



## Candles

Candles are now a common decoration item in homes. Candles are primarily used to create ambiance and relieve stress. However, candles can significantly contribute to the indoor air pollution in your home.

### Wax:

- Burn soy candles rather than oil based candles. Soy-wax candles burn cleaner and slower, are non toxic and do not emit petrol-carbon soot. Soy is both a renewable and a biodegradable resource.
- Beeswax candles are a better choice than paraffin wax but often times a beeswax candle will contain **some** paraffin wax. Beeswax candles produce a ‘cleaner burn’ compared to paraffin wax – a petroleum product.

### Wicks:

- Wicks should burn down evenly with the wax.
- Choose candles with thin, braided wicks.
- Avoid candles with very thick wicks and those with a wire core holding the wick upright.
- Avoid multiple wick candles.
- Candle wicks are often made of chemically grown, cotton that has been bleached using dioxins.
- Wicks with metal down the middle are the most hazardous, as they contain lead

### Scented candles:

- Materials used for aroma can be divided into two groups, essential oils/ plant extracts or fragrant chemicals. Read the labels carefully before purchasing your candles. Consumers can be fooled by product descriptions which lead them to believe they are buying healthy, aromatherapy candles, when in reality the candle is primarily a petroleum wax, with synthetic scent, synthetic fixatives and a small amount of plant essential oil.
- Essential oils are extracted from trees, shrubs and flowers from all over the world. Each essential oil has its own unique chemical makeup.
- Fragrant chemicals are usually derived from petroleum and sometimes animal sources



- It is not uncommon for candle manufactures to combine artificial fragrances with essential oils, or to dilute the essential oils with synthetic fragrance. Many synthetic fragrance chemicals can pose a wide range of immediate and long-term health hazards. Up to 95 percent of chemicals used in fragrances are synthetic compounds derived from petroleum.
- Avoid aromatic candles. If you do use a scented candle make sure the fragrance used was specifically formulated for candle use. Avoid wax that contains volatile aromatic hydrocarbons

### **Soot:**

- Soot is a product of incomplete combustion of carbon-containing fuels, usually petroleum-based. Soot results from use of candles and other indoor combustible materials like incense, potpourri and oil lamps.
- Soot particles are very small and are easily inhaled and deposited deep in the lungs. Soot discolours walls and furniture, and makes its way into the ventilation system in your home. The very young, the elderly and those with respiratory diseases like asthma should avoid exposure to candle soot.
- In order to obtain the romantic bright yellow and white light, candle flames produce soot. If there was such a thing as a soot-free candle, it would produce a blue flame similar to those seen from a gas stove.

### **Burning the candle:**

- Burning petroleum based candles release pollutants such as benzene, styrene, toluene, acetone and particulate matter into the air. Candle soot contains many of the same compounds given off from burning diesel fuel.
- Scented candles give off odours that often aggravate asthma symptoms. Monitor asthma symptoms closely. Do not use candles when asthma symptoms are present.
- Candles that are not properly manufactured, or that contain quantities of fragranced oils that are not suitable for combustion can add to indoor to indoor pollution.
- Place candles in a draft-free spot. Increase ventilation in rooms where candles are burning, while avoiding direct drafts on the candles.
- Trim the wick down to  $\frac{1}{4}$  inch, before lighting the candles to keep the flame low.
- Burn your candle in wide mouth containers. Narrow mouth containers restrict the airflow resulting in flickering.