The Chemistry of Cosmetics: Lipstick

COMPOUND INTEREST

65% Castor oil

15% Beeswax

10% Other waxes

5% Lanolin

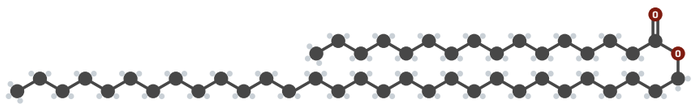
5% Dyes, pigments, perfume

Note that these figures are for an average lipstick composition. Actual composition varies from brand to brand.

Waxes and 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 prevents lipstick from melting too easily. Waxes also give the lipstick moisturising properties and glossiness.

KEY: Carbon · Oxygen · Nitrogen · Bromine · Hydrogen



Triacontyl palmitate

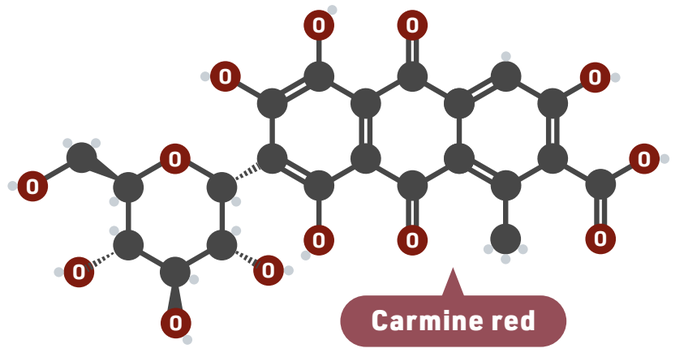
One of the principal chemical components of beeswax

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

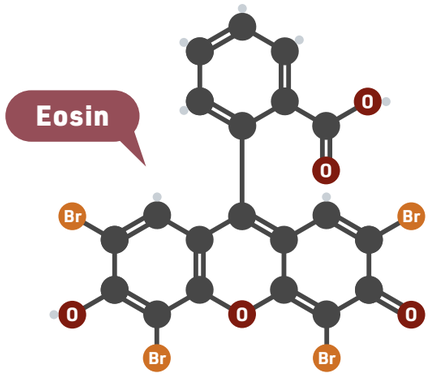
Ricinoleic acid

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

Pigments and dyes



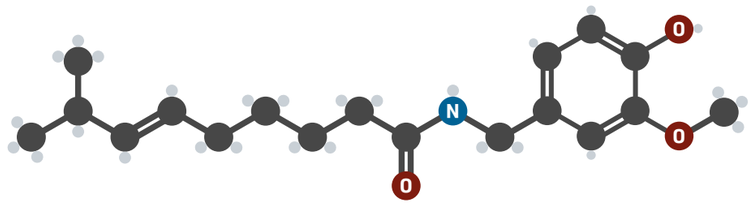
Carmine red



A range of different pigments and dyes give lipsticks colour. Some lipsticks use carmine red, a pigment derived from scale insects, though increasingly alternative dyes are used. Another dye, eosin, reacts with the amino groups in the proteins of the skin to produce a deep red colour. Inorganic pigments include iron oxides and also titanium dioxide, which is used to dilute colours and give pink shades.

Other compounds

Other compounds added to lipstick include fragrances to mask the smell of the other chemicals present. Capsaicin, the spicy compound found in chilli peppers, is sometimes included, as its skin irritant effect causes plumping of the lips in small quantities.



Capsaicin

Major capsaicinoid compound found in chilli peppers