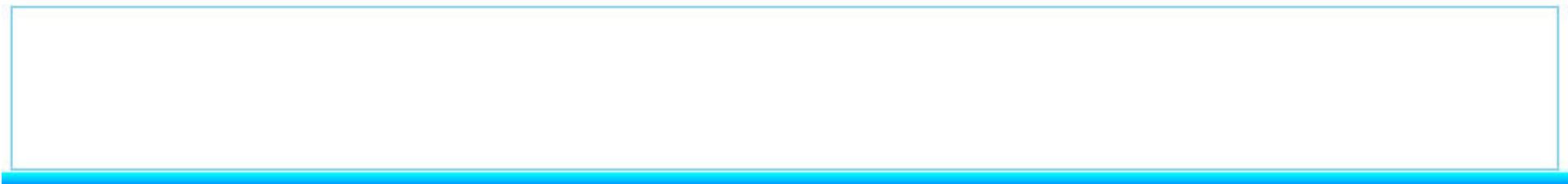


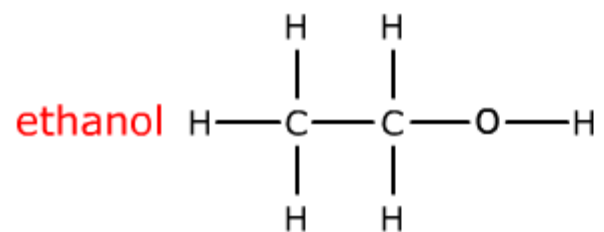
Esters



Esters

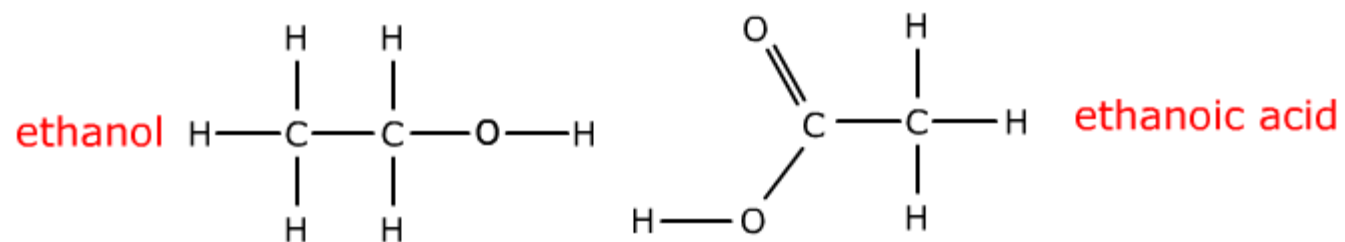


Esters



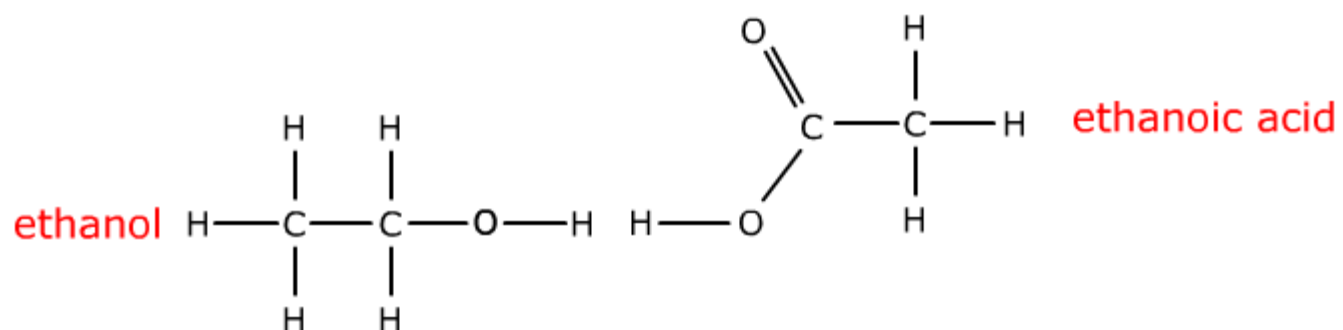
Esters are formed from the reaction between an alcohol and a carboxylic acid.

Esters



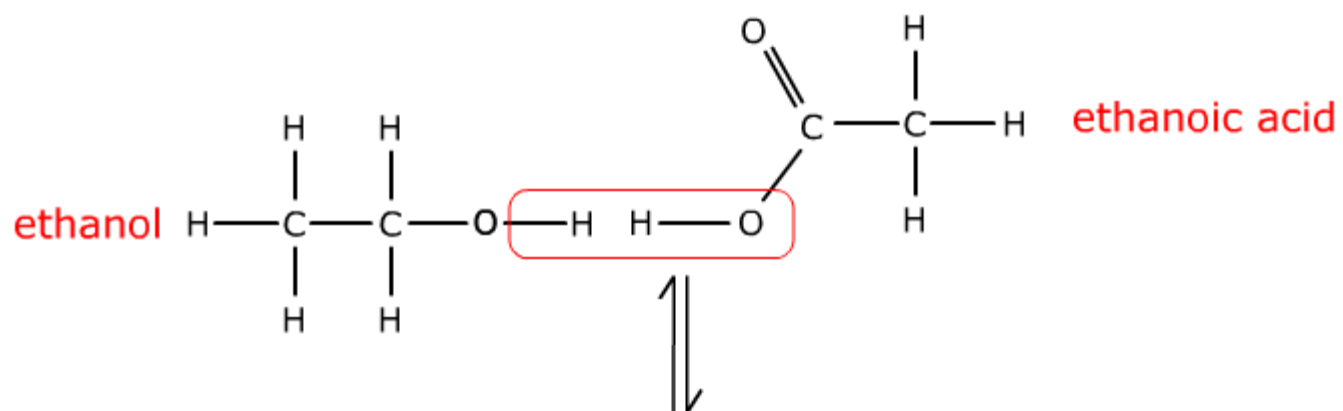
The ester called ethyl ethanoate is formed from ethanol and ethanoic acid.

