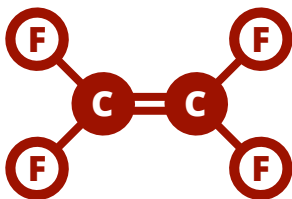


# TODAY IN CHEMISTRY HISTORY

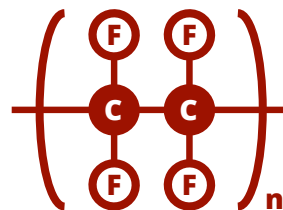
4<sup>TH</sup> FEBRUARY – PATENT ISSUED FOR TEFLON (1941)



TEFLON PAN



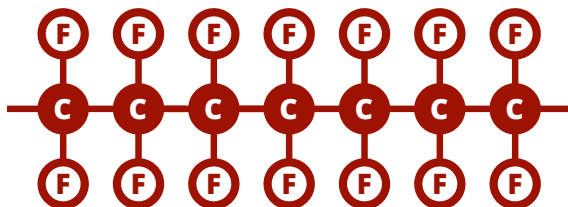
TETRAFLUOROETHENE



POLYTETRAFLUOROETHENE

Teflon is the brand name for polytetrafluoroethene (PTFE). It's a white, waxy substance, and was actually created by accident by Roy Plunkett in 1938. During research on new refrigerants, the tetrafluoroethene Plunkett was using was accidentally polymerised.

## HOW DOES IT WORK?



Teflon's non-stick properties are in part due to the strength of its carbon-fluorine bonds, which are chemically inert. Additionally, due to the fluorine atoms, the intermolecular forces between PTFE and other molecules are very weak.

## IS TEFLON SAFE?

327°C

MELTING POINT

260°C

RECOMMENDED MAX  
SAFE USE TEMPERATURE

During appropriate use, Teflon does not reach the temperatures required for it to degrade. However, if the coating is overheated the polymer can begin breaking down, and the fumes produced can cause flu-like symptoms. At present, the long term effects of human exposure to these fumes are still largely unknown.



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