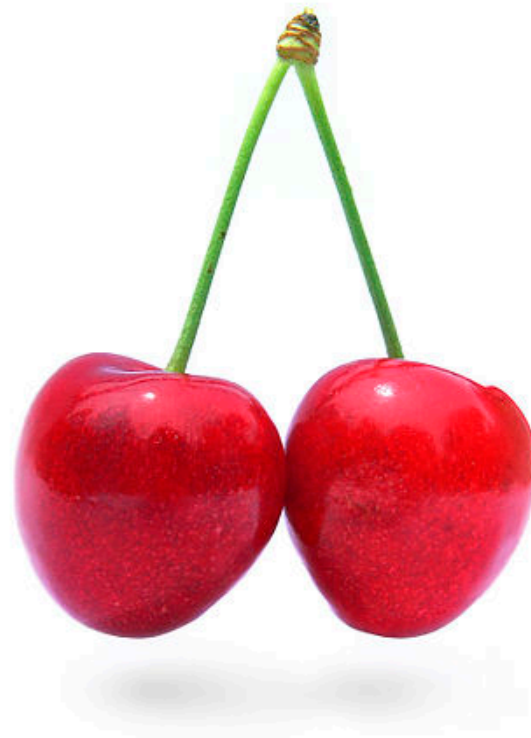


Why benzene forms in soft drinks

Read the full article at rsc.li/2LZMTgV

Small amounts ($4.6 \mu\text{g}/\text{dm}^3$) of toxic benzene (C_6H_6) were found in some cherry-flavoured soft drinks in 2013. New research shows the benzene may have come from a reaction of the benzaldehyde flavouring with light. Benzaldehyde is a common food flavouring used to give both almond and cherry flavours and odours. It occurs naturally in many fruit extracts.

Experiments with a variety of lamps found that the longer benzaldehyde was exposed to light, and the more intense the light, the greater the levels of benzene were formed. The researchers also found the reaction didn't occur in dark red cherry juice because the colour acts as a light filter. The reaction could therefore be prevented by storing benzaldehyde flavouring in amber-coloured containers.



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1. Explain why benzene (C_6H_6) is a hydrocarbon.
2. Convert $4.6 \mu\text{g}/\text{dm}^3$ into g/dm^3 . Give your answer in standard form.
3. Look up and draw the structures of benzene and benzaldehyde.