

# ZYCROBIAL

## DESCRIPTION

ZYCROBIAL is a Silane quat product for giving retentive Anti-microbial and anti-odor protection to most of the textile substrates.

## PRODUCT ATTRIBUTES

- ZYCROBIAL is water soluble and easy in application either by exhaust/ pad/ spray/ kiss roll method.
- ZYCROBIAL provides a durable long lasting anti-odor finish that shields the surface against biodegradation / deterioration by killing the bacteria.
- ZYCROBIAL gives multiple wash retentive finish by covalent bonding to hydroxyl group and self-condensation on the textile surface.
- ZYCROBIAL being cationic in nature; is compatible with other cationic and non-ionic softeners.
- ZYCROBIAL treated fibers/ yarns/ fabrics are tested & approved for various gram positive and gram negative bacteria for up to 50 washes as per testing procedure AATCC 100, ASTM E 2149 and JIS L 1902.
- ZYCROBIAL has also successfully passed AMES test, Buehler test, Intra-cutaneous Sensitization test, Acute Oral Toxicity test and is safe for use.
- ZYCROBIAL is listed under bio-active products list of "OEKO-TEX".

## TECHNICAL DATA

FORM	
Color	Pale Yellow
Physical Form	Liquid
Solid content	40±2%
Nature	Cationic
PH range	6 – 7
Solubility	Water Soluble
Carrier Solvent	MEG

**TRADITIONAL TEXTILE APPLICATIONS**

APPLICATION	FEATURES	RECOMMENDED DOSAGE OF ZYCROBIAL SOLUTION
Undergarments	Anti-microbial, anti-odor, itch free, rash free & skin friendly	10 to 20gpl (padding) or 1 to 2% (owg/owf in exhaust) for > 90% Anti-microbial efficacy and dosage could be increased up to 30gpl (padding) or 3% (owg/owf in exhaust) for retentive Anti-microbial efficacy with total anti odor control
Outerwear including uniform wear, casual wear, sportswear, denim, winter wear & baby wear		
Socks		
Home textiles including pillow stuffing fibers, blankets, carpets, bed-linen & other home furnishing fabrics	Anti-microbial and anti-odor	

**TECHNICAL TEXTILE APPLICATIONS**

APPLICATION	FEATURES	RECOMMENDED DOSAGE OF ZYCROBIAL SOLUTION
Filter fabrics made of 100% PET/PP for air, water, etc. for filtration application	Anti-microbial	30 to 50gpl can be applied by padding off line or 3 to 5 % can be sprayed/ kiss roll applied followed by curing on line.
Fish-net twines made of 100% Nylon/PET/PP filament		3 to 5 % can be sprayed/ exhaust followed by curing
100% PET/PP nonwoven fabric for re-usable/ disposable Medical textile application	Anti-microbial & anti-odor	10 to 30gpl can be applied by padding off line or 1 to 3 % can be sprayed/ kiss roll applied followed by curing on line.
Woven/knitted technical fabrics for Orthopedic engineered application made of PET/Nylon		30 to 50gpl can be applied by padding followed by curing
100% Viscose spun lace nonwoven for reusable kitchen wipe / mops	Anti-odor	10 to 30gpl can be applied by padding off line or 1 to 3 % can be sprayed/ kiss roll applied followed by curing on line.
100% Polyester needle punched resin bonded nonwoven for shoe liner application & automotive/commercial carpeting application		3 to 5 % can be sprayed followed by curing on line

**HOUSEHOLD AND LAUNDRY APPLICATION**

Zycrobial can be applied to all garments used at home/laundry for long lasting anti-odour protection by preventing growth of odour causing bacteria. It Keeps the garments odour free & microbe free, for continuous wear up to 72 hours.

**USAGE INSTRUCTIONS :**

Easy to use Zycrobial is a 'post wash leave on' product which can be added either manually or in your washing machine, while the clothes are being rinsed .

HOW MUCH TO USE	FOR HAND WASHED CLOTHES	WHEN USING A WASHING MACHINE:
<ul style="list-style-type: none"> <li>• Use 1 tablespoon of Zycrobial per 500 gm. Garment load. For a set of 1 adult clothes( 1.5 kg - 1 bottom wear, 2 top wear and 2 inners.) use 3 tablespoons.</li> <li>• Repeat this after 9 months or 40 washes, whichever is early.</li> </ul>	<ul style="list-style-type: none"> <li>• Step 1: Take an empty bucket. Add required amount Zycrobial.</li> <li>• Step 2: Fill 1/3 bucket with water (5 ltr water in 15 ltr bucket)</li> <li>• Step 3 : Add washed clothes to bucket. Ensure that the garments are fully immersed in water.</li> <li>• Step 4 : Soak for a few minutes, squeeze, dry &amp; iron (For 1st time).</li> </ul>	<ul style="list-style-type: none"> <li>• Add Zycrobial to the additives compartment in a fully automatic washing machine or add manually during the final rinsing cycle.</li> </ul>

**Note:**

1. Alkalinity may prevent ZYCROBIAL from attaching to fabric. The pH of the solution should be maintained 5.5- 6.5 for optimum exhaustion. Acidity of solution can be adjusted by Acetic acid.
2. For complete condensation & polymerization, the fabric must be completely dry after treatment; all the water must be removed. The curing temperature ranges from room temperature to a maximum of 170°C.
3. Addition of Catalyst MX improves fastness to dry cleaning solvent. Hence for fabrics / garments which are to be dry cleaned, addition of 5% Catalyst MX on the weight of ZYCROBIAL is recommended.
4. Check the compatibility of the bath with addition of ZYCROBIAL.

**COMPLEMENTARY PRODUCTS**

- **Catalyst MX:** Specially developed product to improve fastness to dry cleaning solvents.

**STORAGE & SHELF LIFE**

- Keep the drums of ZYCROBIAL in a cool and dry shade.
- Do not store in direct sun or at a temperature higher than 40 °C.
- Minimum shelf life is 12 months.
- Keep the container of ZYCROBIAL tightly closed when not in use (product is reactive to atmospheric moisture).

**DISCLAIMER**

The information & data contained herein are given in good faith but without warranty. We recommend that before using our products, the customer should make his/her own tests to determine the suitability of the products for his/her own purpose under his/her operating conditions. As the circumstances under which our products are stored, handled and used are beyond our control, we cannot assume any responsibility for their use by the customers.