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PRODUCT DATA

NUODEX INC.
Turner Place, P.O. Box 365
Piscataway, New Jersey 08854
(201) 981-5000

NUOSEPT® 95 PRESERVATIVE

EPA REG. NO. 1100-82

GENERAL DESCRIPTION

NUOSEPT 95 Preservative is a 50% aqueous solution of non-metallic organic compounds designed for use as a preservative in water-based products. NUOSEPT 95 Preservative effectively prevents deterioration and spoilage during the manufacture, storage and service of products such as latex paints, latex emulsions, pigment dispersions and slurries, inks, adhesives, caulks, sealants, metalworking fluids, paper coatings, drilling muds and flooding fluids. For example, the use of NUOSEPT 95 Preservative in latex paints will prevent bacterial decomposition of the paint during manufacture and storage without adversely affecting the physical properties, paint application characteristics or dry film performance. NUOSEPT 95 Preservative is non-yellowing and can be added at any point during paint manufacture.

PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear, pale yellow liquid	
Active Ingredients	5-Hydroxymethoxymethyl-1-aza-3,7-dioxabicyclo(3.3.0)octane	24.5%
	5-Hydroxymethyl-1-aza-3,7-dioxabicyclo(3.3.0)octane	17.7%
	5-Hydroxypoly[methyleneoxy (74% C_2, 21% C_3, 4% C_4, 1% C_5)] methyl-1-aza-3,7-dioxabicyclo (3.3.0)octane	7.8%
Odor	Mild, characteristic	
Color (APHA)	250 max., clear	
Viscosity (25°C)	3.6 cSt	
Specific Gravity (25/25°C)	1.137	
Lbs./Gal.	9.5	
Refractive Index (25°C)	1.404	
pH	5-7	
Flash Point (TCC)	>200°F	

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Solubility (active ingredients, grams/100 grams @ 25°C)

Water, methanol, ethanol, acetone, chloroform, ethylene glycol--soluble in all proportions.

Hexane	0.2
Petroleum ether	0.2
Xylene	1.5
Benzene	2.8
Ethyl ether	28.0

Stability

Stable under normal conditions of storage. Protect from freezing.

RECOMMENDED USE BY INDUSTRY

A. Adhesive

Adhesives based on natural products as starch and dextrin are readily degradable. To protect these adhesives during manufacture and storage, NUOSEPT 95 Preservative is recommended at weight percent additions of 0.2-0.5.

Those adhesives based on latex emulsions are also subject to spoilage. However, the severity of the spoilage depends on the resin type, organic additives and the pH. Typical use-levels of NUOSEPT 95 Preservative in these systems range from 0.1 to 0.5 weight percent.

B. Construction Materials

Latex based caulks and sealants are used to seal joints or voids against water, air, dust and sound. They are often supplied as knife or gun-grade compounds for ease of application. To protect these materials during manufacture and on the shelf, the use of NUOSEPT 95 Preservative at 0.1-0.5 weight percent is recommended.

C. Latex Emulsion

Raw latex emulsions, e.g., polyvinyl acetate or acrylic, can support microbial growth during transport and storage. NUOSEPT 95 Preservative at a use-level of 0.05 to 0.3 percent by weight is recommended.

D. Ink

The shelf life of water-based fountain pen and printing inks can be increased by the addition of NUOSEPT 95 Preservative at 0.1-0.3 weight percent.

E. Paint

Latex paints are susceptible to microbial spoilage. For example, the bacterial degradation of cellulosic thickened paints can cause thinning to unacceptably low viscosities. NUOSEPT 95 Preservative at 0.1-0.5 percent by weight will prevent the microbial deterioration of latex paints.

F. Petroleum Production and Recovery

NUOSEPT 95 Preservative at 0.1-0.2 weight percent is recommended for the preservation of drilling muds. Fluids used t· flood strata for the secondary recovery of petroleum should contain 0.05-0.1 weight percent NUOSEPT 95 Preservative.

