

# Oil refining





## WHAT IS THE CRUDE OIL?

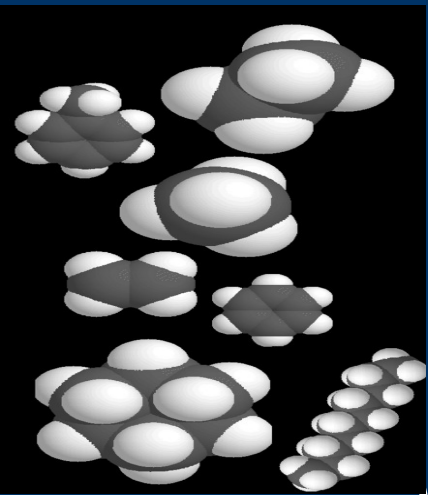
Crude oil is 'unprocessed' oil coming out of the ground. It is fossil fuel that is natural to decomposing plants.

## WHAT IS THE PROBLEM OF CRUDE OIL?

The problem of crude oil is that it contains of different types of hydrocarbons coughs mixed with each other. It should be separated into different types to get something useful.

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## WHAT ARE THE HYDROCARBONS?

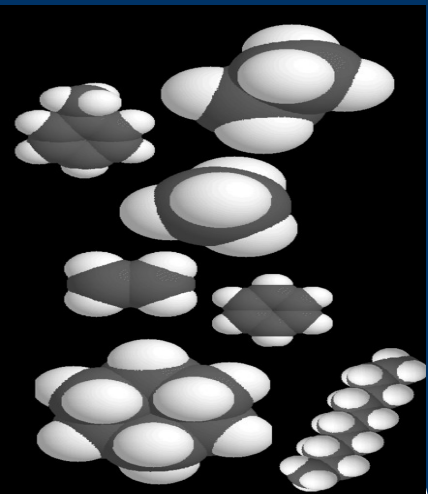
Hydrocarbons are molecules that contain hydrogen and carbon. They come in varying lengths and structures, from straight chains to branched chains.

## BECAUSE THEY ARE IMPORTANT CHEMICALS?

The importance of hydrocarbons lies in the fact that they are the basis of materials: plastics, lubricants, paints and electricity generation.

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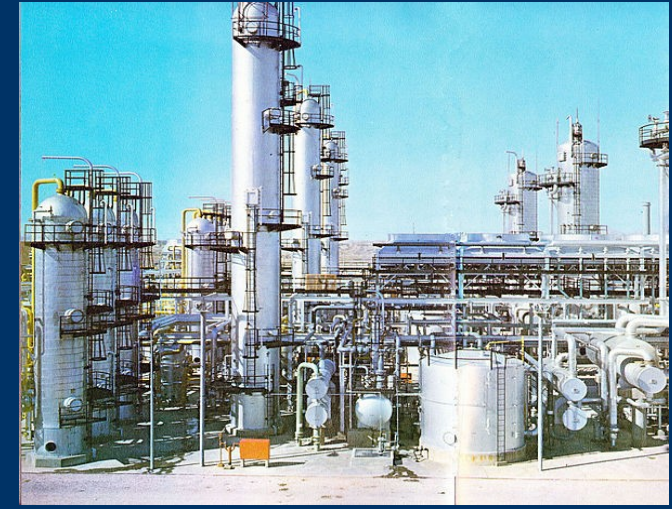
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# WHAT IS OIL REFINING?

It is a process that includes the chemical fraction and transformation of petroleum to produce derivatives.

In the petroleum refineries the different fabrications are combined, mixed with the desired products.

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# WHERE IS THE PETROLEUM IN SPAIN?

Although Spain is not an oil rich area, in regions near Burgos, Tarragona, Galicia or the Canary Islands oil is occasionally extracted.

# FROM WHERE DOES THE PETROLEUM COME IN SPAIN?

In 2015, the main supplier of crude oil to Spain was Nigeria, with 16.7%, followed by Mexico (13.7%) and Saudi Arabia (10.5%). So the world's largest exporter of crude oil is only our third best supplier. Mexico is the tenth largest producer of crude oil while Nigeria is the thirteenth.







# TO WHERE IS EXPORTED THE GASOLINE AND THE GASOIL PRODUCED IN SPAIN?

The United States was the main destination for gasoline exports from our country (1.42 million tons) in 2012. The Netherlands was 0.39 million, Portugal 0.16 million and Algeria 0.15 million tons.





# In Greece

- *In Greece there are oil refineries which, as in Spain, are located near the coastline of the country so as the oil transport through the sea to be facilitated and the cost of exports to be decreased. There are two refineries in the capital of Greece , Athens. In Athens, the one of the two oil refineries is located near the biggest port of the country. There are also two other ones in Thessaloniki and Corinthos which are also coastal areas.*
  - *In Greece, the oil refining capacity the last 4 years is estimated to be 488.5 kilobarrels of oil per day. It is not a big amount in contrast to other big countries like Italy and Japan that produce over 1.000 kb/d.*
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# In Italy

- *In Sicily there are three oil refineries in Gela, Priolo, Augusta. In the rest of Italy there are several oil refineries. They are mainly in the coastal areas.*
- *As for import/export gas, Italy produces about 700 millions of m<sup>3</sup> while it imports more than 61966 billion m<sup>3</sup>, 45% from Russia, 20% from Algeria and 9% from Libya.*
  - *As for import/export oil, Italy imports 49267 thousands of tons*
    - **24,3%** comes from **Africa. (6,7% Libya,,3,4% Angola, 2,8% Nigeria)**
    - **41,8%** of oil comes from ex-USSR countries, in particular **17% from Russia.**
    - **23,6%** is imported from *Middle East, (11% Saudi Arabia and '11,6% from Iran)*

*As for Italian production of oil and gas, Italy produces 5,8 million pf tons of oil and 6,9 billions of m<sup>3</sup> of gas, about 10 % of internal consumes.*

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