

**VERICHEM****TECHNICAL
DATA SHEETS**

VERIGUARD® DBDCB AD EPA REGISTRATION NO. 67869-34

DESCRIPTION	<p>VeriGuard® DBDCB AD is a preservative which effectively inhibits the growth of microorganisms in aqueous systems, including paints, emulsions, adhesives, joint cements, pigment dispersions, metal-working fluids, waxes, polishes and inks, and fiber processing fluids and coatings (including heating and air conditioning systems). Chemically, VeriGuard® DBDCB AD is a 25.0% dispersion of 1,2-dibromo-2,4-dicyanobutane in water.</p> $\begin{array}{c} \text{C} \equiv \text{N} \quad \text{C} \equiv \text{N} \\ \quad \\ \text{H}_3\text{-C-C-CH}_2\text{-CH}_3 \\ \quad \\ \text{Br} \quad \text{Br} \end{array}$
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TYPICAL PROPERTIES	Color	Off white to white
	Specific gravity @ 20°C	1.1 ± 0.02
	Viscosity (Brookfield RVF, #3 Spindle @ 20 rpm @ 25°C)	1000-3000 cps

TYPICAL LEVELS OF USE	<p>VeriGuard® DBDCB AD is typically effective when applied at concentrations shown below. All concentrations are based on the total formulation weight.</p> <table><thead><tr><th></th><th><u>Effective Concentration</u></th></tr></thead><tbody><tr><td>Aqueous Paints</td><td>0.10 - 0.3%</td></tr><tr><td>Latex Emulsions</td><td>0.04 - 0.2%</td></tr><tr><td>Adhesives:</td><td></td></tr><tr><td>Polyvinyl acetate, styrene butadiene, acrylic, methyl cellulose</td><td>0.10 - 0.3%</td></tr><tr><td>Polyvinyl alcohol, hydroxyethyl cellulose</td><td>0.20 - 0.3%</td></tr><tr><td>Epoxy, polyester</td><td>0.04 - 0.3%</td></tr><tr><td>Dextrin</td><td>0.30 - 0.4%</td></tr><tr><td>Casein</td><td>0.40 - 0.6%</td></tr><tr><td>Waxes and polishes</td><td>0.01 - 0.1%</td></tr><tr><td>Inks</td><td>0.01 - 0.075%</td></tr><tr><td>Dispersed pigments</td><td>0.04 - 0.1%</td></tr><tr><td>Joint Cements</td><td>0.20 - 0.4%</td></tr><tr><td>Metalworking fluids</td><td>0.10 - 0.4%</td></tr><tr><td>Fiber processing fluids</td><td>0.20 - 1.2%</td></tr></tbody></table>		<u>Effective Concentration</u>	Aqueous Paints	0.10 - 0.3%	Latex Emulsions	0.04 - 0.2%	Adhesives:		Polyvinyl acetate, styrene butadiene, acrylic, methyl cellulose	0.10 - 0.3%	Polyvinyl alcohol, hydroxyethyl cellulose	0.20 - 0.3%	Epoxy, polyester	0.04 - 0.3%	Dextrin	0.30 - 0.4%	Casein	0.40 - 0.6%	Waxes and polishes	0.01 - 0.1%	Inks	0.01 - 0.075%	Dispersed pigments	0.04 - 0.1%	Joint Cements	0.20 - 0.4%	Metalworking fluids	0.10 - 0.4%	Fiber processing fluids	0.20 - 1.2%
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DIRECTIONS FOR USE	<p>It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. <i>Aqueous Paints (including heating and air conditioning systems):</i> VeriGuard® DBDCB AD should be incorporated into the make-up water during the grind.</p> <p><i>Latex Emulsions:</i> VeriGuard® DBDCB AD should be added using moderate agitation immediately following the cool-down of the emulsions and prior to pumping to storage tank facilities.</p> <p><i>Adhesives:</i> VeriGuard® DBDCB AD should be incorporated with agitation to the make-up water. However, where the adhesive is heated, VeriGuard® DBDCB AD should be added during the cool-down cycle. <i>Waxes Polishes and Inks</i></p> <p>VeriGuard® DBDCB AD should be incorporated with agitation into the make-up water blend.</p> <p><i>Dispersed Pigments:</i> VeriGuard® DBDCB AD should be added using moderate agitation immediately following the cool-down of the dispersed pigment and prior to pumping to the storage tank facilities.</p> <p><i>Joint Cements:</i> VeriGuard® DBDCB AD should be incorporated with agitation into the make-up water blend.</p> <p><i>Metalworking Fluids:</i> VeriGuard® DBDCB AD can be added or metered into the final diluted cutting fluid, either prior to its addition to the system or after the system has been filled. VeriGuard® DBDCB AD should be thoroughly mixed into the system to assure efficacy. If VeriGuard® DBDCB AD is added to the concentrate, testing should be done to assure compatibility.</p> <p><i>Fiber Processing Fluids:</i> VeriGuard® DBDCB AD should be added to the make-up water of emulsions or to oil with agitation. VeriGuard® DBDCB AD is most active over a pH range of 2 - 9.5. In some formulations the product has shown efficacy in higher pH formulations. If the formulation will have final pH greater than 9.5-laboratory testing is recommended.</p>
COMPATIBILITY	<p>VeriGuard® DBDCB AD is compatible with typical ingredients in end use formulations. However, it should be added separately from amine-containing and strong nucleophilic agents during product formulations. Mixing VeriGuard® DBDCB AD with these agents may cause a reaction between the ingredients which can de-activate VeriGuard® DBDCB AD.</p> <p>CORROSION PROPERTIES</p> <p>VeriGuard® DBDCB AD is compatible with materials such as PVC, polyethylene, polypropylene, Tygon*, Teflon and glass. VeriGuard® DBDCB AD is corrosive to steel. Positive displacement pumps are preferred for handling the product. Chemical feed pumps are available.</p> <p>*Tygon is a Registered Trademark of Norton Company.</p>
STORAGE AND DISPOSAL	<p>Keep container closed when not in use. Do not contaminate water, food, or feed by storage or disposal. Waste resulting from use of this product may be disposed of on site or at an approved waste disposal facility.</p> <p>Ship and store VeriGuard® DBDCB AD between 5°C (41°F) and 39°C (102°F). Keep from freezing. Freeze-thaw cycle may cause a temporary water separation and can be corrected by mechanical agitation. The product may separate during long term storage. If the product has noticeably separated, mechanical agitation can be used to achieve a uniform dispersion.</p> <p>Store away from heat. At temperatures above 39°C (102°F), the active ingredient in the aqueous dispersion may separate out.</p>
CONTAINER DISPOSAL	<p>Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.</p>

