



Flexisorb™ OD-100

Chelate and Stabilizer-free Zinc salt dispersion

Overview

- Concentrated zinc salt dispersion readily dilutes in water to a neutral pH
- Chelate and Stabilizer free, may require additional stabilizing ingredients
- 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-100 is an optimized Odor Control Agent for use as a stand alone product or an additive in Hard and Soft Surface cleaning products. Chelate and Stabilizer free, OD-100 is a liquid zinc salt dispersion that readily dilutes in water to a neutral pH, that may require additional stabilizing ingredients. Flexisorb OD-100 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-100 zinc salt forms unique fixating complexes that trap and absorb odor causing substances, and remain stable even if the treated substrate dries.

Formulary

Flexisorb OD-100 is readily dilutable in water, diluting to a clear solution in water at any concentration, but requires additional stabilizers to maintain long term shelf-life clarity. If a fragrance is desired, some fragrance oils can be pre-dissolved in Flexisorb OD-100, 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 Yellow to Light Amber Liquid
Odor	Mild
Ionic character	Anionic
Water solubility	Dilutes to clear solution
pH, as is	7.0-7.5
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-100 is available in totes (Net Wt. 2250 lbs), 55 gallon plastic drums (Net Wt. 450 lbs) and 5 gallon pails (Net Wt. 40 lbs).

Refer to Material Safety Data Sheet (MSDS) 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-100: Natural Odor Neutralizer

Flexisorb OD-100 is a naturally renewable odor neutralizer that traps and absorbs odors...not an antimicrobial or chemical odor masking agent. Flexisorb OD-100 is a complex zinc salt of purified and naturally renewable ingredients, in a readily dilutable dispersion.

Designed for ease of use, Flexisorb OD-100 readily dilutes in water to form a semi-stable solution. Additional stabilizer and preservative is required for long term clarity and functionality. Give us a call for OD-100 formulation guidance.

Flexisorb OD-100: Effective Odor Neutralization

The mechanism for odor fixation by Flexisorb OD-100 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-100 zinc salt 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-100: Range of Application

Flexisorb OD-100 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-100. 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-100 and formulations that contain it.

Flexisorb OD-100: Formulary

Concentration of Flexisorb OD-100 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-100. Some applications may require as little as 1/100th of the listed formulations.

Add all ingredients in order listed. Add Flexisorb OD-100 to water with vigorous agitation to form an emulsion that clears on addition of the citric acid. If a fragrance is desired, some fragrance oils can be pre-dissolved in the OD-100 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). Preservative effectiveness should be determined by the formulator. Use deionized water to further improve shelf stability of diluted products.

Ready-to-Use Odor Absorbers			
Ingredient	Wt. %	Wt. %	Wt. %
Water	92.85	96.76	98.89
Flexisorb OD-100	7.0	3.0	1.0
Na_4EDTA , 38%	0	0.22	0.1
Citric acid	0.15	0.02	0.01
pH:	4.4	6.6	5.5
Appearance:	Clear	Clear	Clear/ blue hue
Ready-to-Use Add ingredients in order listed.			

The components of Flexisorb OD-100 are listed and in compliance with the requirements of the following chemical inventories: US (TSCA), Canada (NDSL; Contact ICT Regulatory Affairs for quantities >1000kg/yr), EU (EINECS), Australia (AICS), China (IECSC), Korea (ECL), New Zealand (NZIoC), Philippines (PICCS).

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Flexisorb OD

Zinc ricinoleate-based odor neutralizers



Key Features/Applications

- Selective fixation of odor-active agents
- Effective from both solid and liquid form
- Industrial odor control and remediation
- Consumer and Institutional products

Surface Chemistry. Intelligently Applied...

Surfaces are all around us. ICT Surface Chemistry can make them better through innovation that works, with the right products that bring real value. Rely on ICT chemistry know-how for support that works to solve problems and open opportunities, and technology that works for manufacturing and control systems that produce reliably consistent products.