Esters



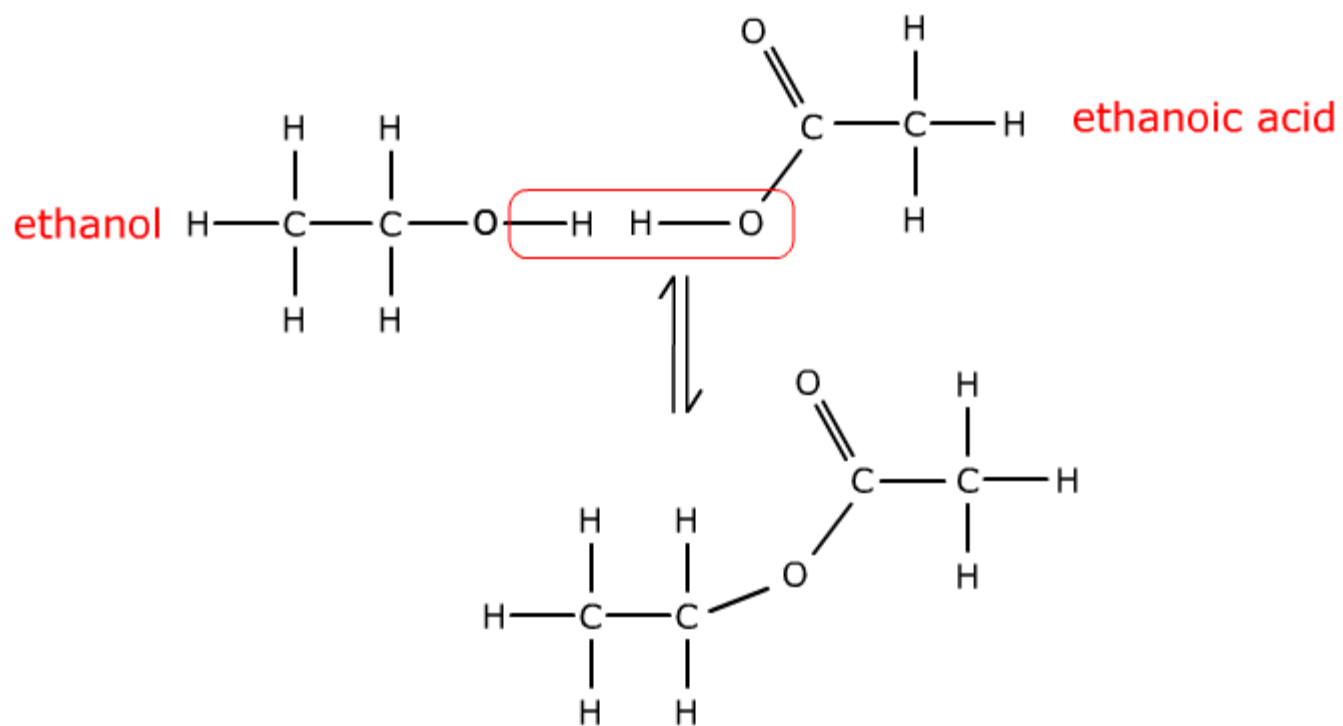
Esters form in the presence of hydrochloric acid or sulphuric acid, which act as a catalyst.

Esters



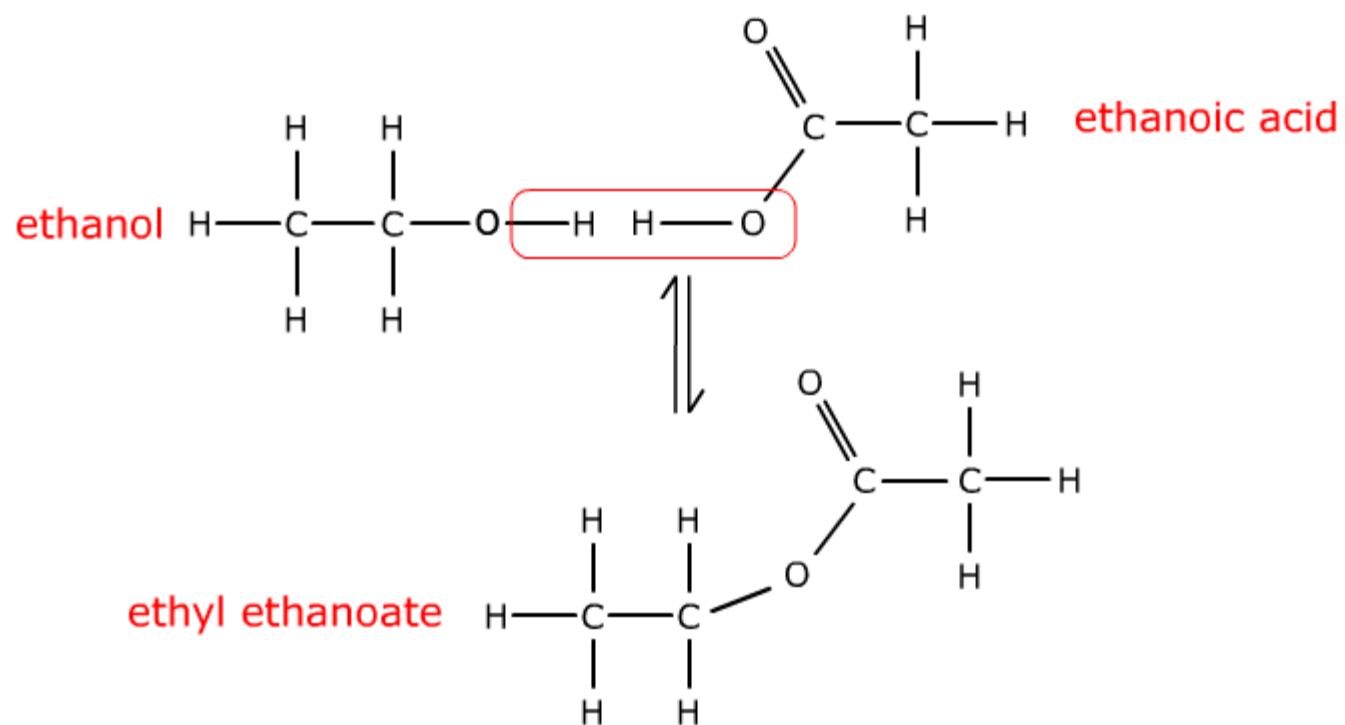
The O-H bond in the alcohol and the C-O bond in the carboxylic acid will break.

