



**SONFORD PRODUCTS CORPORATION**  
**SOUTHERN DIVISION**

P. O. BOX 8474

JACKSON 4, MISSISSIPPI

**ACCEPTED**

APR 13 1973

UNDER THE FEDERAL INSECTICIDE  
 FUNGICIDE AND RODENT BAIT ACT  
 FOR ECONOMIC POISON REGISTERED  
 UNDER NO. 167-3 SUBJECT  
 TO ATTACHED COMMENTS.

**STA-RITE**

**An Efficient Water Repellent Preservative for Wood**

**Need for wood treatment**

Water is one of the worst enemies of wood. It not only causes wood to swell and the grain to raise, but also allows stain and decay organisms to gain a foothold. Wood that is dried below about 25 percent moisture content and kept dry will not rot or blue stain. How, we might ask ourselves, can wood which gets wetter than this on occasion, be protected from decay? The answer is simple: Treat wood with STA-RITE.

**What needs treatment with STA-RITE?**

All millwork that is to be exposed to weather should be treated with STA-RITE. Window sash will give many more years of satisfactory life if so treated. With present day architectural styles dictating use of exterior doors without roof protection, the need for treatment of these is acute. Window frames and exterior door frames are also in need of protection by STA-RITE.

Wooden siding, including western red cedar, redwood, southern yellow pine, and hemlock, is improved by treating. STA-RITE stops wicking of water up the back of siding. If this entry of rain water is not controlled, paint may blister, decay may start, or insulation may be rendered less effective.

All exterior wood on houses, as well as on other types of construction should be treated with STA-RITE. The cost is small and customer satisfaction with the performance of the wood, high. In addition other wood used out-of-doors such as picnic tables and benches, outdoor furniture, fence rails and pickets, porch floors and steps, to mention just a few uses, whether painted, finished with transparent materials, or left natural will look better and last longer if first treated with STA-RITE.

Interior wood work is improved by the water repellent property of STA-RITE. Shrinking and swelling with accompanying troubles, are reduced.

**Properties of STA-RITE**

STA-RITE is not only a wood preservative but also a water repellent. Research shows that both of these attributes are necessary for maximum wood protection. One supplements the other. Since the solution is light colored, it only darkens wood slightly. After adequate drying time any kind of paint suited to wood may be used.

**A summary of the properties follows:**

<b>Ingredients:</b>	
Pentachlorophenol, percent	4.48
Other chlorophenols, percent	.52
<b>Weight per gallon @ 100° F., pounds</b>	
Flash point, Tag. CC., minimum, °F.	6.8
Water repellency, NWMA, minimum, percent	105
Paintability of wood dipped 3 minutes - Satisfactory	65
Puttyability of wood dipped 3 minutes - Satisfactory	

**Paintability: (See above table)**

This presupposes that adequate drying time is allowed for the solvent to evaporate from the wood. The wood should be separated by stickers during treatment, or at least loosened in the bundle. The pieces should be stickered when drying for faster paintability. During warm weather, above 75°, about 12 hours drying time is needed on ponderosa pine or sugar pine given a 3 minute dip. If longer immersions are used, resulting in higher retentions, or drying conditions are poor, as in Winter, as much as 72 hours may be required for unimpaired paintability.

**Specifications:**

Meets National Woodwork Manufacturers' Association requirements for water repellent wood preservatives.

Meets Federal Specification T T-W-572.

