed Foaming" mechanism, remaining in a penetrating liquid state for 60 to 90 seconds to soak deep into the center of the coil before the reaction triggers and pushes debris out from the inside.

Q: Why is the liquid so thick? It shoots like a stream, not a mist.

A: We use a high-viscosity surfactant blend to create a Non-Atomizing Stream. This is a safety feature that ensures the chemical lands exactly where you aim it, preventing atomization into a mist that could blow back onto the user in windy conditions.

Q: What is the best dilution ratio?

A: It depends on the job: 3:1 to 4:1 for industrial grease, 5:1-7:1 for general maintenance, and 8:1-10:1 for light residential maintenance.

Q: Can I use this on indoor Evaporator Coils?

A: The short answer is NO. Evaporator coils are sensitive to pH, and Foaminator requires heavy rinsing not easily performed indoors. Use a suitable evaporator-specific cleaner instead.

Q: Is this safe for Micro-Channel/Mini Splits coils?

A: NO. Foaminator is a high-pH alkaline cleaner designed only for outdoor condensers. It is not suitable for all-aluminum micro-channel coils, which require a pH-neutral cleaner.

Q: Do I need PPE? It says "Non-Atomizing."

A: YES. While the non-atomizing stream reduces blow-back risk, this product contains Sodium Hydroxide and causes severe chemical burns. Always wear goggles, chemical-resistant gloves, and long sleeves.