Esters



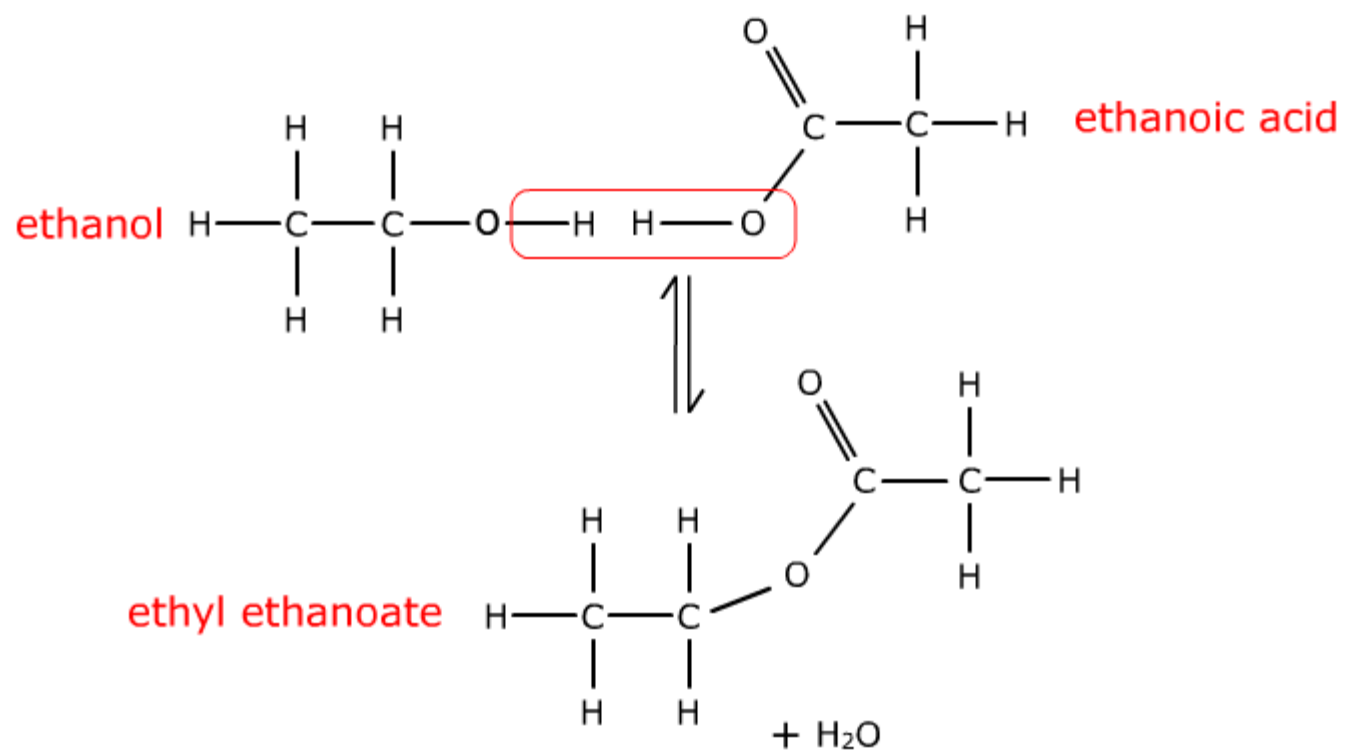
A new bond forms between the oxygen atom from the alcohol and the carbon atom in the carboxylic acid group.

Esters



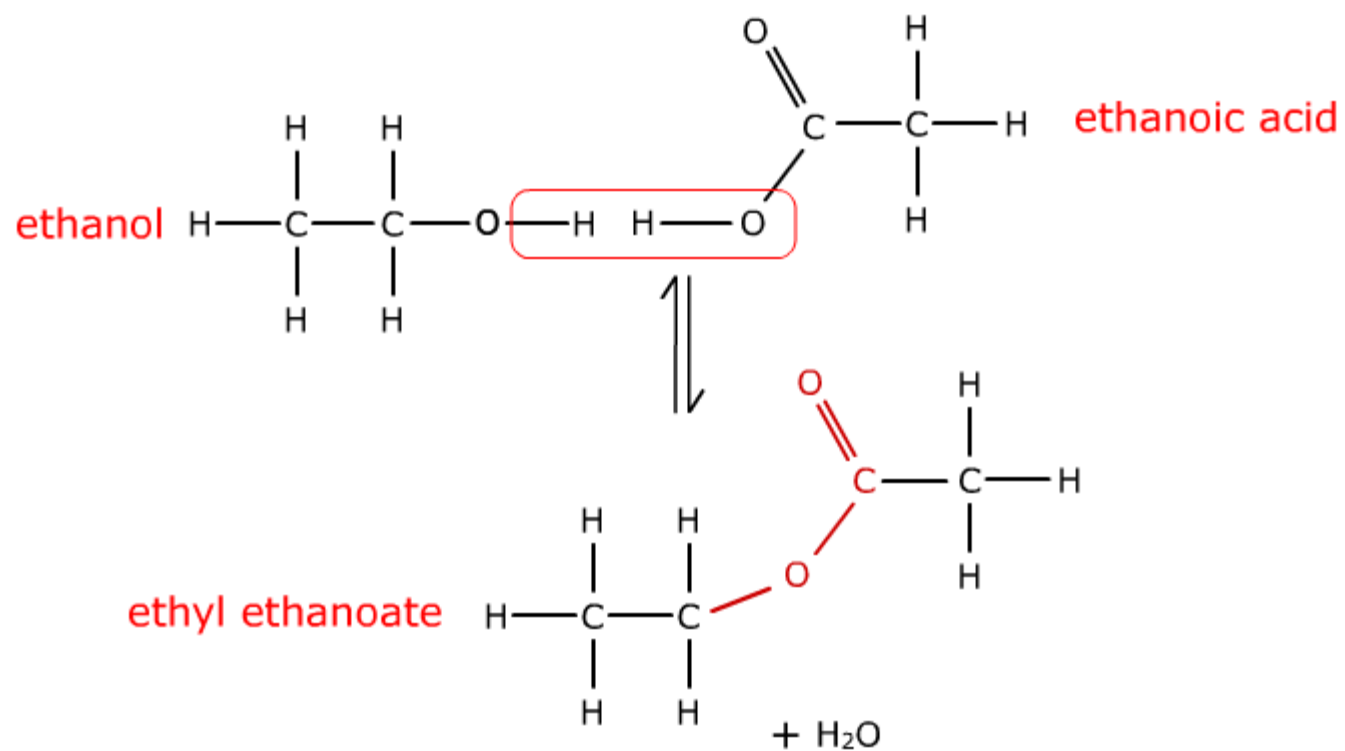
The ester formed is ethyl ethanoate: **ethyl** from ethanol and **ethanoate** from ethanoic acid.

