

## Itaconix® ZINADOR™ 22L

### New easy-to-use odor neutralizer, 100% bio-based

Use Itaconix® ZINADOR™ 22L for easy and cost-effective neutralization of odors. Itaconix® ZINADOR™ 22L is a polymeric zinc itaconate complex that is 100% bio-based.

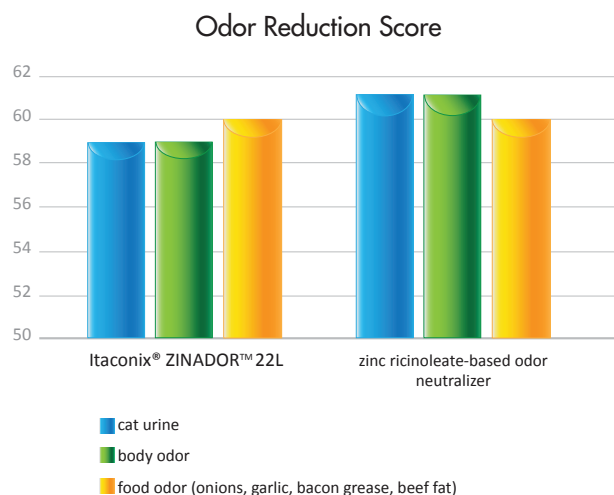
Applications	Advantages	Physical & Chemical Properties
<ul style="list-style-type: none"> <li>Liquid laundry detergents, especially for sports-wear and industrial clothing</li> <li>Air fresheners</li> <li>Carpet &amp; upholstery cleaners</li> <li>Bathroom &amp; surface cleaners</li> <li>Pet care</li> <li>Personal care products</li> <li>Wastewater &amp; sewage treatment</li> <li>Waste treatment &amp; landfill facilities</li> <li>Animal &amp; agriculture waste containment sites</li> </ul>	<ul style="list-style-type: none"> <li>Effective on odors related to hydrogen sulfide, mercaptans, ammonia and body odor</li> <li>Readily soluble in liquid formulations without additives</li> <li>Stable in hard water without additives</li> <li>Stable from pH 2 to pH 11</li> <li>Dries to crystal; no oily residues or need for embrittling agents</li> <li>Does not cause foaming; no need for anti-foaming agents</li> <li>No odor in use or from residues</li> <li>Good temperature stability</li> <li>100% bio-based</li> </ul>	<b>INCI</b> sodium zinc polyitaconate
		<b>CAS#</b> 1662663-05-9
		<b>pH</b> 7.9
		<b>Odor</b> none
		<b>Avg. molecular weight (Mw)</b> 5500 g/mole
		<b>% Active zinc</b> 2%
		<b>Chemical nature</b> poly(itaconic acid), Na, K, Zn salt
		<b>Appearance</b> clear to slightly hazy yellow liquid
		<b>Viscosity</b> <100 cP
		<b>Specific gravity</b> 1.17
		<b>Solid content</b> 26%
		<b>Recommended use</b> 1 to 5%

### New & improved technology for odor neutralization

Itaconix® ZINADOR™ 22L is a major advance in odor neutralization. Zinc complexes are widely used to neutralize odors caused by hydrogen sulfide, mercaptans, thioethers and ammonia. Itaconix® ZINADOR™ 22L is a new, easier-to-use and more cost-effective approach to formulating zinc complexes into home and industrial products.

Independent laboratory testing confirms that Itaconix® ZINADOR™ 22L performs equal to or better than the current leading zinc-based technology at neutralizing food odors, cat urine, and body odor.

Itaconix® ZINADOR™ 22L is a 100% bio-based product that delivers major new formulating, use, and cost advantages due to its water solubility and lack of residual deposits after use. No surfactants are needed in end-use formulations. In addition, the product has no odor, does not cause foaming, and dries to a crystal, so no masking, anti-foaming or embrittling agents are needed.



Lower score indicates better odor removal

Source: Sterling Laboratories, data available upon request

### Better stability

Itaconix® ZINADOR™ 22L is stable over a broad pH range and high levels of water hardness. Current leading zinc-based technology requires separate products for different pH ranges and added chelation to protect products from hard water.

Itaconix® ZINADOR™ 22L is compatible with leading non-ionic surfactants, anionic surfactants, fragrances, and hydrogen peroxide. It is not compatible with sodium hypochlorite.

Itaconix® ZINADOR™ 22L can be transported and stored at up to 40° C. In end-use formulations, the product is stable up to 60° C.

<b>pH</b>	stable from 2 to 11
<b>Water</b>	up to 400 ppm
<b>Hardness</b>	(for a 5% solution at pH 8)
<b>Surfactant</b>	stable with leading non-ionic and anionic surfactants
<b>Fragrance</b>	stable
<b>Temperature</b>	stable for storage and transport up to 40° C, stable to freezing stable in use up to 60° C
<b>Bleach</b>	sodium hypochlorite - not compatible hydrogen peroxide - compatible

### Easier to formulate, better performance

Formulating with Itaconix® ZINADOR™ 22L is easier and more effective than current leading zinc-based technology. With Itaconix® ZINADOR™ 22L, product claims and performance for odor neutralization are achieved without the need for adding:

- surfactants
- solvents
- emulsifiers
- chelants
- embrittling agents
- anti-foaming agents

Formulations are simpler, work across broad pH ranges, and do not leave problematic residues.

Aqueous odor absorber formulation		
Ingredients	Typical Itaconix® ZINADOR™ 22L	
	w/w%	w/w%
Itaconix® ZINADOR™ 22L	0.0	2.5 (0.05% zinc)
50% zinc ricinoleate	1.0 (0.05% zinc)	0.0
Anionic surfactant/emulsifier	6.0	0.0
Phosphonic acid (DTPMP), 32%	2.5	0.0
Triethanolamine	0.6	0.0
DI Water	89.9	97.5

### Samples available on request

Please e-mail request to: [samples@itaconix.com](mailto:samples@itaconix.com)

### To request information on ordering quantities and pricing

Please call: +1 (603) 775-4400 or e-mail: [sales@itaconix.com](mailto:sales@itaconix.com)



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