

paint a clearer picture

story > Jeanie Watson

With harmful toxins in many paints, is there such a thing as a 'fresh' coat?

One of the most simple and effective ways to update a room or house is to change the colour of the walls or façade. But how does 'toxic turquoise' or 'carcinogenic cerise' grab you? It's an unfortunate fact that many paints that enhance, protect and preserve your home can also be harmful to you and your family.

'All paints are chemicals, either naturally occurring or man-made,' says Daniel Wurm, managing director of GreenPainters Ltd (see box below). 'We are constantly discovering the impact that chemicals have on our health. Decades ago it was lead, now it is VOCs.'

Volatile organic compounds (VOCs) are defined by the World Health Organization as 'all organic compounds (substances made up of predominantly carbon and hydrogen) with boiling temperatures in the range of 50–260°C, excluding pesticides'. These chemicals are found in various products ranging from paints and fabrics to room deodorisers and cleaning substances, and often have an odour.

In general, the stronger the odour in products such as these, the more VOCs they contain.

According to the Department of Water, Environment, Heritage and the Arts, the impact of VOCs on humans can range from respiratory irritation, headaches, and loss of coordination to nausea and damage to the liver, kidneys and central nervous system. Some VOCs can cause cancer in animals while some are suspected or known to cause cancer in humans.

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This concerning information has led to the release of low-VOC alternatives to almost all kinds of paints and coatings, including enamels and primers. But the primary reason for choosing low-VOC paints is that VOCs react in the atmosphere to create ozone gas, which contributes to smog formation and causes crop damage, says Daniel Wurm. 'Up to nine per cent of all VOC emissions come from paints,' he says. 'That is why builders and consumers interested in sustainability should use low-VOC paints for exterior applications as well as interior.'

risk factors

The long-lasting impacts of VOCs depend on the:

- concentration of the vapour in the air
- composition
- length of exposure.



Photos courtesy of GreenPainters Ltd

GreenPainters

GreenPainters Ltd is a not-for-profit organisation and an Ecospecifier Industry Partner. Its role is to provide training, advice and the skills to promote the latest sustainable coatings technology, as well as to represent painters and manufacturers who are leaders in the green building industry.

The GreenPainters program aims to cut VOC emissions by participating contractors by 92 per cent, and eliminate ground and storm water contamination from wash-up. Waste-water produced by a GreenPainter is treated and/or recycled to EPA guidelines, or can be used directly on gardens without harming any plants, or contaminating groundwater.

For more information visit greenpainters.com.au

LEFT & BELOW: Low VOC paints should be used inside and outside to reduce all environmental emissions



reach a new level

Ways to lower the levels of VOCs and other toxins in your home:

- don't use solvent-based paints
- buy products with the appropriate and highest level of certification for the job
- reduce materials around the house that require painting
- avoid excessive use of air fresheners and other toiletries that contain VOCs
- consult with suppliers or manufacturers of products that you're concerned about
- ensure adequate ventilation throughout the house, especially after purchasing new furnishings
- look for quick-drying or pre-dried products.

When choosing paint, consider:

- how the paint might affect your health and the environment
- any allergies to certain chemicals
- children and pregnant women
- if the house is being built using mainly natural products
- heat-reflective coatings on the exterior to increase building energy efficiency [heat-reflective coatings can cut cooling costs by up to 40 per cent, and have longer paint recoat cycles, usually 15 years].

However, there is some concern that low-VOC paints don't provide equivalent quality to a high-VOC paint in terms of being durable, washable, and quick and easy to dry.

Daniel is quick to clarify the issue.

'Low-VOC wall paints do offer the same durability and so on as conventional paints,' he says. 'And almost all manufacturers now have their premium line as low-VOC, so it will not cost you any extra which is a bonus.'

'However, most low-VOC paints are manufactured using petrochemicals so make sure you also consider the benefits of natural paints derived from plant/mineral sources. If you choose low-VOC acrylics, look for the Good Environmental Choice Australia (GECA) tick and logo, which means the manufacturing process has been independently evaluated.'

Some advantages of low-VOC paints include:

- low odour
- quick drying
- non-yellowing
- superior fade resistance.

Advances in technology and increasing focus on the environment are helping to clean up the paint industry.

For example, most paints contain biocides that prevent the liquid paint from growing mould and allow a longer shelf life. These biocides can also leach out after application. Some new GECA certified products available on the market are now biocide free.

'Acrylic paints are manufactured using petrochemicals,' Daniel says. 'As we reach peak oil production, we need to find alternatives. To this end, some manufacturers are investing in paint technology using renewable or highly abundant resources, such as clay, and plant oils.'

The disposal of paint is also a major environmental concern. Unwanted and unused paint can be donated to community organisations or charities, and some councils and state governments have schemes in place where consumers can bring their unwanted paint for recycling.

Daniel offers the following tips for the responsible use and disposal of paint:

- Never clean brushes or rinse paint containers into a street gutter or drain.
- When you are finished working, squeeze out excess paint back into the paint tin.
- Seal the lid securely and store the paint upside down, which creates an airproof seal around the lid. Keep excess paint for future touch-ups – this will allow you to maintain your paintwork without necessarily having to repaint.
- Use one container of water to clean brushes and another to rinse it. Leave the first container overnight to allow paint solids to settle to the bottom of the container. After settling takes place, carefully pour the cleaner water onto a garden or grassed area. Wipe out the solids with a rag and allow to dry before disposing into the garbage.
- Check with your local council for your closest hazardous waste depot for recycling unwanted paint and paint tins.
- Paints made from plant-oils or clay may be able to have their waste composted.

As consumers become more educated and focus on creating a healthy home environment, we should all eventually be able to breathe a little easier. **gs**