Esters



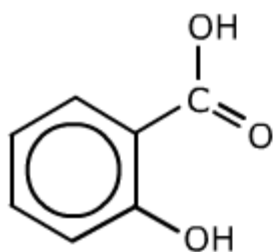
The reaction is called **esterification**.

Esters



This is the ester group.

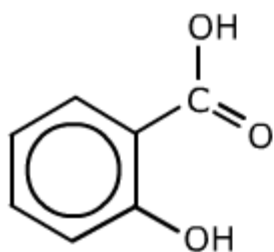
Esters



2-hydroxybenzoic acid
(salicylic acid)

Salicylic acid is the starting material for well-known analgesics (painkillers).

Esters

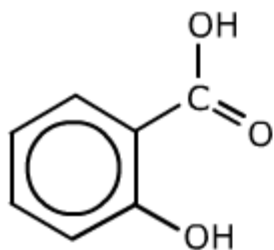


2-hydroxybenzoic acid
(salicylic acid)

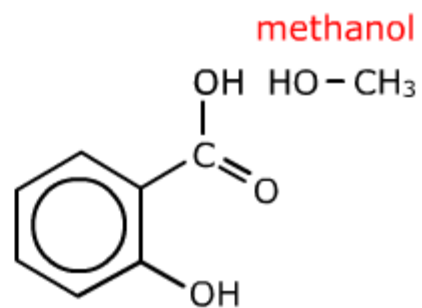
methanol
 $\text{HO}-\text{CH}_3$

Salicylic acid is the starting material for well-known analgesics (painkillers).

Esters

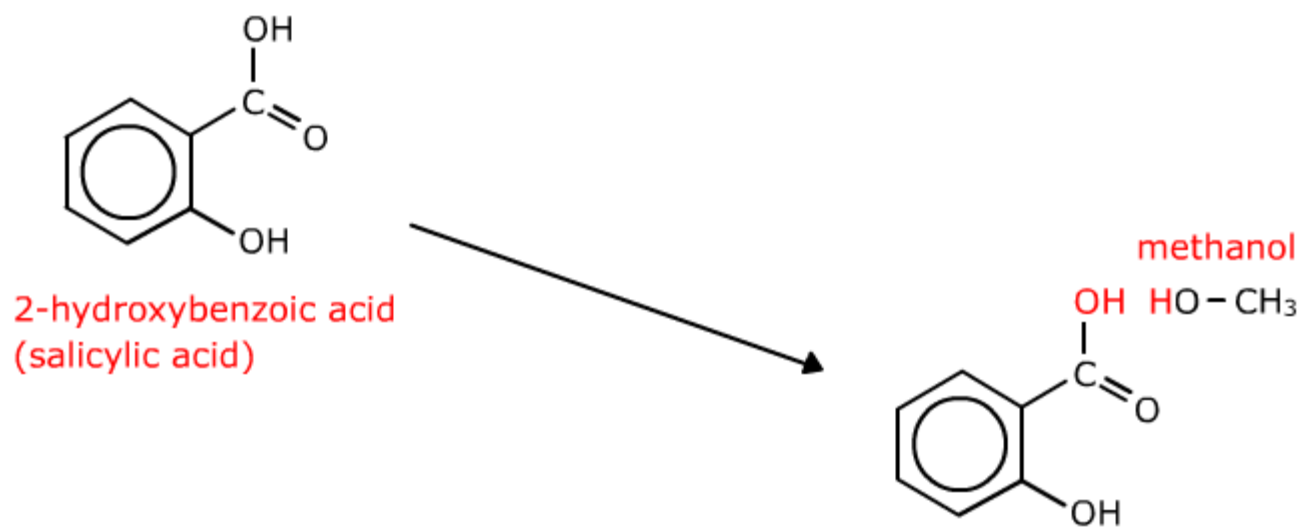


2-hydroxybenzoic acid
(salicylic acid)



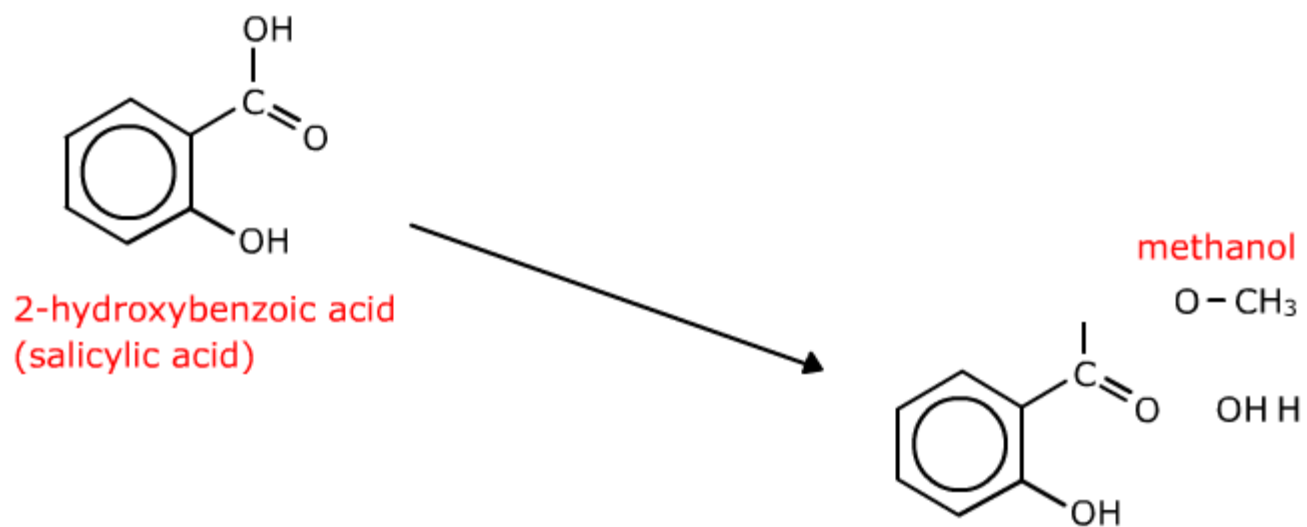
Salicylic acid can be esterified with methanol.

