Any Colour as long as it's Green!

Tired of suffering from the fumes of his trade, painting, Daniel wondered if there was a better way, and discovered natural paints. Now his firm is developing professional courses in natural coating technology.

by Daniel Wurm
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NEXT time you redecorate or build it is worth considering the environmental impacts of the paints you choose. Painting is still an environmentally-friendly thing to do, as it preserves and protects assets, but it has to be done in a way that lessens its impact on natural resources.

I started researching paints and their effect on the environment about five years ago. Being a professional painter for 10 years at the time, I used to think about what my occupation was doing to my health. I knew I was getting headaches regularly, and would have difficulty breathing after using certain paints. I decided I would either get re-trained or find better products. I eventually discovered that there are many manufacturers who were making safer alternatives, such as plant-based and mineral-based paints.

One day I went down to the closest natural paint retailer and asked to try some of their products. It turned out that they were looking for a painter to use the paints regularly, so I decided I would give it a go. I've been hooked ever since.

Paints, lacquers and varnishes are among the chemical everyday products that have a particularly distinct effect on environment and health. Solvents, monomers, softening agents, and biocides are only some of the components of these products that present the potential for serious ecological and toxicological risks during their production, manufacture, application, use, and ultimate disposal.

Paints are a major source of indoor air pollution. Conventional paints can make indoor air a chemical cocktail, even long after they have dried, as they continue to release petroleum-based solvents, called Volatile Organic Compounds (VOCs) as they cure. It is estimated that each year in Australia more than 80 000 tonnes of VOCs are released into the atmosphere, with the paint industry contributing significantly to this amount. VOCs from solvent and paint emissions contribute to harmful ozone formation and peroxyacetyl nitrate.

Conventional paint emissions

According to the Master Painters Association, ozone from paint emissions "irritates eyes, nose, throat and lungs; reduces breathing capacity even in healthy adults and children; increases susceptibility to infection, hospital visits and admissions; and causes damage estimated to cost millions of dollars per year to crops and buildings."

Other chemicals in conventional paints include glycols, toluene, hydrocarbons, xylene, and ammonia. Mineral turpentine (used as a thinner and solvent) may contain up to 20 per cent benzene, which is a confirmed carcinogen and mutagen in chron posed workers. Acrylic paints are r er than oil-based paints because t less hydrocarbon solvents. Howev paints typically include a range of b protect the latex, which can incluc disulphide, phenol, copper, forma carbamates, permethrin and quate monium compounds. Having thes cals coating our walls and in th breathe is surely not desirable.

Another problem with synthe is post-application wastage and The petrochemical paints that curre inate the market are predominantl from oil, a non-renewable resource needs to be specially treated to avoi environmental impacts. It has b mated that water-soluble gloss pain dilution of 40 million to one to rer entry to the sewerage system harml

The benefits of choosing lov VOC paints are obvious — apart ing better for the environment, the tle or no fumes when painting. T sustainable coatings are plant- and based paints, which are made using occurring ingredients, and therefor require high levels of processing. the ingredients are made from rene sources, such as linseed oil, and c Natural paints use plant-derived solv binders instead of synthetic ones, s

Left: Using natural paints eliminates paint-induced headaches and breathing difficulties.

DC levels of between zero and one
. Ingredients used are printed on the
on a technical data sheet, which can
ulted to establish whether allergic re-
are a risk.

sing these paints results in bet-
lth outcomes, and uses renewable
es for sustainable living. Some of
nts are even certified carbon-neutral.
paints account for nine per cent of
les in Europe.

atural and mineral-based wall paints
form a waterproof film on the sub-
This means they are less resistant to
and are less likely to peel or blister.
they are water-vapour-permeable,
ow better regulation of humidity and
e levels in the house. They also are
fire-resistant and have natural anti-
nd antiseptic qualities.

find that it is easier to touch-up natu-
ts when they do get marked. Instead
obing your walls with some poison-
mical, gently wipe them with clean
nd touch them up with some of the
paint you have kept. The matt finish
w you to do small areas without hav-
o the whole wall.

Natural timber oils

There are also gloss enamels made from natural ingredients, and you can't beat natural timber oils for their ability to enhance the natural look of timber. They aren't as glossy as synthetic polyurethanes, but they actually reduce maintenance in the long run because scratches and marks can easily be repaired without having to sand the coating back before refinishing.

With climate change impacting on our water resources, it is important that wastewater can be reused. Water used to clean up after using natural paints can be used directly on gardens, without harmful effects to any plants, or groundwater contamination.

You can have almost any colour as long as it's 'green!' Some of the projects that have been finished with natural coatings have won awards, and several have featured in architectural journals. Since establishing GreenPainters, a not-for-profit program that aims to raise awareness of sustainable paints and painting practices, the concept of 'green' technology has gained wide acceptance. Our website provides objective summaries of sustainable paints and coatings, and information to help builders and DIYers achieve the look they want while being eco-sensitive and health-conscious. In association with Sustainability Victoria we are currently developing a nationally accredited training course that will train painting contractors to use natural products and change their attitudes to sustainability.

Update

There are several new natural paint products coming onto the Australian market, including paints made from collagen extracted from eggshell waste, and Australia's first locally-made clay paint range — Rockcote. GreenPainters, in collaboration with Sustainability Victoria and Holmesglen TAFE, has developed the Accredited Course in Sustainable Painting Practices, which is a formal qualification for professional painters interested in improving their environmental impact. It is currently running in Victoria, but will be available Australia-wide soon.

In response to the huge increase and interest in natural paint products, we are also developing a Course in Natural Coatings, which will be a short course on natural paint theory and application techniques. It is being supported by several leading natural paint manufacturers and will be available for painters, DIYers and anyone interested in the subject. We hope to run it at learning centres around Australia. Please contact us to register using the web site.

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