# LactiGo Clinical Ingredient Perspective: Phenoxyethanol

At LactiGo, we prioritize formulation safety, regulatory compliance, and ingredient quality. In response to questions regarding phenoxyethanol, we would like to provide clear clinical context—particularly around how this ingredient is evaluated in online rating systems.

### 1. Safety Profile & Regulatory Consensus

Phenoxyethanol is one of the most extensively studied and widely used preservatives in topical formulations globally. Regulatory bodies consistently permit its use in leave-on cosmetic products at concentrations up to 1%.

LactiGo's formulation utilizes phenoxyethanol **well below this established limit**, aligning with decades of documented safe use in topical creams and gels.

**Context:**
Online databases often present simplified "hazard-based" scores and do not reflect **real-world use conditions, concentration levels, or long-term safety data in topical applications**.

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### 2. Inhalation vs. Topical Exposure

A significant portion of the "moderate concern" classification seen in rating systems relates to **inhalation exposure**, particularly in aerosolized products such as sprays.

LactiGo is a **topical gel**, not an aerosolized formulation, and therefore does not present this exposure pathway.

**Context:**
Rating systems frequently aggregate all potential exposure routes into a single score and do not differentiate between **inhalation risk vs. topical application**, which are evaluated very differently in toxicology.

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### 3. Impurity Considerations & Ingredient Quality

Some concerns associated with phenoxyethanol relate not to the ingredient itself, but to **potential impurities found in lower-grade material**, such as:

- Free phenol
- Ethylene oxide residues
- 1,4-dioxane

At LactiGo, these risks are addressed through **strict sourcing and quality control standards**:

- Use of **high-purity cosmetic/pharmaceutical-grade phenoxyethanol** (e.g., BASF Protectol® PE, Clariant Phenoxetol®)
- Mandatory **certificates of analysis with impurity profiling**
- Internal specifications exceeding typical regulatory requirements (e.g., free phenol <0.1%, ethylene oxide <1 ppm)

**Context:**
Public ingredient databases do not evaluate:

- Supplier quality
- Manufacturing processes
- Impurity thresholds

As a result, they cannot distinguish between **lower-grade industrial material and high-purity pharmaceutical-grade ingredients**.

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### 4. Functional Role in the Formula

Phenoxyethanol is included to ensure **product integrity and safety over time**, preventing microbial growth in a topical formulation.

It was selected because it is:

- Globally accepted across regulatory bodies
- Effective at low concentrations
- Compatible with sensitive formulations

Alternative preservative systems often introduce **greater variability, reduced stability, or additional labeling concerns**.

**Context:**
Ingredient rating platforms do not assess **formulation performance or preservation requirements**, which are critical to ensuring product safety during real-world use.

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**Summary**

Phenoxyethanol in LactiGo:

- Is used at concentrations well below global safety limits
- Has decades of safe use in topical applications
- Is sourced at high purity with strict impurity controls
- Serves a critical role in maintaining product safety

While online ingredient databases provide general awareness, they are not designed to assess **dose, delivery method, ingredient quality, or formulation context**.

LactiGo's approach integrates:

- Established toxicological science
- High-quality sourcing standards
- Purpose-driven formulation design

to ensure both safety and performance.

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