Esters



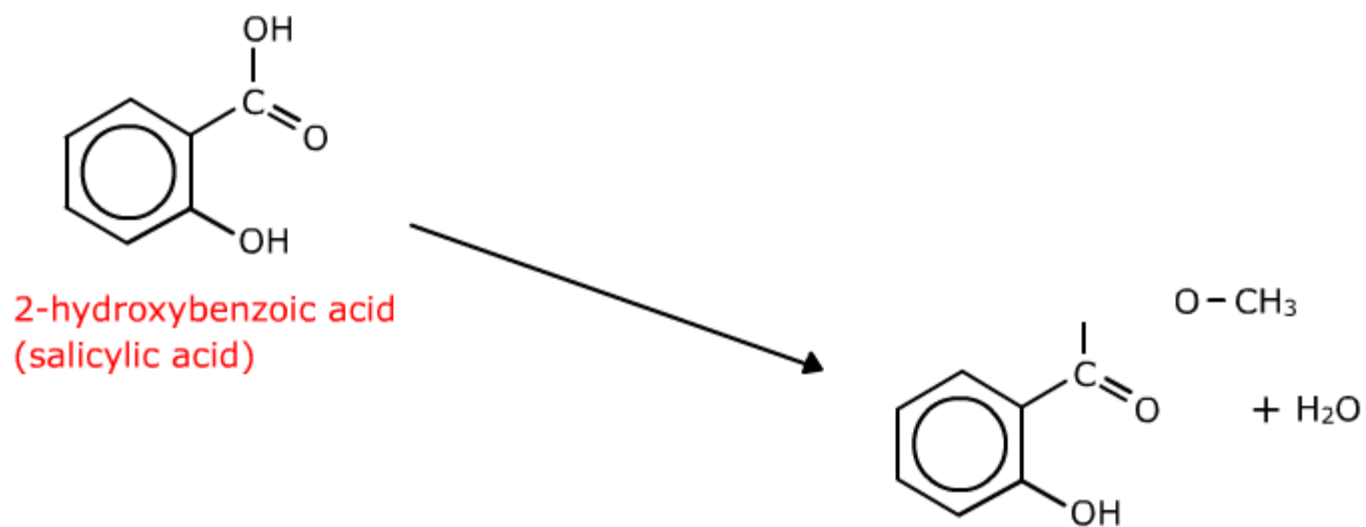
Salicylic acid can be esterified with methanol.

Esters



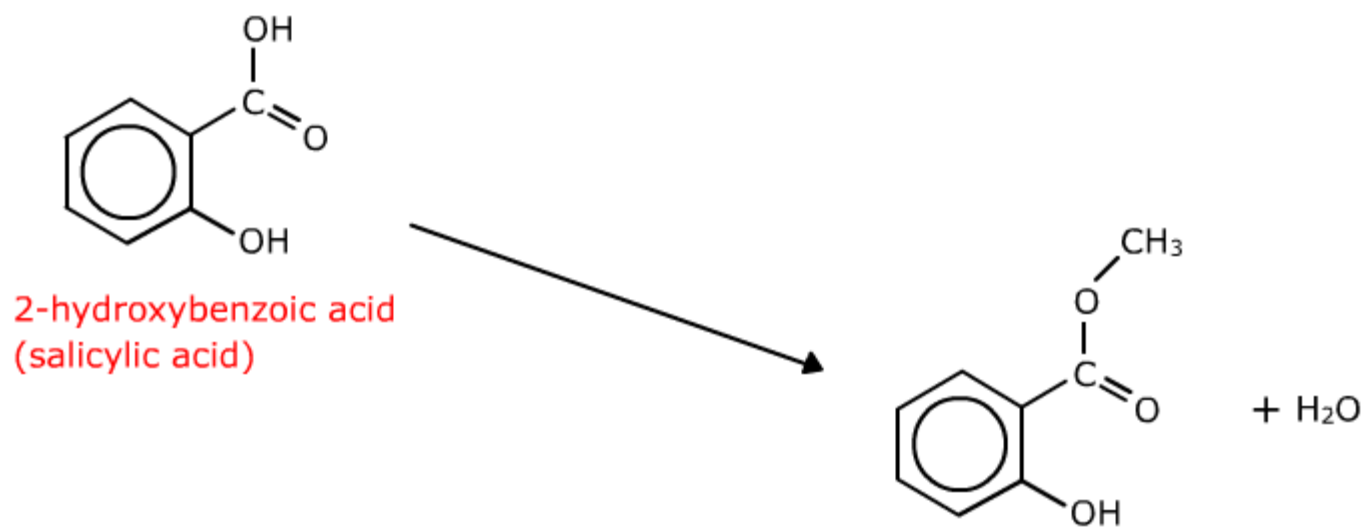
Salicylic acid can be esterified with methanol.

Esters



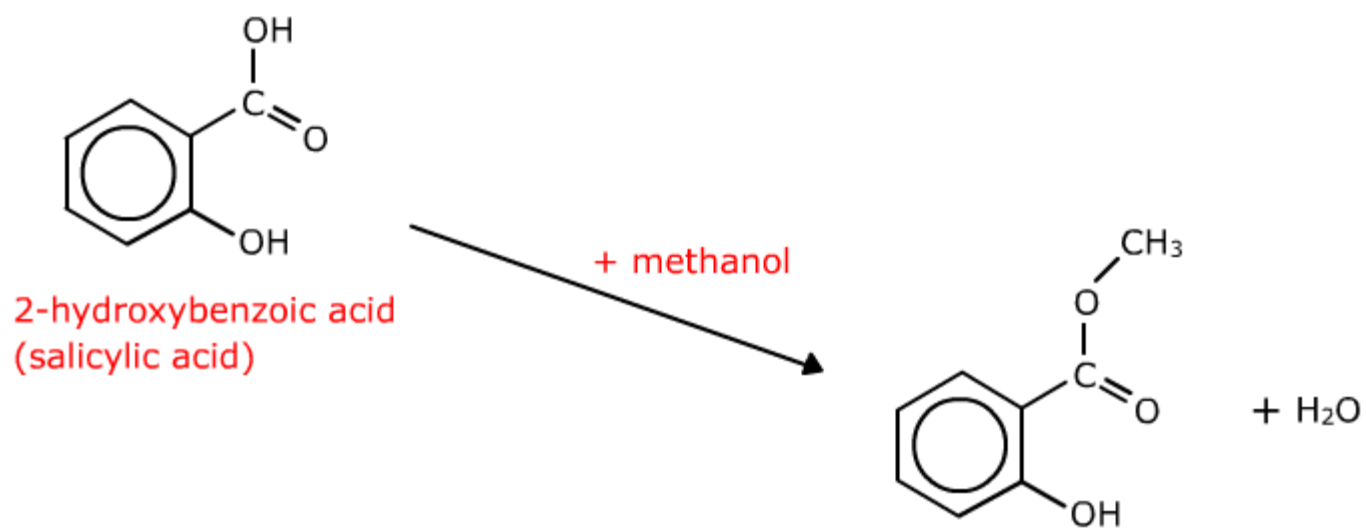
Salicylic acid can be esterified with methanol.

