



# **PUSHING THE BOUNDARIES OF CHEMTECH**

# Powered by Expertise



## Rajan Raje

Founder & CEO

An innate go-getter, who holds a Masters' degree in Chemistry coupled with a Management Diploma. His 37 years+ of industrial experience has led numerous teams towards success and understands the ins and outs of managing a business P&L and its people.



## Prof (Dr.) V.C. Malshe

Founder & CTO

An outstanding student, armed with a B. Sc (Tech) degree in Paints Technology, M.Sc.-Tech (PPV), Bombay University, 1972 and Ph. D-Tech in 1975. His 52+ years of experience in creating innovative solutions in industries. He has been recently honored with Pact Pinnacle Life-time achievement award by HBTU, Kanpur.



## Aniket Malshe

Founder & CMO

A metallurgical engineer by degree, he has had an interesting journey. From music to metals to software (Infosys, Saba) to a dream to take his father's technologies and specialty chemical solutions to the world, he joined NICHEM as a partner and CMO.

**100+**  
**YEARS**  
OF COLLECTIVE  
CHEMTECH  
EXPERIENCE

# Driven by Passion

**3**

PATENT  
GRANTED

**6**

PENDING

**150+**  
PRODUCTS

**50+**

CUSTOMERS

**10+**

EXPORT  
COUNTRIES

**BEST ADDITIVE  
MANUFACTURERS AWARD**

**AATHMANIRBHAR  
BHARAT AWARD**

# We are doing today.... what's needed for tomorrow



- **STATE OF THE ART  
R&D FACILITY**

- **INNOVATIVE PRODUCTS THAT ARE  
NON-TOXIC & SUSTAINABLE IN -**

- POTABLE WATER PURIFICATION MEDIA
- POLYMER ADDITIVES
- AGRO CHEMICALS
- HOME & PERSONAL CARE ADDITIVES
- CONSUMER PRODUCTS

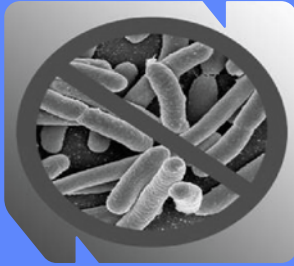


# Performance & Processing Additives Product List

Sr No	Category	Product	Purpose
1	PERFORMANCE ADDITIVES	MICROFIGHT RESICOR NO ENTRY BIOX GOFRESH CLEAR NOSTAT	Antimicrobial Additives Anticorrosive Additives Rodent & Pest Repellent Additives Biodegradable Additives Anti-Ripening Additives Anti-Fog Additives Anti-Static Additives
2	PROCESSING ADDITIVE	MAJIK FLO	MFI Improver Additive

# POLYMER ADDITIVES

Anti Microbials



Vapor Corrosion Inhibitors



Rodent & Pest Repellents



Biodegradables



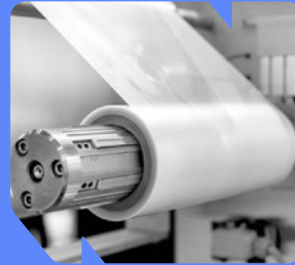
Anti-Ripening



Anti-Fog



Anti-Static



Process Enhancers



# Value Proposition

- Next generation, non-toxic, eco-friendly & human-safe technologies
- IP Protected
- Certified as per global standards
- Does not affect finished product properties
- Effective at low concentration
- Compatible with most polymers
- User-friendly
- Value addition by product differentiation



# POLYMER PERFORMANCE ADDITIVES



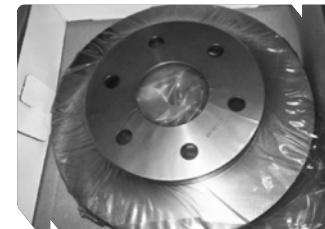
# MICROFIGHT- Anti Microbial Additives

- **Form:** Powder ; **Color:** White to Off White
- **Grades:** MF 003, MF 006, MF 014
- **Application:** Opaque & Semi-transparent, Molded, Extruded & Calendared components in ABS, Polystyrene & Polyolefins. Electronic Devices, Kitchen Appliances, Home Appliances, Bathroom Appliances, Shower Curtains, Toilet Seats, Water Purifier Units, Water Storage Tanks, Cosmetic & Personal Care Packaging etc.
- **Function:** Protect polymer surface from bacteria, fungus, virus & algae attacks
- **Value Proposition:** Offers 99.9% protection on surface, offers desired life, Retains product properties
- **Mechanism of Action:** Microbial Cell Function Disruption & Redox Potential Action
- **Dosage:** Additive in masterbatch: 10%, LDR of Masterbatch: 1 to 4% (Grade specific)
- **Additive in end product:** 1000 to 4000 ppm (Grade specific)
- **Certification:** JIS Z 2801(Antibacterial), ISO 21702(Antiviral), ASTM G 21(Antifungal), ASTM G 29(Antialgal), FDA(Food Safety), RoHS(Heavy Metals), US-EPA (In process)



