



The PAINT MILL



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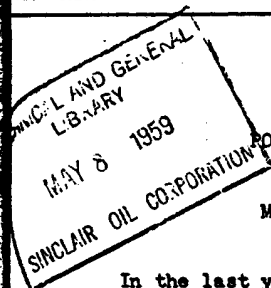
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POTENTIAL TOXICITY OF LEAD CONTAINING PAINTS

by N. T. Phelps
Manager, Paint Production, Marcus Hook, Pa.

In the last year or two, considerable emphasis has been placed by various States and Cities, including New York City and Baltimore, on restricting the use of paints containing lead pigments and other lead compounds. The restrictions have been aimed, primarily, at paints which are used on objects which might be chewed by small children. This includes furniture, baby carriages, children's toys and interior woodwork. It is the opinion of the National Paint, Varnish and Lacquer Association that the danger of lead poisoning from paint ingestion has been somewhat overemphasized. The Association has been instrumental in persuading the States and Cities involved to use moderation in writing their ordinances pertaining to lead containing paints. Generally, the ordinances require the paint formula to be shown on the label and a warning statement to the effect that the paint contains more than a specified amount of lead (usually 1%) and should not be used where it might be chewed by children.

Although in a different category, the danger of domestic animals being poisoned by eating paints containing lead pigments is of some concern. There are cases on record where, apparently, cattle have died after eating lead containing paints. Due to differences in the digestive systems, cattle are more susceptible to lead poisoning than humans.

It is not our intent to unduly alarm anyone over a remote potential danger from using lead containing paints but to indicate the trend of present day thinking. We agree that, if eaten in large doses, paints containing high lead content could, possibly, cause poisoning of humans and domestic animals. We do not believe that paints containing relatively small amounts of lead constitute any significant danger.

burns, whereas the parts of the skin behind the white or light colors were left unscorched, leaving a ghastly pattern of burned and unburned flesh to correspond to the patterns on the clothing.

On a less grisly note, the following example will further attest to color having a great capacity for affecting temperatures.

The French scientist Piccard had the gondola of his balloon painted black before soaring on his first flight into the stratosphere. Although the outside temperature was a 75° F. below zero, the gondola had an inside temperature of over 90° F. above zero. On his second ascent, the gondola was white. This time the inside temperature dropped to below freezing. When two American balloonists, Settle and Fordney went out to establish an altitude record, the top half of the gondola was white and the lower half black. At an altitude of twelve miles, the temperature at the top of the gondola was near zero and a 100° F. at the floor. This resulted in a generally comfortable mean temperature inside.

These amazing discrepancies have stimulated the study of using color vs. temperature commercially. For years, gasoline and solvent storage tanks were painted black, gray or red lead. It was discovered that over a period of months, the dark tanks lost nearly 4% of their contents due to evaporation. When the tanks were painted white, or a very light gray, the loss dropped to less than 1%. Since these tanks exceeded 10,000 gallons in capacity, this loss was costly indeed. In spite of these findings, it is unfortunate that suppliers of gasolines and solvents still use a black drum in most cases. It is common practice in the manufacture of paints to replace the bung cap finger tight, or not at all. One can readily appreciate the loss due to evaporation. The black sides of the drum hasten this loss - and as the "fastest" solvents are also the costliest, light colored drums would certainly be in order to help reduce this waste.

The supersonic age is also having an effect on the type and color of paints used in the missile field and military flying. For years the Navy's operational aircraft were a dark blue. But since most of its present fighter craft is capable of exceeding MACH I, the color was changed to off white. At very high speeds the skin friction generates sufficient heat to be dangerous to pilot and machine, and this light color helped reduce this heat. And although leaving the airplanes unpainted would have nearly the same cooling effect, the Navy must of necessity paint its carrier borne airplanes because of salt water's corrosiveness. Functionally speaking, white is a poor color, as a downed at sea airplane can easily pass for a white wave, from a high altitude. However, the color must be light.

Different applications for using color as a "magic" thermostat are being compiled daily. Refrigerator box cars and trucks are painted white to help the cooling machinery perform its task. Candy manufacturers have found that chocolate bars wrapped in aluminum or a lightly colored wrapper helps keep the contents from melting. Advertisements inviting us to spend vacations in the tropics show ocean liners painted white. This color keeps the hold at least 10° cooler than if it were the traditional black.

In hotter weather, clothing should be as light colored as practicable. The white house is still good insurance against summer discomfort. Some years ago, baby carriages were black. Today's younger set rides in gayly light colored buggies, look very happy, and are not likely to develop persecution complexes as a result of being stuffed in a stifling hot black carriage.

Warren Cox, the noted authority on lighting and color suggests that in order to keep a room cool, it should be painted dark colors. His throtty is that dark colors absorb and retain heat, and since reflected heat causes the discomfort, dark colors in this instance are in order.

As a final note, we can't help but cite the following story. At the peak of World War II, the Russians needing the lend-lease supplies desperately, helped allied shipping enter the ice-choked ports in winter by simply sprinkling soot and coat dust on the ice, thus hastening a thaw. The black dust did the trick.

These little notes should help those engaged in the sale and application of paints to plan their colors wisely, since using the right shade to control temperature is relatively simple. Do you want it warm, or do you want it cool - then proceed accordingly to apply paints of the correct reflectance.



PAINT, OFTEN A THERAPY...
MANY A HOUSEWIFE HAS LEARNED THAT A LITTLE PAINTING IS A WAY TO RELIEVE THE TENSION OF MULTIFOLD DOMESTIC PRESSURES - BY THE TIME A DINGY CLOTHES CLOSET HAS BEEN GIVEN A COAT OF FRESH PAINT, THE WASHED TROUBLES HAVE FLOWN AWAY -

Shit COLORFUL WORLD...
By CALVIN FADER

PAINT STRATA

HISTORIC BRICE HOUSE IN ANNAPOLIS, MD. WAS BUILT BETWEEN 1740 AND 1770, AND WAS ONE OF THE FIRST GREAT RESIDENCES OF THE ERA TO USE INTERIOR PAINT THROUGHOUT - RECENTLY, IN REFURBISHING THE 35 ROOM MANSION, 16 COATS OF PAINT WERE UNCOVERED BEFORE THE DELICATE, FAINTLY YELLOWISH GREEN OF THE ORIGINAL PAINT, USED IN THE DINING ROOM WAS REACHED -



ALMOST TEN CENTURIES HAVE PASSED SINCE LEIF ERICSON REACHED THE SHORES OF NEW ENGLAND AND TOOK BACK A CARGO OF TIMBER TO THE VIKING COLONY IN GREENLAND - TODAY, FORESTS, COVERING 640 MILLION ACRES, CONTINUE TO GIVE THE NORTH AMERICAN, LUMBER FOR HIS CITIES, TOWNS, AND FARMS - ALL, INCIDENTALLY, REQUIRING PAINT -

Courtesy American Paint Journal

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