Esters



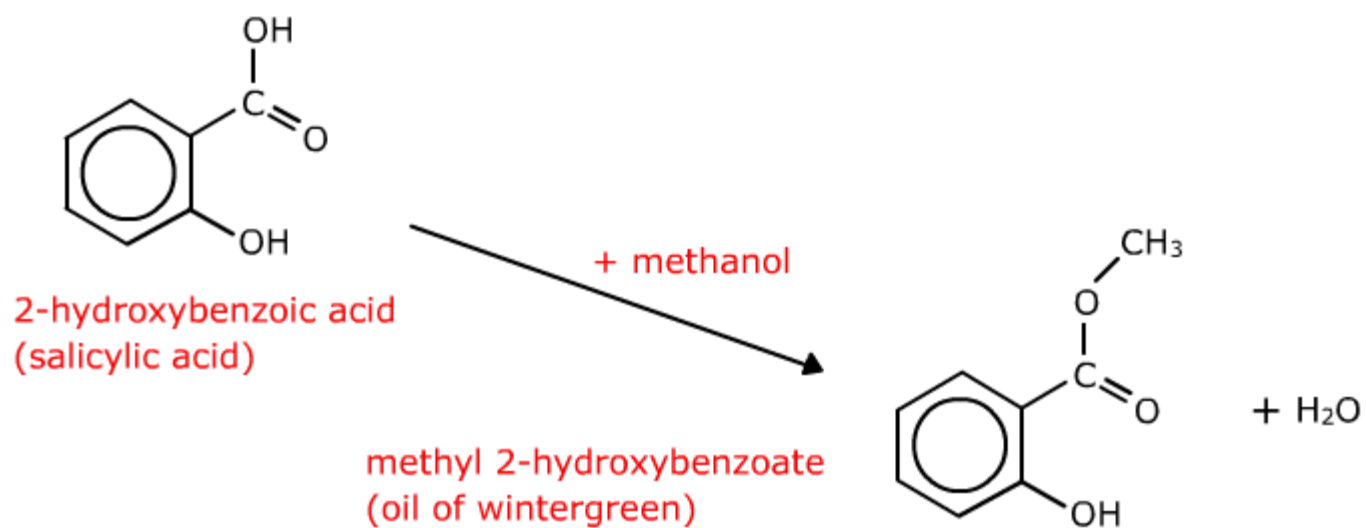
Salicylic acid can be esterified with methanol.

Esters



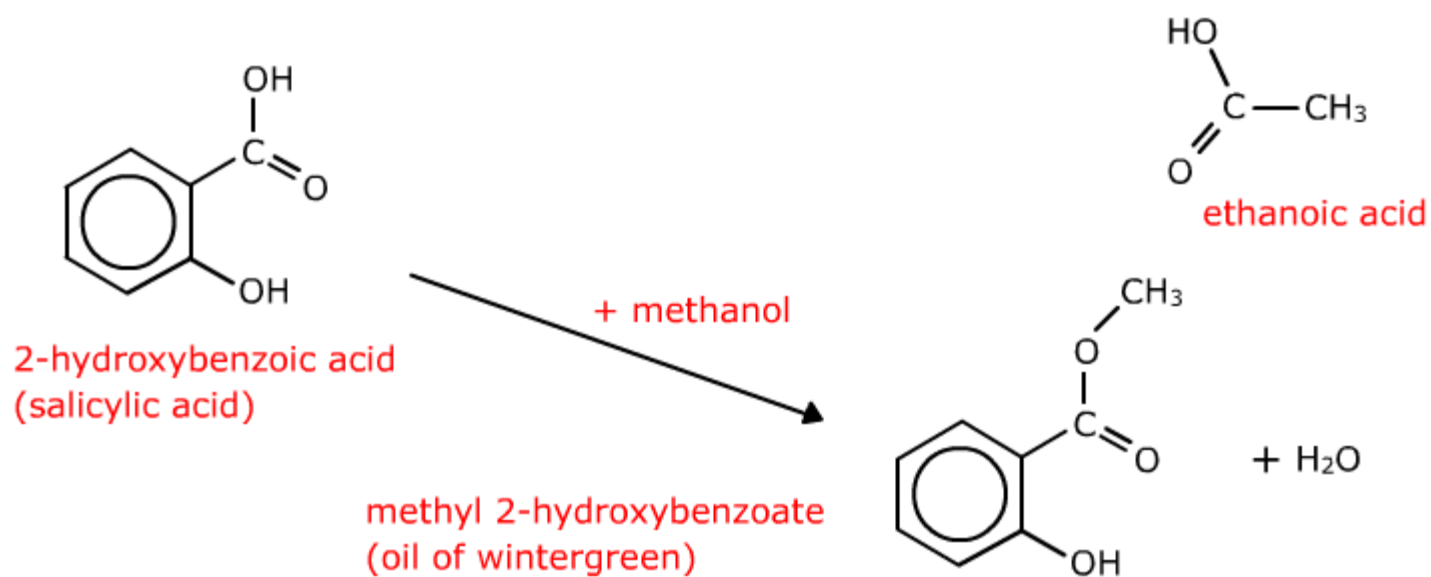
Salicylic acid can be esterified with methanol.

