

or unrefined petroleum products and liquid products of natural gas, the majority of which distills below 240°C (464°F).

**Naphthenes** are hydrocarbons (cycloalkanes, cycloparaffins) with the general formula  $C_nH_{2n}$ , in which the carbon atoms are arranged to form a ring.

**Natural gas** comprises gases, occurring in underground deposits, whether liquefied or gaseous, consisting mainly of methane. It includes both “nonassociated” gas originating from fields producing hydrocarbons only in gaseous form, and “associated” gas produced in association with crude oil as well as methane recovered from coal mines (colliery gas).

**Natural gas liquids (NGL)** are the hydrocarbon liquids that condense during the processing of hydrocarbon gases that are produced from oil or gas reservoir; see also **natural gasoline**.

**Natural gasoline** is a mixture of liquid hydrocarbons extracted from natural gas suitable for blending with refinery gasoline.

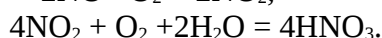
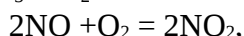
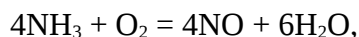
**Natural hydrocarbon gases** is a mixture of saturated hydrocarbon type  $C_nH_{2n+2}$ . The main component - methane,  $CH_4$ .

**Natural gasoline plant** is a plant for the extraction of fluid hydrocarbon, such as gasoline and liquefied petroleum gas, from natural gas.

**Neutralization** – is a decrease of neutralization of exhaust gases with the help of devices installed in the engine’s exhaust system.

**Negative catalyst** - see **inhibitor**.

**Nitric acid**  $HNO_3$  is one of the main products of large-tonnage chemistry; it is produced in the form of 60-65% aqueous solution. It refers to strong acids. It is a strong oxidizing agent, interacts with all metals except gold and platinum metals; some metals do not interact with  $HNO_3$  due to their passivation. Nitric acid is obtained from ammonia in the following reactions:



Nitric acid is used for the production of fertilizers, explosives and for other purposes.

**The noosphere** is the new geological envelope of Earth created by human society on a scientific basis (according to ideas and conclusions of V.I. Vernadsky).

**Normal hydrocarbons** are hydrocarbons of unbranched, linear structure of the chain.

**The  $NO_x$  storage and reduction system (NSR)** is a practical method for removing  $NO_x$  in excess oxygen conditions.

## O

**Octane number** is a measure of the detonation resistance of fuel, that is, the ability of the fuel to withstand self-ignition when compressed in the combustion chamber of a gasoline engine. A number indicating the relative antiknock characteristics of gasoline. The name comes from the fact that in the conventional scale of detonation resistance the number 100 is assigned to a normal octane.

**Oil (petroleum)** is an oily liquid, usually brown to almost black, less often brownish-red to light orange, with a specific odor. It is a mixture of hydrocarbons of methane, naphthenic and aromatic series with an admixture of (usually minor) sulfur, nitrogen and oxygen compounds. The specific gravity is seldom below 0.7 and above 1, fluctuating usually in the range 0.82-0.89. The low specific gravity of oils (light oils) can be due to both their chemical character - the predominant content of methane hydrocarbons and the fractional composition - high content of gasoline. Heavy oils have a high specific gravity due to the high content of asphalt-resinous substances, the predominance of cyclic structures in the structure of hydrocarbons and the low content of easily boiling fractions (the initial boiling point sometimes exceeds 200°C). The sulfur content of the oils is usually lower than 1%, but sometimes reaches 5 - 5.5%. The amount of paraffins varies from trace amounts to 10% or more. Oil with the high content of paraffin differ