

PRODUCTION AND DELIVERIES OF OIL AND PETROLEUM PRODUCTS

METHODOLOGICAL NOTES

Production

Production of finished products at a refinery or blending plant. Excludes refinery losses, but includes refinery fuel.

Imports/Exports

Unless specified differently, 'imports' refer to ultimate origin (the country in which the energy product was produced) for use in the country and 'exports' to the ultimate country of consumption of the produced energy product.

Amounts are considered as imported or exported when they have crossed the political boundaries of the country, whether customs clearance has taken place or not.

International marine bunkers

Quantities of fuels delivered to ships of all flags that are engaged in international navigation. The international navigation may take place at sea, on inland lakes and waterways, and in coastal waters. Excluded is:

- Consumption by ships engaged in domestic navigation. The domestic/international split should be determined on the basis of port of departure and port of arrival, and not by the flag or nationality of the ship,
- Consumption by fishing vessels, consumption by military forces.

Stock changes

The difference between the closing stock level and opening stock level for stocks held on national territory.

A stock build is shown as a positive number and a stock draw is shown as a negative number.

Deliveries

Refinery intake of crude oil and refinery feedstocks are calculated as: indigenous production + from other sources + backflows from industry + products transferred + imports – exports – direct use – stock changes.

Gross inland deliveries of petroleum products are defined as: primary product receipts + gross refinery output + recycled products – refinery fuel + imports – exports – international marine bunkers + interproduct transfers – products transferred – stock changes.

Unit of measure

Quantities of oil and petroleum products are shown in thousand tones.

Description of the observed petroleum products:

Crude oil

Crude oil is a mineral oil of natural origin comprising a mixture of hydrocarbons and associated impurities, such as sulphur. It exists in the liquid phase under normal surface temperature and pressure and its physical characteristics (density, viscosity, etc.) are highly variable. This category includes field or lease condensate recovered from associated and non-associated gas where it is commingled with the commercial crude oil stream.

Refinery feedstocks

A refinery feedstock is a processed oil destined for further processing (e.g. straight run fuel oil or vacuum gas oil) excluding blending. With further processing, it will be transformed into one or more components and/or finished products. This definition also covers returns from the petrochemical industry to the refining industry (e.g. pyrolysis gasoline, C4 fractions, gasoil and fuel oil fractions).

Refinery gas

Refinery gas includes a mixture of non-condensable gases mainly consisting of hydrogen, methane, ethane and olefins obtained during distillation of crude oil or treatment of oil products (e.g. cracking) in refineries. This also includes gases which are returned from the petrochemical industry.

Liquefied petroleum gases

LPG are light paraffinic hydrocarbons derived from the refinery processes, crude oil stabilization and natural gas processing plants. They consist mainly of propane (C₃H₈) and butane (C₄H₁₀) or a combination of the two. They could also include propylene, butylene, isopropylene and isobutylene. LPG are normally liquefied under pressure for transportation and storage.

Naphtha

Naphtha is a feedstock destined for either the petrochemical industry (e.g. ethylene manufacture or aromatics production) or for gasoline production by reforming or isomerisation within the refinery.

Naphtha comprises material in the 30°C and 210°C distillation range or part of this range.

Motor gasoline

Motor gasoline consists of a mixture of light hydrocarbons distilling between 35°C and 215°C. It is used as a fuel for land based spark ignition engines. Motor gasoline may include additives, oxygenates and octane enhancers, including lead compounds such as TEL and TML. Includes motor gasoline blending components (excluding additives/oxygenates), e.g. alkylates, isomerate, reformate, cracked gasoline destined for use as finished motor gasoline.

Kerosene jet fuel

Distillate used for aviation turbine power units. It has the same distillation characteristics between 150°C and 300°C (generally not above 250°C) and flash point as kerosene. In addition, it has particular specifications (such as freezing point) which are established by the International Air Transport Association (IATA). Includes kerosene blending components.

Gas/diesel oil

Gas/diesel oil is primarily a medium distillate distilling between 180°C and 380°C. Includes blending components. Several grades are available depending on uses: On-road diesel oil for diesel compression ignition (cars, trucks, etc.), usually of low sulphur content and Light heating oil for industrial and commercial uses, marine diesel and diesel used in rail traffic, other gas oil, including heavy gas oils which distil between 380°C and 540°C and which are used as petrochemical feedstocks.

Fuel oil

All residual (heavy) fuel oils (including those obtained by blending). Kinematic viscosity is above 10 cSt at 80°C. The flash point is always above 50°C and density is always more than 0,90 kg/l.

- Heavy fuel oil with sulphur content lower than 1 %.
- Heavy fuel oil with sulphur content of 1 % or higher.

Petroleum coke

Black solid by-product, obtained mainly by cracking and carbonising petroleum derived feedstock, vacuum bottoms, tar and pitches in processes such as delayed coking or fluid coking. It consists mainly of carbon (90 to 95 %) and has low ash content. It is used as a feedstock in coke ovens for the steel industry, for heating purposes, for electrode manufacture and for production of chemicals. The two most important qualities are 'green coke' and 'calcinated coke'.

Includes 'catalyst coke' deposited on the catalyst during refining processes; this coke is not recoverable and is usually burned as refinery fuel.

Other products

All products not specifically mentioned above, for example: tar and sulphur. Includes aromatics (e.g. BTX or benzene, toluene and xylene) and olefins (e.g. propylene) produced within refineries.