Esters



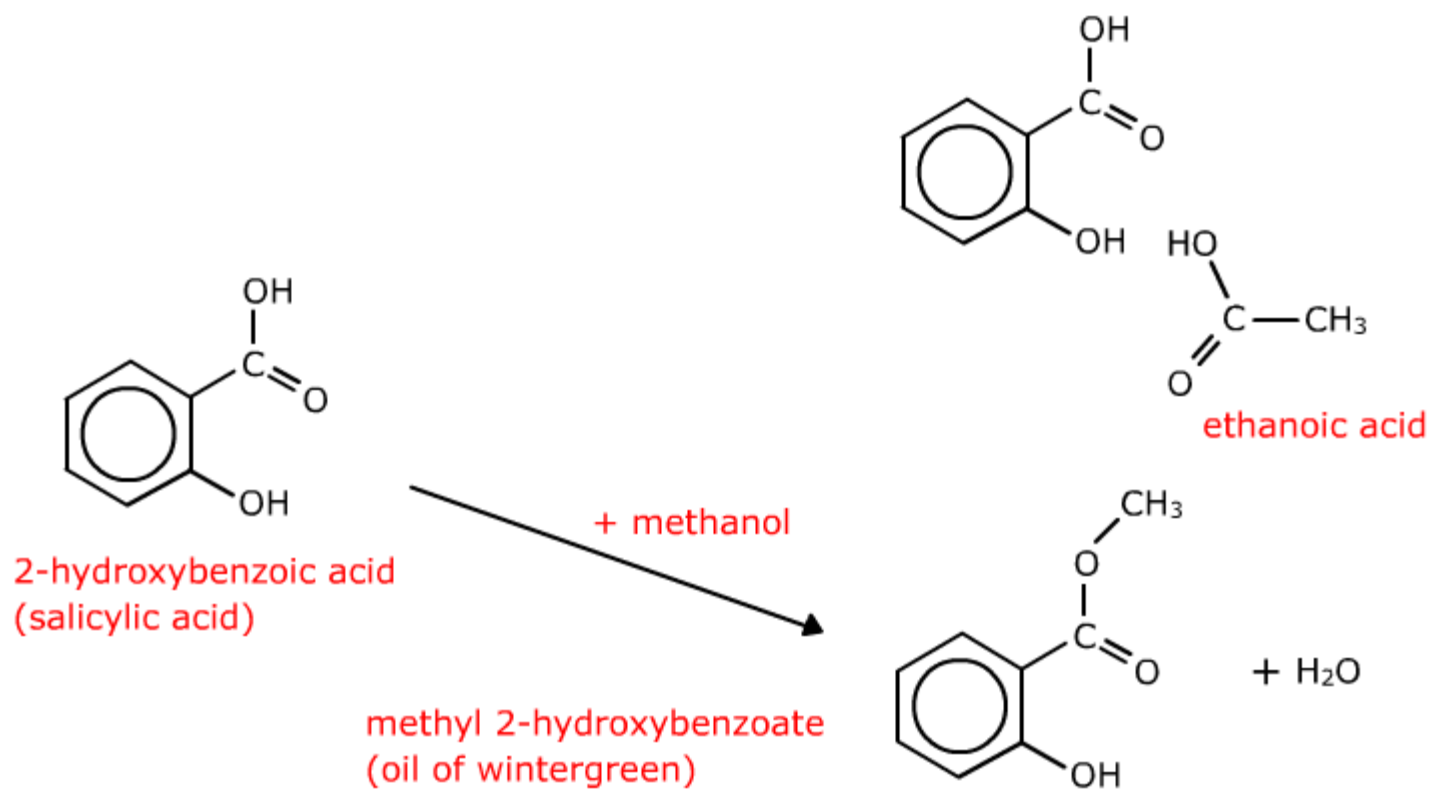
A fat-soluble analgesic called oil of wintergreen is formed.

Esters



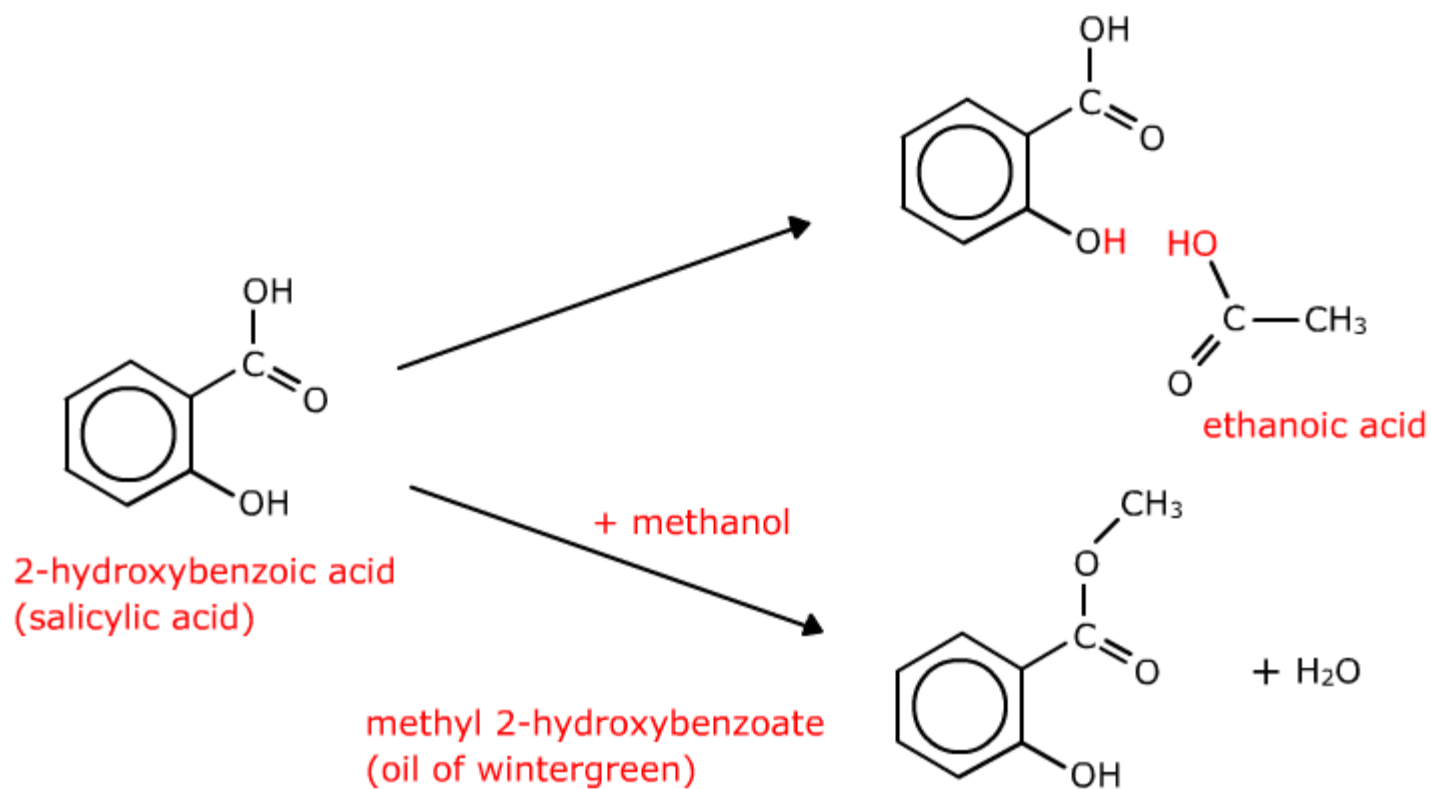
Salicylic acid can also be esterified with ethanoic acid.