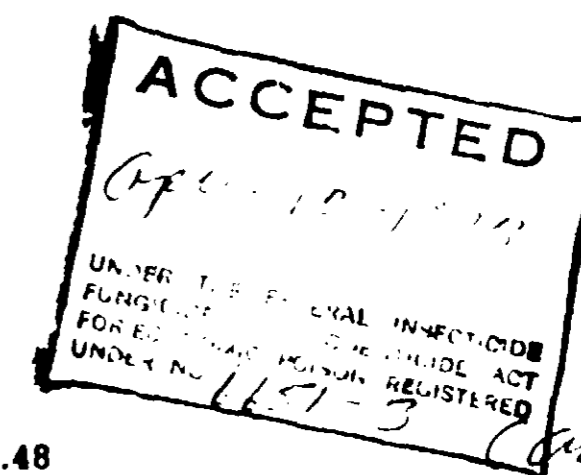
These specifications include requirements on preservative content, paintability, water repellency, color, odor, flash point, stability, resistance to sludging, and penetration of wood.

**Coverage:**

One (1) gallon of STA-RITE will treat 40 to 45 average size single sash of ponderosa pine in a three (3) minute immersion.

**Treatability of various species**

Not all species of wood absorb preservative as readily or satisfactorily as ponderosa pine sapwood. While water repellency is primarily a surface effect, preservation is not. In order for a substance to preserve wood it must penetrate wood some distance. For example, the National Woodwork Manufacturers' Association requires 1-1/2 inches penetration into the end grain. This is adequate for window sash and doors. It is easily attained in the sapwood of many species, but not in the heartwood or in some recalcitrant sapwoods. It is also well to point out that end grain penetration is always deeper than side grain. The same holds true for penetration of water. Thus, end grain in a wood item should be well protected for most above-ground uses by a short treatment. However, since penetration is usually much less in side grain, as much necessary boring or cutting in side grain as possible, should be done before treatment. Otherwise, the shallow side penetration will not protect the surface when cut or heavily sanded.



**ACCEPTED**  
*Cupc. 13173*  
 RECEIVED  
 6651-B *Common*

As can be seen in the table below, pressure treatment results in the most effective protection for wood. STA-RITE, although discussed in this bulletin from the standpoint of light, immersion treatments, is being used also in pressure treatments. Where a clean, non-discoloring preservative is needed for lumber in construction, boat docks, farm and highway construction, and the like, pressure treatment with STA-RITE is often used. It is not, however, as suitable for use in soil contact as solutions made with the heavier, darker oils.

Retention and penetration depend on the method of treatment and the species of wood, moisture content of the wood, and individual wood characteristics. An example comparing 2 x 8's of Douglas fir and Southern yellow pine by various methods is shown below:

Treating Method	Pressure			Vacuum			3 Minute Dip		
	Retn., Penetration			Retn., Penetration			Retn., Penetration		
Species	lb./cu.ft.rad.long.			lb./cu.ft.rad.long.			lb./cu.ft.rad.long.		
	ft.	inches		ft.	inches		ft.	inches	
Douglas fir	14.5	1.23	12.5	7.8	.12	2.9	.3	.01	.56
Shortleaf pine	8.2	2.16	23.9	12.4	2.3	22.7	.4	.04	1.08

In a dip treatment much of the absorption occurs in the first few minutes. Thus, a few minutes immersion is remarkably effective where wood is exposed away from soil contact.

The table below, compiled from information in Report No. 1445 of the U. S. Forest Products Laboratory, Madison, Wisconsin, reveals information on the relative penetrability of common woods.

**Relative Penetration of Sapwood in Radial Direction by Soaking**  
 Listed from deepest (top of column) to shallowest

<b>Softwoods</b>	<b>Hardwoods</b>
Southern yellow pine	Sycamore
Ponderosa pine	Oak, red or white
White pine	Beech
Fir	Hickory
Cypress	Basswood
Douglas fir (coast type)	Cottonwood and Aspen
Redwood	Ash
Hemlock	Birch
Spruce	Maple, soft
Western red cedar	Elm
<b>Packaging</b>	<b>Gross Weight</b>
5 Gallon Cans	39 lb.
55 Gallon Drums	424 lb.

# STA-RITE

## DIRECTIONS

Treat only dry wood. Unseasoned or wet wood does not absorb STA-RITE properly.