# RESICOR – Anti Corrosion Additives

- **Form:** Powder/Liquid ; **Color:** Off White
- **Grades:** RC 002, RC 006
- **Application:** Films & Paper used for packing metal components used in Defence, Infrastructure, Automobile, Railways, Aviation, Industrial components etc.
- **Function:** Protection of MS, Brass, Copper Components from corrosion during storage & transit
- **Value Proposition:** Free of Nitrites, Secondary amines & Heavy Metals, hence Non-carcinogenic
- **Mechanism of Action:** Form Monomeric protective layer, neutralize the acid and forms protective layer around the metal surface, breaking air & moisture contact.
- **Dosage:** Additive in Masterbatch: 14%, LDR of Masterbatch: 1 to 9% (Grade specific)
- **Additive in end product:** 1000 to 3000 ppm (Salt Spray-Grade specific); 7000 to 9000 ppm (German Test-Grade specific)
- **Certification:** German APL 010 (Short Term), APL 004 (Long Term) & ASTM B-117 (Salt Spray Test)



# NO ENTRY – Rodent & Pest Repellent Additives

- **Form:** Powder ; **Color:** White to Off white
- **Grades:** NE 002, NE 003, NE 013, NE 015, NE 017
- **Application:** Electric Cables, Communication Cables, Wires, Mechanical Cables, Audio-visual Cables, Computer Cables, Sensing Cables, Submersible Cables, Flexible Pipes, Drip Irrigation Pipes, Pond Liners, Mulch Films, Shade Nets, Green House Films, Grain Bags, Skirting Bags
- **Function:** Repel Rodents, Squirrels, Termites, Ants & Insects from attacking polymers
- **Value Proposition:** Does not kill, only Repels, Controlled release of actives, Offer 10 to 15 years protection to cables, Offers 6 months life to Skirting Bags, No carcinogens
- **Mechanism of Action:** Unacceptable odour, Mucus membrane irritation & Bitter taste
- **Dosage:** Additive in Masterbatch: 10%, LDR of Masterbatch: 2 to 4% (Grade specific)
- **Additive in end product:** 2000 to 4000 ppm (Grade specific)
- **Certification:** At CAZRI for Choice & No-Choice Test (Rodent & Squirrels), Field Test (Ants & Termites), FDA (Food Safety), RoHS (Heavy Metals), US-EPA (In process)



# BIOX – Biodegradable Additives

- **Form:** Powder ; **Color:** Bluish Grey
- **Grades:** BIOX 001
- **Application:** Flexible Films like Packaging Films, Garbage Bags, Shopping bags made from polyolefins
- **Function:** Aid degradation of plastics in presence of sunlight and microbes
- **Value Proposition:** Breaks complex polymer to functional fragments, No microplastics, No adverse effect on soil & germination quality, Easy plastic disposal
- **Mechanism of Action:** Actives initiate polymer degradation in presence of sunlight, Converts complex polymer to monomer, microbes consume carbonyl group & convert in biomass
- **Dosage:** Additive in Masterbatch: 3 to 5%, LDR of Masterbatch: 1 to 4%
- **Additive in end product:** 300 ppm to 1000 ppm
- **Certification:** ASTM D 6954 (UV & Soil Germination Study), ISO/IS : 17088/ASTM D6400, FDA (Food Safety), RoHS (Heavy Metals)



# GOFRESH – Anti Ripening Additives

- **Form:** Powder ; **Color:** Grey
- **Grades:** GF 002
- **Application:** Packaging Films, Cling Films, Shrink Films, Crate Liners, Bags, Zip Bags, Fruit/Vegetable Covers, Containers, Punnets etc.
- **Function:** Delay Ripening of fruits & vegetables
- **Value Proposition:** Doubles shelf & transit life at room & controlled temperature, Offers long life, Complements Cold Chain
- **Mechanism of Action:** Reduction of ethylene gas from packaging atmosphere
- **Dosage:** Additive in Masterbatch: 30%, LDR of Masterbatch: 1 to 2%
- **Additive in end product:** 3000 to 6000 ppm
- **Certification:** Silver & Overall Migration Test ( EN 71 Part 3 :1994, A1: 2000), Efficacy Testing at SGS, FDA (Food Safety), RoHS (Heavy Metals)



