

Laundry Detergent

Enzyme-Surfactant System · Enzyme-Surfactant System · with Alkaline pH 9–11, 50 ml per Load

KEY BENEFITS

— Enzyme-surfactant system	protease, lipase, and amylase activity targets protein, fat, and starch stains — the full soiling spectrum of healthcare linen, industrial uniforms, and educational facility textile loads.
— Alkaline pH 9–11	optimises enzyme activity and enhances surfactant penetration simultaneously — the dual mechanism that delivers first-pass clean rates that reduce rewash frequency.
— 50 ml per load	precise, auditable dosing — eliminates the silent over-dosing that adds 30–50% to detergent cost in unmonitored institutional laundry operations.
— Industrial machine compatible	front-load, top-load, and continuous batch washer deployment without foam management complications.
— Hard water stable	maintains full enzyme and surfactant efficacy in facilities with water TDS above 500 ppm — the standard condition across most Indian institutional water supplies.
— Machine types	Compatible with front-load, top-load, and continuous batch washers. Controlled foam profile prevents overflow in standard commercial laundry equipment.

AT A GLANCE

pH	9.0–11.0 (alkaline)
Dose per load	50 ml
Fragrance	Fresh / neutral — institutional laundry appropriate
Pack size	5 Litres concentrate
Shelf life	18 months from date of manufacture, unopened
Safe on	Cotton, poly-cotton, synthetics, institutional linen and uniforms
Application	Detergent drawer or drum addition

HOW TO USE

- 1 Dosing**
Add 50 ml to the detergent drawer or directly to the drum before loading. Use measured dispensing equipment in high-volume operations to ensure consistent dosing.
- 2 Pre-soak (heavily soiled loads)**
For blood, oil-contaminated, or high-soil-load items, pre-soak in a solution of 50 ml per 10 litres of water at 40°C for 15–20 minutes before the main wash cycle.
- 3 Temperature**
40–60°C for standard institutional linen. 60–90°C for infection control loads or items requiring thermal disinfection per healthcare laundry protocols.
- 4 Machine types**
Compatible with front-load, top-load, and continuous batch washers. Controlled foam profile prevents overflow in standard commercial laundry equipment.
- 5 Delicate fabrics**
Do not use for wool, cashmere, or silk — use Alle's ClinX Labs Woollen Wash for these fabric types.

WHY IT WORKS

How do laundry enzymes work, and why does alkaline pH enhance their performance? Laundry enzymes are biological catalysts — proteins that accelerate specific chemical reactions without being consumed in the process. Each enzyme class targets a specific molecular structure: protease enzymes cleave peptide bonds in protein molecules (blood, egg, dairy, body fluid residues), breaking complex protein structures into smaller, water-soluble peptides that can be rinsed from fabric. Lipase enzymes target ester bonds in triglyceride fats, converting cooking oils and body fats into glycerol and fatty acids that are more easily solubilised. Amylase targets the glycosidic bonds in starch, breaking down food starch deposits that bind other soil types to fabric surfaces. Enzyme activity is pH-dependent: each enzyme class has an optimal pH range within which its three-dimensional active site is correctly configured for substrate binding and catalysis. The protease and lipase enzymes used in laundry formulations are typically alkalophilic — their activity peaks in the pH 8–11 range, which is why institutional laundry detergents are formulated alkaline rather than neutral. At pH 9–11, these enzymes deliver 2–4x the catalytic activity they achieve at neutral pH, translating directly into faster stain breakdown and higher first-pass clean rates. Alkaline pH also provides a complementary cleaning mechanism through saponification: the alkaline environment converts surface fats and oils into water-soluble soap-like compounds independently of enzyme action. The combined enzyme and saponification mechanism is why alkaline enzyme detergents outperform neutral products on the mixed soiling loads characteristic of healthcare and industrial institutional laundry — the two mechanisms address different components of the soil matrix simultaneously.

DID YOU KNOW

Fact The enzymes in institutional laundry detergent are biological catalysts that work at lower temperatures than purely chemical cleaners. Protease breaks down blood and food protein. Lipase converts cooking oils into water-soluble compounds. Your linen gets cleaner, your energy bill goes down — and the enzymes cost less per gram than the heat they replace.

WHAT YOU GET FROM ONE PACK

50 ml per load.

One 5-litre pack. 100 complete wash cycles. At 50 ml per load, a single 5L pack delivers 100 complete laundry treatments. For a hospital laundry running 30 loads daily, one pack covers approximately 3.5 days of continuous operation. The first-pass clean rate improvement versus standard neutral detergents reduces rewash load — in operations tracking rewash rate, the reduction in water, energy, and labour cost per week will exceed the incremental detergent cost difference within the first month. For industrial uniform laundry services and educational institutional linen programmes, the 50 ml dosing specification provides the cost-per-load transparency required for service contract pricing and procurement budget management.

FULL PRODUCT SPECIFICATIONS

Active system	Enzyme + surfactant blend (protease, lipase, amylase active)
pH	9.0–11.0 (alkaline)
Specific gravity	1.03–1.06 at 25°C
Formulation type	Aqueous concentrate
Appearance	Clear to slightly amber liquid
Fragrance	Fresh / neutral — institutional laundry appropriate
Dose per load	50 ml
Application	Detergent drawer or drum addition
Machine compatibility	Front-load, top-load, continuous batch washers
Wash temperature	40–90°C
Safe on	Cotton, poly-cotton, synthetics, institutional linen and uniforms
Avoid on	Wool, silk, cashmere — use Woollen Wash
PPE	None at working dose
Shelf life	18 months from date of manufacture, unopened
Pack size	5 Litres concentrate
MSDS / TDS	QR code on label · Available on request

CAUTION & STORAGE

Handle with care.

For professional and institutional use. Contains enzymes — individuals with known enzyme sensitivity should wear gloves when handling concentrate. Avoid inhalation of concentrate aerosol during dispensing. In case of eye contact, rinse immediately with water. Do not ingest. Keep out of reach of children. Store in original sealed container below 30°C, away from direct sunlight. Enzyme activity degrades above 40°C in storage — do not store near heat sources. Keep container tightly closed when not in use. Shelf life 18 months from manufacture date, unopened.

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BEFORE YOU START — PPE REQUIRED

- ✓ Disposable gloves (recommended)
- ✓ Work in ventilated area

QUICK REFERENCE

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DON'T

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- ✗ Do not ingest.
- ✗ Keep out of reach of children.
- ✗ Enzyme activity degrades above 40°C in storage — do not store near heat sources.

Emergency / questions: care@allesclinx.com · allesclinx.com · National Poison Control (India): 1800-116-117