



Flexisorb™ OD-102

Readily dilutable Zinc Ricinoleate dispersion

Overview

- Concentrated zinc ricinoleate dispersion which readily dilutes in water to slightly acid pH
- Use as a Stand Alone Odor Control Agent, or as an Additive in Hard and Soft Surface cleaning formulations
- Liquid form for compounding or spray application
- Effective in liquid, spray, fogging or mist applications
- Naturally renewable odor neutralizer that traps and absorbs odors-not a masking agent
- Not a bactericide, fungicide or sanitizer
- Compatible with fragrances and most formulating ingredients
- Effectively fixates a wide range of odorous compounds
- Binds with Organic waste and decomposition odors
- Captures odors associated with humans, animals, food, chemical processes and smoke
- Effective against smelly acids, amines, mercaptans and thioethers, including hydrogen sulfide and ammonia

Applications

- Bathrooms and shower rooms
- Kitchen and food storage areas
- Automotive, RV and boat
- Waste cans, Garbage bags, Dumpsters
- Paints and coatings
- Litter and litter boxes
- Sewage plants, Land fills
- Stock yards, Paper plants

Technical Information

Flexisorb OD-102 is an optimized Odor Control Agent for use as a stand alone product or an additive in Hard and Soft Surface cleaning products. OD-102 is a stabilized liquid zinc ricinoleate dispersion that readily dilutes in water to a slightly acid pH. Flexisorb OD-102 is an odor neutralizer...not an antimicrobial or chemical masking agent. More effective than related copper and magnesium salts of the same valence, Flexisorb OD-102 zinc ricinoleate forms unique fixating complexes that trap and absorb odor causing substances, and remain stable even if the treated substrate dries.

Formulary

Flexisorb OD-102 is readily dilutable in water, diluting to a clear neutral to slightly acidic solution in water at any concentration. Deionized water is recommended for improved shelf-life. If a fragrance is desired, some fragrance oils can be pre-dissolved in Flexisorb OD-102, while others may require their own emulsification package. Give us a call for formulation guidance in producing concentrates and ready-to-use products that maintain extended shelf-life clarity and for incorporating fragrances.

Use of deionized water and a preservative is recommended. Nipacide BIT 20, Proxel GXL and Verigard 19S have been found to provide adequate protection. Typical active preservative concentration is 0.05-0.5% weight percent. Preservative effectiveness should be determined by the formulator.

Typical Properties

PROPERTY	VALUE
Appearance	Clear, pale amber liquid
Odor	Mild
Ionic character	Anionic
Water solubility	Dilutes to clear solution
pH (1%)	5.9-6.9
Density@25°C	1.07±0.02
Boiling point	>100°C
Flash point	Does not ignite below 100°C
Storage	Stable to freezing
Shelf life	12 months

Packaging and Handling

Flexisorb OD-102 is available in totes (Net Wt. 2400 lbs), 55 gallon plastic drums (Net Wt. 480 lbs) and 5 gallon pails (Net Wt. 40 lbs).

Refer to the Safety Data Sheet (SDS) for information on the safe use, handling, and disposal of this product.

DOT Classification: Non-Regulated

Whether you're looking for a replacement product, or an ingredient for a specific attribute, give us a call. We can provide assistance based upon your particular formulation requirements and composition; please feel free to contact us.

Please refer to back page for important information

Flexisorb OD-102: Natural Odor Neutralizer

Flexisorb OD-102 is a naturally renewable odor neutralizer that traps and absorbs odors...not an antimicrobial or chemical odor masking agent. Flexisorb OD-102 is a complex zinc ricinoleate made from purified and naturally renewable ingredients, in a readily dilutable dispersion.

Designed for ease of use, Flexisorb OD-102 readily dilutes in water to form a neutral to slightly acidic stable solution. For extended shelf-life preparations, a preservative may be needed. Give us a call for OD-102 formulation guidance.

Flexisorb OD-102: Effective Odor Neutralization

The mechanism for odor fixation by Flexisorb OD-102 is complicated, being a combination of adsorption, complex formation, and in some instances a chemical formation such as mercaptans to mercaptides. More effective than related copper and magnesium salts of the same valence, and related organic acids of the same carbon number, Flexisorb OD-102 zinc ricinoleate forms unique fixating complexes specific to the odor causing substances that cause intensive odor with low odor thresholds such as low molecular weight organic acids, amines, mercaptans, dialkyl sulfides, dialkyl disulfides, NH_3 , H_2S and SO_2 .

Flexisorb OD-102: Range of Application

Flexisorb OD-102 traps, absorbs, and fixes odor-intensive organic substances. Substances with low odor thresholds with sulfur- such as thiols and thioethers, or nitrogen-containing functional groups such as ammonia and dimethylamine, low molecular weight carboxylic acids such as isovaleric acid and hexenoic acid are effectively neutralized by OD-102. Odorous food and animal decomposition products such as putrescine and cadaverine, and industrial by-products such as hydrogen sulfide and sulfur dioxide and others are effectively controlled by Flexisorb OD-102 and formulations that contain it.

Flexisorb OD-102: Formulary

Concentration of Flexisorb OD-102 in the formulation depends on the application since the odor absorbing properties are related to the reaction of the odor causing chemical with the Flexisorb OD-102. Some applications may require as little as 1/100th of the listed formulations.

Add all ingredients in order listed. Add Flexisorb OD-102 to water with vigorous agitation. If a fragrance is desired, some fragrance oils can be pre-dissolved in the OD-102 for addition, others may require their own emulsification package. Preservative should be added to these formulations. Some preservative candidates include Nipacide BIT 20, Proxel GXL and Verigard 19S (typically, these preservatives are effective at active concentrations between 0.05 and 0.5% by weight in final product). Use deionized water to further improve shelf stability of diluted products.

Ready-to-Use Odor Absorber	
Ingredient	Wt. %
Flexisorb OD-102	1-7
Fragrance	to 0.05%
Water	to 100%
Preservative ⁽¹⁾	0.2
Ready-to-Use	
Mix ingredients in order listed.	
Appearance	Clear liquid
pH	6.3 (5% OD-102)
⁽¹⁾ Nipacide BIT 20	

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