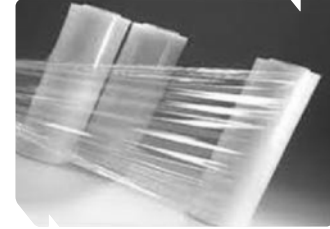
# CLEAR – Anti Fog Additives

- **Form:** Powder ; **Color:** Off-White
- **Grades:** CL 005
- **Application:** Packaging Films, Green House Films, Shrink Wrap Films
- **Function:** Prevent fogging of film surface
- **Value Proposition:** Prevents fogging on films at low & high temperature, maintains visibility
- **Mechanism of Action:** Reduction in surface energy on film, conversion of smaller droplets to larger size enabling them to trickle from sides of package
- **Dosage:** Additive in Masterbatch: 20%, LDR of Masterbatch: 2 to 3%
- **Additive in end product:** 4000 to 6000 ppm (Active 2000 to 3000 ppm)
- **Certification:** Cold & Hot Fog Resistance, FDA (Food Safety)



# NOSTAT – Anti Static Additives

- **Form:** Powder ; **Color:** Off-White
- **Grades:** NS 005
- **Application:** Packaging Films, Electric Switches, PCB Housing, Mobile Accessories, Artificial leather
- **Function:** Dissipate static charge on film surface
- **Value Proposition:** Prevents dusting, Aids film roll unwinding, Reduces fire hazard
- **Mechanism of Action:** Prevents static charge accumulation
- **Dosage:** Additive in Masterbatch: 20%, LDR of Masterbatch: 2 to 3%
- **Additive in end product:** 4000 to 6000 ppm (Active 2000 to 3000 ppm)
- **Certification:** ASTM D 257, FDA (Food Safety)

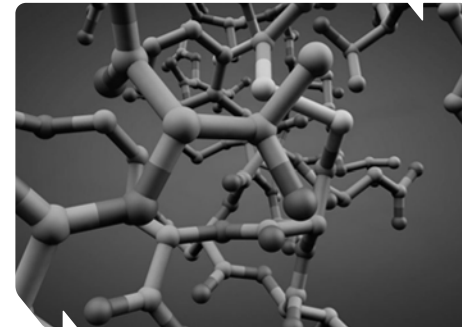


# POLYMER PROCESSING ADDITIVES



# MAJIK FLO – MFI Improver Additive

- **Form:** Powder ; **Color:** White
- **Application:** Injection molding, Blow Moulding, Blown Films Recycling, Extrusion components
- **Function:** Enhance processing output of polymers
- **Value Proposition:** Reduces melt flow viscosity of polymers, Improve flow ability & finish of the material, Improves output by up to 15%
- **Mechanism of Action:** Reduces Intrinsic Viscosity, Provides Intermolecular Lubrication
- **Dosage:** Additive in Masterbatch: 10%, LDR of Masterbatch: 1 to 2%
- **Additive in end product:** 1000 to 2000 ppm
- **Certification:** ASTM D-1238



# In a NUTSHELL: 8 categories, 17 products

Anti Microbials (3)

- MicroFight 003, MicroFight 006, MicroFight 014

Vapor Corrosion Inhibitors (3)

- ResiCor 002, ResiCor 003, ResiCor 006

Rodent & Pest Repellents (5)

- NoEntry 002, NoEntry 003, NoEntry 013, NoEntry 015, NoEntry 017

Biodegradables (1)

- BioX 001

Anti Ripening (1)

- GoFresh 002

Anti Fog (1)

- Clear 005

Anti Static (1)

- NoStat 005

Process Enhancers (1)

- Majik Flo

# UPCOMING PRODUCTS

1. **Affinex:** Compatibilizer Additive
2. **PVC Processing Additive**
3. **Anti-slip/Anti-Block Additive**
4. **Be Cool:** Heat Reflective Additive
5. **ChemiStrength:** ABS Impact Modifier Additive
6. **ViscoMod:** Intrinsic Viscosity Modifier Additive
7. **OdoGone:** Odor Remover Additive
8. **Flame Retardant Additive**
9. **Barrier Additive for Multilayer Films**
10. **UV Stabilizer Additive**
11. **Anti-oxidant Additive**
12. **Clarifier Additive for PP to Random PP**

# CONTACT US

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**Thank You**