

The Next Generation of Utility Pole Treatment

About Viance

Viance is a leading provider of wood treatment preservatives, offering an extensive range of advanced wood treatment technologies and services to the global wood preservation industry. With expertise in wood biocides and wood protection chemicals, Viance technologies improve the performance and durability of wood products for sustainable building and utility pole protection.

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About DCOI, the Active Ingredient in UltraPole NXT

- The formulation for DCOI is 4,5-Dichloro-2n-Octyl-4-Isothiazolin-3-One (CAS No 64359-81-5).
- An organic, broad-spectrum biocide
- Standardized as a wood preservative by AWPA and listed as P-39 in the Book of Standards
- The first, new oil-borne industrial wood preservative in decades
- The same active ingredient used in marine antifouling formulations that won the 1996 US EPA Presidential Green Chemistry Challenge Award
- Very effective – retentions standardized by the American Wood Protection Association (AWPA) are 1/3 the retention of pentachlorophenol.
- The only oil-borne industrial wood preservative backed by a warranty – a 50-year limited warranty

Decades of stake test data commissioned by the Electric Power Research Institute the leading electric utility research organization, and monitored by Mississippi State University, a leader in wood preservative research, indicate DCOI is an extremely effective wood preservative. Tested in the challenging environments of sub-tropical plots in Dorman Lake and Saucier, MS, DCOI proved its efficacy as a fungicide and termiticide.

Oh my gosh!
IS THAT AN
ULTRAPOLE?

ULTRAPOLE[®] NXT
With DCOI

Environmentally Advanced

- A non-restricted use pesticide
- Compared to other materials such as galvanized steel, fiber reinforced composite or concrete, UltraPole NXT poles use less total energy, less fossil fuels and less water to manufacturer while producing less acid rain, less green house gases, less eutrophication, with lower eco-toxicity.
- The active ingredient used in DCOI treated wood poles is the same preservative used in the residential decks treated with Ecolife.

Environmental Impact Compared to Available Alternatives

- DCOI treated poles contain no:
 1. Dioxins
 2. Furans
 3. PAH's
 4. Heavy metals such as copper, arsenic or zinc
- DCOI treated poles contain 1/3 the preservative retention of penta treated poles.
- DCOI is not a Persistent Organic Pollutant.
- The half-life of DCOI is:
 1. 4.7 days in soil
 2. 16.5 hours in surface waters
 3. 4 hours in sediment
- The metabolites of DCOI are minimally 2.5 times less toxic than DCOI.
- The metabolites of DCOI also have short half-lives.
- DCOI has a mean K_{oc} of 6610 L/Kg - Soil Absorption Coefficient; has a low probability of migration in a soil environment.
- DCOI has very low water solubility; <5ppm.

Benefits for Electric Utilities

- DCOI treated poles have all the benefits of the penta treated pole such as:
 1. Climability
 2. Similar electrical resistance
 3. Low corrosion to hardware
- DCOI is very soluble in hydrocarbon solvents (carrier oils) so DCOI treaters and utilities have a broader array of solvent choices for pole production.
- DCOI treated poles are the only oil-borne treated wood poles with a warranty.

Benefits for Wood Pole Manufacturers

DCOI works in wood preserving facilities using the same:

- Equipment
- Treating cycles
- Solvents
- Inspection equipment
- Laboratory QC instrumentation



Treated Douglas-fir Poles and Treated Southern Yellow Pine Poles Preservative Comparison

The tables below show a comparison of preservatives used in treated Douglas-fir and treated southern yellow pine poles.

Treated Douglas-fir Poles

Characteristics	Preservative Treatment			
	Creosote	Penta	Cu Naph	DCOI
Easy to climb	Yes	Yes	Yes	Yes
Is low to no odor	No	Yes	No	Yes
Active ingredient also used in residential applications	No	No	No	Yes
Treated with a Restricted Use Pesticide	Yes	Yes	No	No
Contains heavy metals (Copper Arsenic)	No	No	Yes	No
Contains dioxins or furans	No	Yes	No	No
Contains PAH's (Polycyclic Aromatic Hydrocarbon)	Yes	No	No	No
Protected with a Warranty	No	No	No	Yes
American Wood Protection Association (AWPA) Standard Retentions (UC4C) Book of Standards <small>pcf - pounds per cubic foot</small>	12.0pcf	.60pcf	.15pcf <small>(cu is 11.75% of cunap molecule) Preservative 1.27 pcf</small>	.20pcf

Treated Southern Yellow Pine Poles

Characteristics	Preservative Treatment				
	Creosote	Penta	CCA	Cu Naph	DCOI
Easy to climb	Yes	Yes	No	Yes	Yes
Is low to no odor	No	No	Yes	No	Yes
Active ingredient also used in residential applications	No	No	No	No	Yes
Treated with a Restricted Use Pesticide	Yes	Yes	Yes	No	No
Contains heavy metals (Copper Arsenic)	No	No	Yes	Yes	No
Contains dioxins or furans	No	Yes	No	No	No
Contains PAH's (Polycyclic Aromatic Hydrocarbon)	Yes	No	No	No	No
Protected with a Warranty	No	No	Yes	No	Yes
American Wood Protection Association (AWPA) Standard Retentions (UC4C) Book of Standards <small>pcf - pounds per cubic foot</small>	9.0pcf	.45pcf	.60pcf	.13pcf <small>(cu is 11.75% of cunap molecule) Preservative 1.1 pcf</small>	.15pcf

ULTRApole[®] NXT
With DCOI

The first major innovation in treated wood pole protection in decades

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