



Wickless candles work by heating a fragranced wax to around

50C. The heat is generated by a small bulb or LED. The majority of models are plugged into the wall socket, fragrance your room and product a gentle relaxing light. Manufacturers extol the various safety benefits of traditional candles and their more modern plug-in counterparts. So why are there such concerns about their safety?

If we start with the scented wax. It is stated by most manufacturers that the base is Paraffin wax with the addition of fragrances. Of course there is no such thing as an all-natural oil scented like birthday cake, blueberry cheesecake, or "Central Park Pralines." It's just not possible. The fragrance oils may well be promoted as not containing phthalates, but your typical "fragrance oil" may contain over 100 different chemical compounds such as amines, ethers, ketones, lactones, terpenes and thiones. Many also contain benzene derivatives, aldehydes, and other toxins shown to cause cancer, birth defects, central nervous system disorders, neurological disorders, and allergic reactions. These compounds also get into the air and can have grave effects on the ecosystem. This article is not intended as scaremongery, the concentrations of these chemicals in the air in your room is likely to be very low. But exposing yourself repeatedly to something you know to be toxic is perhaps now wise.

Safer than a naked flame candle? The manufacturers of wickless candles use this as a major selling point. In comparison with a candle left in a room with children and animals running about the risk of fire is obviously much lower. But who would leave their kids and animals in a room unattended with lit candles? So some of the examples and claims might be a little misleading. After all wax melted and heated to 50C can give some pretty nasty burns if it were to be spilt on your skin. It will also ignite if it is in the proximity of a naked flame.

This brings us to the most readily attestable risk of wickless candles, fire caused to unit failure.

The body of these products is usually a glazed ceramic which is more than capable of withstanding the stresses of being heated. However there are well documented cases of units which obviously had unseen flaws shattering and even causing fires. Check You-tube if you'd like to see some quite frightening video evidence. Not unlike plug-in air fresheners which have been proved to have caused several house fires in various countries and have been subsequently banned in various regions, you have a fairly dangerous combination of elements to leave unattended. An electrical device that generates heat, which is plugged into the mains and a volatile and flammable liquid at high temperature. It doesn't need much to go wrong for these elements to combine in a quite dangerous way.

On balance personally I think I'd be inclined to stick with fragranced candles if I feel the need to make my room smell of essence of russet apple root or potato petals.... Or perhaps open a window when I'm cooking if the fragrance of curry is unlikely to be welcome in the morning.

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