More than a chemical supplier, ICT supplies surface chemistry, intelligently applied...for your products.



Innovation that Works

Innovation, intelligently applied, is the keystone in everything we do. ICT innovative products make surfaces work better. Flexipel™ and Thetapel™ fluoropolymer repellents and soil release agents, keep surfaces dry and cleaner longer. Flexisurf™, Flexiwet™ and Thetawet™ alkyl and fluoroalkyl surfactant wetting agents and specialty foamers perform under conditions where conventional surfactants fall short. Flexiclean™ formulated solutions and dilutable concentrates simplify production and packaging while delivering best of class performance. Flexisperse™ polymer technology creates wettable surfaces, suspends solids, inhibits scale, thickens and foams. Innovation makes the difference in creating smarter and responsible solutions for real value in new chemical applications that work.

Chemistry that Works

Chemistry, intelligently applied, is more than just picking from a list of ingredients in a supplier's catalog. Product development that creates products with a distinguishing difference comes from knowing how to combine unique ingredients for differentiated product performance. ICT chemistry experience means responsive product and application support where true chemistry know-how brings out the very best in technical support that you can put to work.

Technology that Works

Technology, intelligently applied, is building reliable systems for developing responsible products and processes that deliver consistent high quality with reliability in supply and delivery. ICT customers profit from technology that works for them, in markets that include paints and coatings, personal care, household and institutional, industrial, textile, agriculture, mining, automotive and aerospace. Whatever your market, put ICT technology to work...for you.

...Making Surfaces Better.

Flexisorb OD

Zinc ricinoleate-based odor neutralizers

Flexisorb OD-Zinc ricinoleate-based products are naturally renewable odor neutralizers that trap and absorb odors...not antimicrobials or chemical odor masking agents. Flexisorb OD products are complex zinc salts of purified and naturally renewable ingredients, in application optimized formulations.

Product Data Summary

Products	Zinc salt actives	Description	Application
Flexisorb OD-P	100%	High-Actives solid soluble in alcohol and polar organic solvents, and in aqueous surfactant mixtures Pastilles for easy and convenient handling	Solid form for non-aqueous compounding, incorporation into solids of films, or use in formulated products
Flexisorb OD-500	50%	Highly concentrated zinc salt dispersion soluble in alcohol and polar organic solvents, and in aqueous surfactant mixtures High actives, low moisture complex, requires additional stabilizing ingredients	Use as an Odor Control Agent in a range of applications
Flexisorb OD-300	30%	Highly concentrated zinc salt dispersion readily forms a microemulsion when diluted in water High actives, readily emulsifiable zinc salt complex, may require additional stabilizing ingredients	Use as a Stand Alone Odor Control Agent, or as an Additive in Hard and Soft Surface cleaning formulations
Flexisorb OD-202	5%	Concentrated zinc salt dispersion with anti-resoil ingredients readily dilutes in water	Use as a Stand Alone Soft Surface Odor Control Agent, or as an Additive in Carpet and Upholstery cleaning formulations
Flexisorb OD-102	5%	Concentrated zinc salt dispersion 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
Flexisorb OD-101	5%	Concentrated zinc salt dispersion readily dilutes in water to slightly alkaline pH	Use as a Stand Alone Odor Control Agent, or as an Additive in Hard and Soft Surface cleaning formulations
Flexisorb OD-120ZnR	20%	Concentrated chelate-free zinc salt dispersion readily dilutes in water Maintains excellent clarity down to 5% as supplied, with excellent cold temperature stability	Use as a Stand Alone Odor Control Agent, or as an Additive in Hard and Soft Surface cleaning formulations
Flexisorb OD-100	5%	Concentrated zinc salt dispersion readily dilutes in water to a neutral pH Chelate and Stabilizer free, may require additional stabilizing ingredients	Use as a Stand Alone Odor Control Agent, or as an Additive in Hard and Soft Surface cleaning formulations

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.

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