For control of decay, fungus stain and powder post beetles where a structure is already in place apply two liberal coats of STA-RITE by brush at 5 to 20 minute intervals. Make certain the end grain is thoroughly treated as it is most susceptible to rot. For structures to be used in more severe exposure such as lawn furniture or porch floors already in place, apply 4 coats of STA-RITE.

For control of decay, fungus stain, powder post beetles and termites where wood can be treated before assembly or attachment to a structure immerse one inch wood that is readily treated, such as pine sapwood, in STA-RITE for 3 minutes. This is ample for window sash, frames, siding, and trim. For thicker lumber immerse a minimum of 5 minutes per inch of thickness. For more severe exposure such as sills, joists, plates, decking, immerse for 24 to 48 hours.

If necessary to cut treated wood, apply a liberal coat of STA-RITE to the cut surface.

Although STA-RITE will increase the life of wood in soil contact over untreated wood, it is not recommended for this application as our PENTA CARE will give better protection in this exposure at lower cost.

DO NOT USE, POUR, SPILL OR STORE NEAR HEAT OR OPEN FLAME.

## WATER REPELLENT PRESERVATIVE FOR WOOD

**CONTROLS** Decay, Fungus stain, Powder post beetles, Termites on Wood

**GUARDS** Wood from Checking, Grain raising, Opening of Joints, Absorption of Water, Swelling, and Shrinkage

### ACTIVE INGREDIENTS

Pentachlorophenol	4.48%
Other Chlorophenols	.52%
Petroleum Distillate	88.00%

INERT INGREDIENTS 7.00%

## WARNING KEEP OUT OF REACH OF CHILDREN

Causes skin irritation. Harmful or fatal if swallowed or absorbed through the skin. Do not breathe spray mist. Do not get in eyes, on skin or clothing. Wash thoroughly after handling. Do not take internally. In case of swallowing induce vomiting by administering warm salt water or emetic. Do not contaminate feed or food stuffs. Do not use on products that will be used in contact with food or feed or contacted by children.

Wear protective clothing and rubber gloves when handling freshly treated lumber.

This product is toxic to fish and wildlife. Keep out of lakes, streams, or ponds. Do not contaminate water by cleaning of equipment or disposal of wastes. Apply this product only as specified on this label.

Treat window sash before application of putty to reduce loss of oil from the putty into the wood.

Do as much cutting, boring, planing, and sanding as possible before treating wood with STA-RITE.

Before painting the treated wood allow to dry thoroughly. This generally requires about 12 hours in warm weather (75°F or above) on pine and 48 to 72 hours on redwood, cedar, Douglas fir, and in cold weather. Allow the air to contact all sides of the treated wood.

### Coverage:

One gallon of STA-RITE will treat 40 to 50 average single sash of pine in a 3 minute dip. By brush application one gallon will cover about 150 square feet. Other retentions can be found in the STA-RITE bulletin.

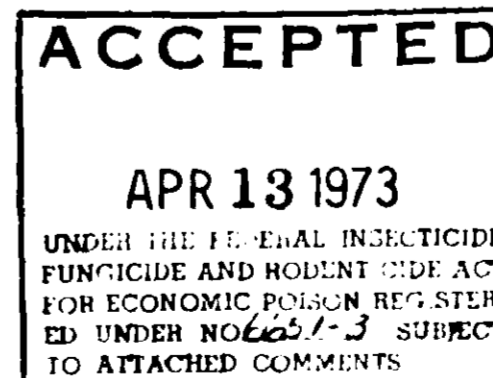
BUYER ASSUMES ALL RISKS OF USE, STORAGE OR HANDLING OF THIS MATERIAL NOT IN STRICT ACCORDANCE WITH DIRECTIONS GIVEN HEREWITH.

E.P.A. Registration No. 6651-3

Net U. S. Gallons \_\_\_\_\_

## A PRODUCT OF

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NORTHERN DIVISION  
100 EAST BROADWAY  
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