# COSMETIC CHEMISTRY – RED LIPSTICK

65% CASTOR OIL

15% BEESWAX

10% OTHER WAXES

5% LANOLIN

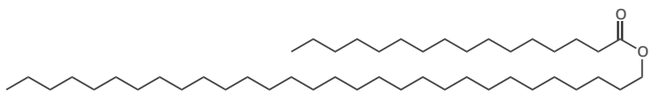
5% DYES, PIGMENTS & PERFUME

Note that these figures are for an average composition. Actual composition varies from brand to brand, and there is likely to be some deviation from these percentages.

## WAXES & OILS

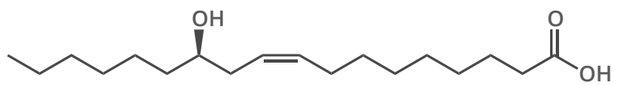
Waxes provide the structure of lipstick. A number of different natural waxes are used, including beeswax, Carnauba wax, and Candelila wax. Carnauba wax has the highest melting point of any wax, and is therefore important to prevent lipstick from melting too easily. Waxes also give emollient properties and glossiness.

**284** THE APPROXIMATE NUMBER OF CHEMICAL COMPOUNDS THAT MAKE UP BEESWAX.



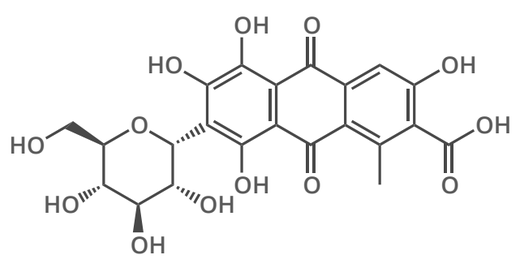
**TRIACONTYL PALMITATE**
One of the principal chemical components of beeswax

Oils give lipstick its gloss, and also provide lubrication for the application of the lipstick. Castor oil is the most common, though other synthetic oils are also used.

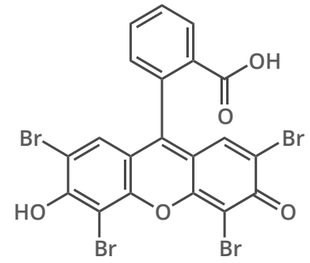


**RICINOLEIC ACID**
Major component of castor oil (90% of fatty acid content)

## PIGMENTS & DYES



**CARMINE RED**

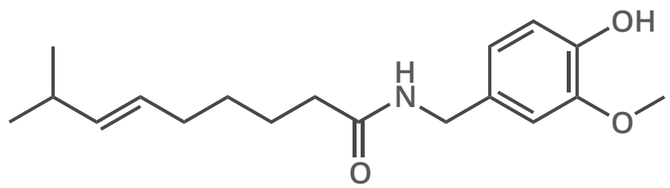


**EOSIN**

Lipstick colour originates from a range of different pigments and dyes. Carmine red is a pigment derived from scale insects. Eosin, also known as D&C Red No. 22, is a dye which reacts with the amino groups in the proteins of the skin to produce a deep red colour. Titanium dioxide can be used to dilute colours and give pink shades.

## OTHER COMPOUNDS

A number of other compounds are also added to lipstick; this can include different fragrances, to mask the smell of the other chemicals present. Also, capsaicin, the compound found in chilli peppers, is sometimes included, as its skin irritant effect can induce plumping of the lips in small quantities.



**CAPSAICIN**
Major capsaicinoid compound found in chilli peppers

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