Esters



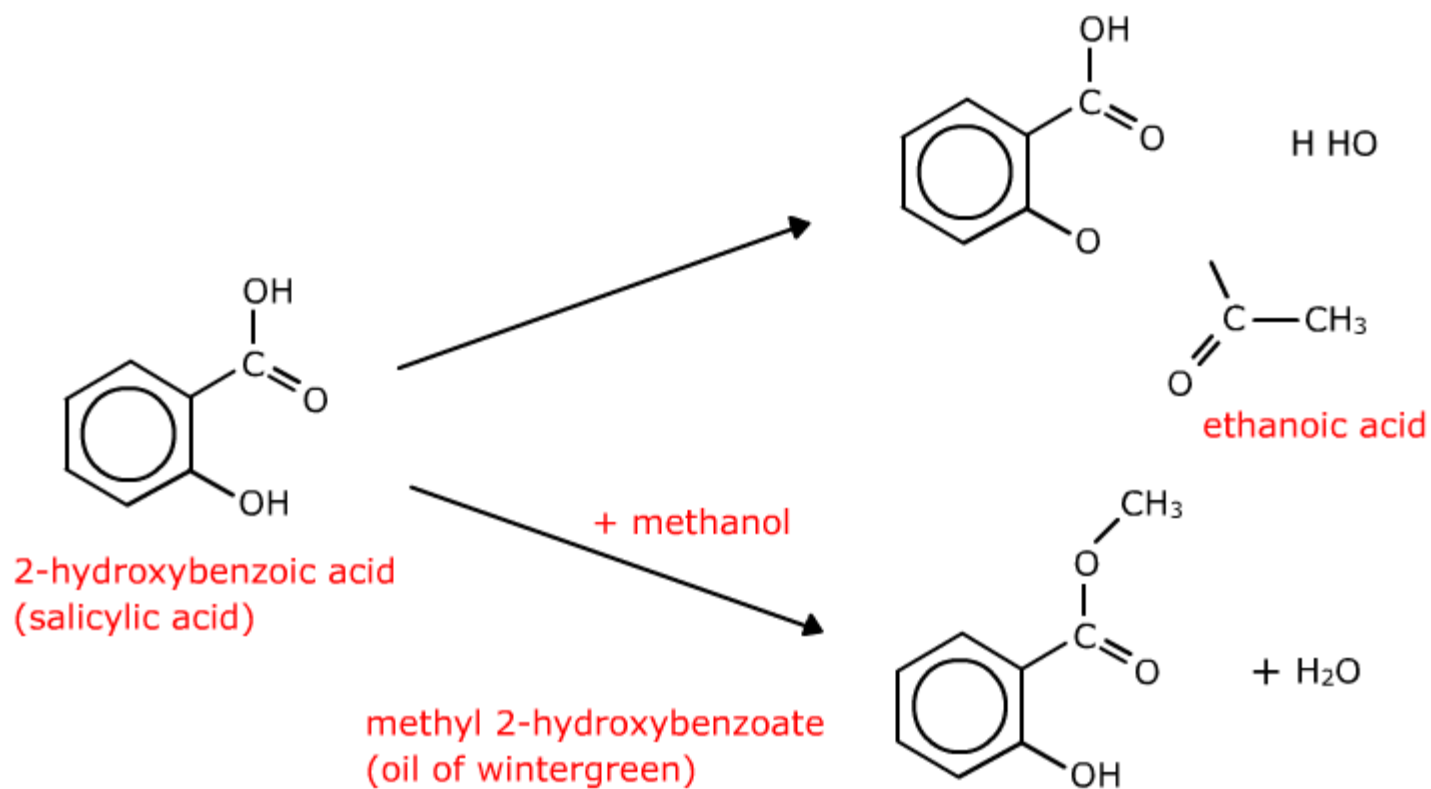
Salicylic acid can also be esterified with ethanoic acid.

Esters



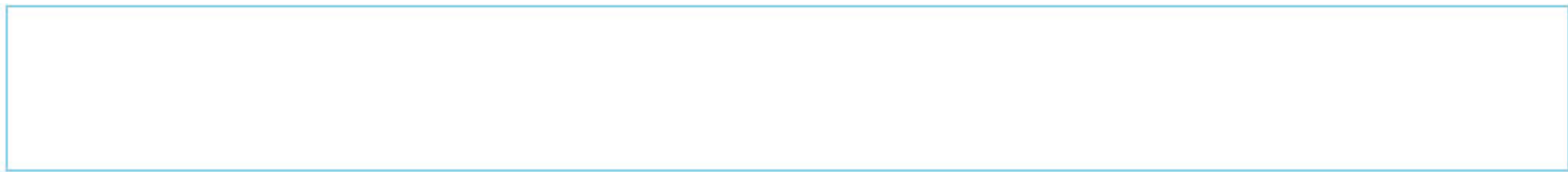
Salicylic acid can also be esterified with ethanoic acid.

Esters



Salicylic acid can also be esterified with ethanoic acid.

Esters



ERROR: stackunderflow
OFFENDING COMMAND: ~

STACK: