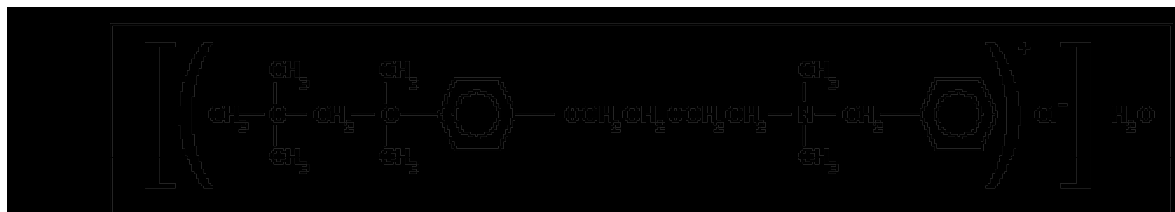


# HYAMINE™ 1622

**EPA Registered Biocide**  
**CAS Number 121-54-0**

Hyamine™ 1622 microbiocide is a crystalline quaternary ammonium compound. Hyamine™ 1622-50 percent is a 50 percent active concentrate. These materials are effective in low concentrations against a wide variety of microorganisms.

In suitable formulations the Hyamine™ products provide bactericidal and deodorant action. The crystalline form of Hyamine™ 1622 is readily soluble in water and other solvents. It can be formulated into powdered or liquid products for industrial or household sanitizers and disinfectants. Hyamine™ germicides are not corrosive to environmental surfaces when used according to directions.



	Hyamine™ 1622 50%	Hyamine™ 1622 Crystals
Active Ingredient		
Diisobutylphenoxyethoxyethyl dimethyl benzyl ammonium chloride (MW = 448.1)	50%	100%
Inert Ingredient	50%	0%
<b>Typical Properties</b>		
% Quaternary @ MW = 448.1	47.5-52.5	95.8 - 102
% Chloride	3.76 -4.16	7.70 - 8.00
Color (APHA)	150 Max.	40 Max. (@ 10%Solution)
pH (5% as is)	8-10	No Spec.
Physical State	Liquid	Powder
Amine Hydrochloride%	0.75 Max.	0.2 Max.
Melt Point, initial degree C	-	158 – 163
Clarity, 10% solution	-	85% Min.
% on 20 Mesh	-	2.0 Max.
Transmittance,%	85 – 100	-
Solids,%	48.04 – 54.28	-
Chloride	3.76 – 4.16	-

Specifications are based upon Lonza analytical test methods, copies of which are available upon request.

The seller makes no warranty, expressed or implied, concerning the accuracy of any results to be obtained from the use of this information and no warranty is expressed or implied concerning the use of these products other than indicated within. The buyer assumes all risks of use and/or handling. No statement is intended or should be construed as a recommendation to infringe any patent. Printed in the USA Revised 17-July-2012 Supersede 7-9-07

## **Solubility:**

Hyamine™ 1622 is soluble in water, the lower alcohols, glycols, ethoxyethanol, ethyleneglycol monomethyl ether, tetrachlorethane, and miscible with ethylene dichloride and carbon tetrachloride. It is insoluble in aliphatic hydrocarbons.

## **Compatibility**

The compatibility of Hyamine™ 1622 was determined by mixing dilute solutions of the germicide with solutions of substances with which it might be combined in formulations. The presence or absence of turbidity indicates physical compatibility, but final formulations should be carefully evaluated for both physical and bactericidal stability.

Compatible	Partially Compatible	Incompatible
Acetic acid Aluminum chloride Borax Calcium chloride Citric acid Nonionic wetting agents Polyoxyalkylene lanolin Potassium hydroxide Sodium acetate Sodium bicarbonate Sodium carbonate Sodium hydroxide Sodium nitrate Sodium sulfate Tetrasodium pyrophosphate Trisodium phosphate	Potassium iodide Sodium hexametaphosphate* Sodium metasilicate Sodium tetraphosphate* Sodium tripolyphosphate*	Anionic wetting agents Potassium chromate Potassium dichromate Soaps Sodium heptaphosphate
*Only in dilute solutions or in the presence of sufficient nonionic wetting agents or other suitable solubilizer.		

NOTE: This product should not be used or compounded with any reducing or oxidizing agents (such as calcium hypochlorite, solid perchlorate, or nitric acid) since such mixtures may be explosive. Do not use in conjunction with soap or any anionic wetting agent. In preparing packaging mixes containing Hyamine 1622 Crystals use normal precautions for handling powdered materials likely to create dust. Use an exhaust fan to keep dust away from operators.

## **Effect of Hard Water on Antimicrobial Activity**

Hyamine™ 1622 retains its effectiveness as a hard-surface disinfectant and preservative in the presence of hard water, but, like other quaternaries, its speed of action can be slowed by the presence of calcium and magnesium salts.

The hard-water ceiling of Hyamine™ 1622 is relatively low, and it should be formulated with inorganic or organic sequestering agents to improve performance in hard water.

## Surface Tension

Hyamine™ 1622 is a surface-active compound and displays typical surfactant characteristics, such as the reduction of surface tension, foaming and penetration.

Surface Tension and Interfacial Tension Dynes/Centimeter				
Hyamine™ 1622 Active Concentration, %	1.0%	0.1%	0.01%	0.001%
Surface Tension	33	30	45	55
Interfacial Tension*	4.9	2.6	15.8	25.8
*Interfacial Tension vs. Arcoprime 90 Mineral Oil. All data via duNouy tensiometer at 25°C.				

## Applications

This product is a concentrate for formulating purposes only. This product for formulation into antimicrobial products for use in/on Agricultural premises and equipment, Food Handling/storage establishment premises and equipment, Commercial, institutional and industrial premises and equipment, Residential and public access premises, Materials and Preservatives, Medical Premises and equipment and Swimming Pools. This product is not intended for use in Pharmaceutical Applications. Formulators using this product are responsible for providing data for the EPA registration of their formulated products. This product may be used to formulate products for specific use(s) not listed on this label if the formulator or primary registrant has complied with U.S. EPA data requirements regarding the support of such use(s).

## General Deodorization

Hyamine™ 1622 is a deodorant and destroys rather than masks obnoxious odors. Odors due to microbial decomposition are also eliminated by the destruction of the microorganism.

Hyamine™ 1622 formulations can be used to control cooking odors, odors of putrefaction or personal illness, and odors in public rooms.

## Algae Control

The growth of algae in swimming pools can be controlled by very low concentrations of Hyamine™ germicides.

## Packaging

Hyamine 1622-50% is available in 35 lb. net weight pails and 450 lb. net weight drums.  
Hyamine 1622 Crystals is available in 22 lb. net weight pails and 110 lb. net weight drums.

## Regulatory

	Hyamine 1622 Crystals	Hymaine 1622-50%
EPA Registrartion No.	6836-91	6836-93
Canadian Pesticide Control No.	17011	--

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Formulators using this product are responsible for providing data for the EPA registration of their formulated products.

For information on Lonza's extensive portfolio of EPA registered formulations and our Supplemental Registration Program, please call our Technical Service Hotline at 800-365-TECH (8324) or contact us at [contact.allendale@lonza.com](mailto:contact.allendale@lonza.com).