G. Pigment Dispersion and Slurry

Clay and titanium dioxide slurries and dispersions of organic pigments require protection against deterioration of dispersants and other additives. NUOSEPT 95 Preservative adequately protects these systems at concentrations of 0.05 to 0.3 weight percent.

H. Pulp and Paper

Treated paper and paper board intended for producing, manufacturing, packaging, processing, treating or preparing food products must be limited to contact with dry food.

Paper coatings and printing colors based on natural products such as starch should be protected with 0.2 to 0.5 weight percent NUOSEPT 95 Preservative.

Products based on latex emulsions are less susceptible to spoilage; consequently, the use of 0.1-0.3 weight percent NUOSEPT 95 Preservative is recommended.

I. Metalworking Fluids

To prevent the spoilage of metalworking fluids, NUOSEPT 95 Preservative is recommended at use-levels of 0.1-0.3 percent based on the weight of the diluted fluid. Similar levels are recommended for use in recirculating systems.

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USE-LEVEL SUMMARY

End-Use	Reason for Treatment	Recommended Use-Level[1] of NUOSEPT 95 Preservative	P
Adhesive (Natural-Based)	To prevent spoilage during manufacture and storage	0.2-0.5	Add t add.
Adhesive (Synthetic)	To prevent spoilage during manufacture and storage	0.1-0.5	Add t add.
Caulks	To increase shelf-life	0.1-0.5	Add t manuf
Drilling Muds	To prevent spoilage during manufacture, storage and service.	0.10-0.2	Add t add.
Flooding Fluids	To prevent spoilage during storage and service.	0.05-0.1	Post
Latex Emulsion	To prevent spoilage during transit and storage.	0.05-0.3	Post
Latex Paint	To prevent spoilage during manufacture and to increase shelf-life.	0.1-0.5	Add a manuf
Inks	To prevent spoilage during storage and service.	0.1-0.3	Post
Paper Coatings	To prevent spoilage during manufacture and storage.	0.1-0.5	Add t add.
Pigment Dispersion	To increase shelf life.	0.1-0.3	Add a manuf
Pigment Slurry	To prevent spoilage during transit and storage	0.05-0.1	Add t add.
Sealants	To increase shelf-life	0.1-0.5	Add t manuf
Metalworking Fluids	To protect during manufacture and service.	0.1-0.3	Add t add.

Legend: [1] Percent by weight of formulation. The optimum amount of NUOSEPT 95 Preservative req preservation is bes determined by conducting a series of test loadings and making a adjustments.

lation. Wash thoroughly after handling. Remove contaminated clothing and wash before re-use.

This pesticide is toxic to fish. Do not discharge into lakes, streams, ponds, or public waters unless in accordance with an NPDES Permit. Do not apply in marine and/or estuarine oil fields. Do not contaminate water by cleaning of equipment or by disposing of wastes.

Keep away from heat and flame. In case of fire, use water spray, foam, carbon dioxide or dry chemical.

STATEMENT OF PRACTICAL TREATMENT

If in eyes: Flush with plenty of water for 15 minutes. Call a physician.

If swallowed: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

If on skin: Wash with soap and water. Call a physician if irritation develops.

If inhaled: Remove victim to fresh air. Give artificial respiration or oxygen if needed. Call a physician.

STORAGE AND DISPOSAL

PROHIBITIONS - Do not contaminate water, food, or feed by storage or disposal.

PESTICIDE DISPOSAL - Pesticide, spray mixture or rinsate that cannot be used according to label instructions must be disposed of according to federal, state or local procedures under the Resource Conservation and Recovery Act.

CONTAINER DISPOSAL - Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other approved state and local procedures.

GENERAL - Consult federal, state or local disposal authorities for approved alternative procedures.

Protect from freezing.

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SHIPPING INFORMATION

NOT CLASSIFIED AS DOT HAZARDOUS.

ICC Classification - Chemicals, NOIBN

Shipping Point - Fords, New Jersey

Container - Non-returnable steel drums

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