Extreme Low VOC Stains 3/20/2008

Maclac Product Line Information Sheet

R.J. MCGLENNON CO. INC. 198 UTAH STREET SAN FRANCISCO, CA 94103

PHONE (419) 552-0311 FAX (419) 552-8055

19 SERIES ULTRA LOW VOC STAIN

Description

Maclac 19 Series stains incorporate the best properties spray and wipe stains at ultra low VOC levels.

The Coating VOC limit for these colors is set at 240 G/L (2.00 Lb/Gal.)

Note: The ELS-931 White Stain is a low solids stain – (Use Material VOC).

These stains are formulated to be used under Maclac Low VOC Lacquers.

These stains are non-drying so they require a lacquer topcoat for dry and durability. These stains are made to be applied only to bare wood. They are made to penetrate the wood and color it. The 19 Series stains should not be added to lacquers or lacquer sanding sealers. If you add these stains to lacquers - or use the stain on top of a lacquer - or between two coats of lacquer, you will weaken adhesion and affect the dry and durability of the lacquer.

Note: the 1910 clear stain base is formulated to accept colorants made in solvent borne alkyd - such as Maclac UTC (824 & ExacTint) line of pigments. They will also accept solvent dyes such as Maclac solvent borne (11 Series) dyes. Colorants in a solvent borne acrylic base system may also be used. Do not use the "universal" type of colorants (this is the type that may be put into both water paints and solvent base paints).

Generally, adding pigment colorants will increase the solids and in most cases will lower the VOC (see specific colorant data sheets). Adding dye colorants will lower the solids and may increase the VOC.

Specifications

These Specifications are averages – see specific product data sheets for exact data

Weight per Gallon: 6.9 - 7.7Maximum Coating VOC: 240 G/L 2.00 Lb/gal Solids by Weight %: 18.0 - 31.0Material VOC: 50 - 70 G/L 0.41 - .59 Lb/gal

Solids by Volume %: 24.0 - 28.0

Surface Preparation

These stains may only be applied directly to bare wood. A stain works by absorption into the wood. Do not apply these stains to previously sealed wood.

Notice: no Maclac paint product has ever contained any lead. But if you are preparing previously painted surfaces with unknown paints please observe the following precautions. Warning! If you scrape, sand, or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a NOISH-approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead.

Mixing & Thinning

Mix well by stirring or shaking before application; no thinning is required or recommended.

Guidelines for making stains with the ELS-100 Clear Base:

- 1. Generally do not add more than 1 pint (approximately 1 to 2 lbs.) of colorant to 1 gallon of stain base.
- Too much colorant will leave excessive pigment and resins in the wood and will degrade lacquer adhesion. Solvent dyes may be added - but watch the VOC.
- 2. Do not use Mineral Spirits (also called Paint Thinner) to adjust the wiping or flow properties of the stain. Mineral spirits is incompatible with this stain base and lacquer topcoats. If you need to cut back on the stain, use Maclac T-162. This product is a strong solvent that is compatible with the stain and the lacquers - but use with caution as it will increase the VOC.
- 3. Keep in mind that sometimes a darker color requires more penetration into the wood, and adding either strong solvent or more stain base will help the penetration.
- 4. Some very dark colors may have to be made with a combination of dyes with the pigment colorants. The dyes penetrate deep into the wood, and leave a stronger color. Use dye solutions sparingly in this base - as they will affect the VOC level.

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LIMITED WARRANTY

The information contained herein is offered to assist customers in determining whether our products are suitable for their applications. We request that customers examine our products before use and satisfy themselves as to their suitability. We warrant that our products will meet our written specifications. Since application circumstances, substrate condition and product intermix are beyond our control, we cannot guarantee results under all possible situations. R.J. McGlennon Co. Inc. makes no representation as to the results the user will achieve.

Technical advice furnished by seller or any seller's agents shall not constitute a warranty. Any liability arising out of any condition resulting from the use of any R.J. McGlennon Co. Inc. product shall be limited to

replacement of such product.

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Application & Dry

These stains may be applied by spray or brush. Apply the stain and then wipe dry with a clean rag. The wiping should be done within 5 minutes of application. Wipe the stain very thoroughly into the wood. The color should be uniform and the surface should appear completely dry. Do not allow any wet stain to remain at the surface of the wood, excess wet stain will slow the dry of the lacquer, and it will affect the adhesion of the lacquer.

If the stain appears dry it may be lacquered right away. Since it is a non-drying stain it relies on the lacquer to achieve dry. Be sure to apply the first coat of lacquer material wet enough so that it will penetrate the stain and bond to the wood.

Environmental & Safe Handling

In the majority of air quality districts stains are regulated by two categories: High solids stains and low solids stains.

This product line information sheet deals with the high solids stains. See separate data sheets for the low solids products in this series. Since air quality regulations are not consistent around the country, or even within the state of California, check local air quality regulations prior to using this product. Warning; product is flammable, do not use near flames, sparks, or any potential ignition source. Do not smoke while using this product. Do not breathe vapors; use only in well ventilated areas. Avoid prolonged or repeated skin contact. Even though this material does not contain any oxidizing oils we still recommend you store rags soaked with this product safely in a metal container and dampened with water. Soak up spills with inert absorbent.

Since hazardous waste regulations are not consistent throughout the country contact your local hazardous waste agency with information from the MSDS to get instructions for proper disposal. Section 2 of the MSDS contains components considered hazardous in the product as supplied. See the material safety data sheet for more information.

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