REGISTRATIONS & APPROVALS	VeriGuard® DBDCB AD is registered by the U.S. Environmental Protection Agency (EPA Registration No. 67869-34) as a product to inhibit the growth of microorganisms in aqueous systems such as paints; latex emulsions; adhesives containing polyvinyl acetate, styrene butadiene, acrylic methyl cellulose, polyvinyl alcohol, hydroxyethyl cellulose, epoxy, polyester, dextrin and casein; in waxes, polishes and inks; dispersed pigments, joint cements; dilute and concentrate metalworking fluids; and in fiber processing fluids. VeriGuard® DBDCB AD has FDA approval under 21 CFR 175.105, 176.170, 176.180, 176.300.
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PACKAGING	VeriGuard® DBDCB AD is available in 43 pound plastic pails, 470 pound plastic drums, 2400 pound plastic bins and bulk.
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NOTICE

Seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risk of use and/or handling of this material when such use and/or handling is contrary to label instruction.

The information of this Data Sheet is offered solely for your information, consideration, and investigation and represents our current data and best opinion as to the proper use of this product under normal conditions. Any use of the product which is not in conformance with this Data Sheet or which involves using the product in combination with any other product or any other process is the responsibility of the user. This information is provided without warranties, either express or implied, and we assume no responsibility for the accuracy or completeness of the data contained herein.



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 Or write VERICHEM, 3499 Grand Avenue, Pittsburgh, Pennsylvania 15225

CHEMICAL SOLUTIONS FOR MICROBIOLOGICAL PROBLEMS