

Is there any lead in candle wicks?

A myth that can still be found on the internet and in media reports is that candle wicks contain lead and can be a health risk for consumers. The truth is, however, that lead wicks have never played the same role in Europe as in other parts of the world and have not been used by European candle manufacturers for decades.

About candle wicks

The purpose of a wick is to deliver fuel to the flame. Acting like a fuel pump, the wick draws the liquefied fuel up into the flame to burn. There are hundreds of different styles and sizes of wicks. The type of fuel used in a candle, as well as the candle's size, shape, colour and fragrance materials all impact the wick choice. Selecting the correct wick for a specific candle is critical to making a candle that burns cleanly and properly. Reputable candle manufacturers take great care in selecting the right wick to meet the burn requirements of a particular candle.

The most commonly used wicks today are made from braided, plaited or knitted fibers, mostly cotton, to encourage a slow and consistent burn, and they curl in the flame for a self-trimming effect. Cored wicks, which are mostly used in jar candles, outdoor candles, pillars, votives and devotional lights are less common. These braided or knitted wicks use a core material to keep the wick straight or upright while burning. The wicks have a round cross section, and the use of different core materials provides a range of stiffness effects. The most common core materials for wicks are cotton, paper, zinc or tin.

Wooden wicks have become popular in recent years for the visual aesthetic they create and the soft crackling sound they create.

Wicks do not contain lead cores

Decades ago, the core of wicks was sometimes made of lead. The heavy metal was partly released to the indoor air and could be inhaled to some degree when such candles were burned. When the health hazards of lead and its compounds became more and more known over time, the European candle manufacturers and their associations voluntarily agreed to phase out lead wicks. That was in the 1970s and 1980s already [1]. These voluntary agreements did not apply to imported candles however, and so several individual European countries prohibited the use of lead in candle wicks. Finland restricted the use in indoor candles in 2001 for example, and Denmark has prohibited the use from 2001 in general. In 2018, the European Chemicals Agency, ECHA, added lead to the REACH Candidate List of substances of very high concern for authorisation [2].

Nowadays, metal is used in less than 2% of the wicks as higher stiffness can be achieved with special braiding techniques or by using other core materials, such as cotton or paper. And if metal cores are still used, they are typically made of unproblematic zinc or tin.

No worries about lead

European candle manufacturers have not used lead core wicks for decades. Consumers can enjoy candles without any concerns.

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The European Candle Manufacturers Association aisbl, ECMA, represents European candle manufacturers and their national associations and suppliers. As the European candle industry's collective voice, ECMA ensures the continuous exchange of information with authorities, non-governmental organizations, the media and other relevant stakeholders. Promoting the safe use and enjoyment of candles and increasing the knowledge and safety of candles are key priorities.

References:

- [1] European Commission (2004) *Advantages and drawbacks of restricting the marketing and use of lead in ammunition, fishing sinkers and candle wicks*. Final report. Contract number ETD/FIF 20030756, pages 123-131
- [2] European Chemicals Agency, Candidate List of substances of very high concern for authorization in accordance with Article 59(10) of the REACH Regulation, <https://echa.europa.eu/candidate-list-table/-/dislist/details/0b0236e182607ea6>