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**Absolute humidity of the gas** is the amount of water vapor located in the unit volume or mass of the gas ( $\text{g}/\text{m}^3$  or  $\text{g}/\text{kg}$ ).

**Accident** is a dangerous technogenic accident creating at the site, territory or waters a threat to life and health of people and leading to the destruction of buildings, equipment and vehicles, disruption of production or transport process, as well as damage to the environment. Events that occur unintentionally or are unexpected, unwanted, unforeseen, and causing damage, injury, etc. Accidents can result in pollutant discharges and physical effects on the environment (e.g., fire and explosions), which are neither expected nor allowed during the course of normal industrial operations. The basic differences between accidents and routine operations, in terms of their potential pressures on the environment and human populations, relate to the following general parameters: the toxicity of discharges, the volume and rate of the release, and flammability and explosiveness. Good planning, management and control of the routine activities is necessary to prevent accidents.

**Accidental pollution** is an unexpected occurrence, losses at a plant or on a transportation route, resulting in a release of a potentially polluting material.

**ACEA (European Automobile Manufacturers Association)** is an organization that develops and monitors the use of quality standards for lubricants for automotive engines in Europe.

**Acid-base catalysis** is a catalytic reaction, where acids or bases are involved as catalysts. In general, this term can refer to both Brønsted and Lewis acids and bases. However, more specific terms for electrophilic and nucleophilic catalysis are also used for Lewis acids and bases. In the case of Brønsted acids and bases, the specific and general acid-base catalyses are distinguished, which are determined by the specific features of the mechanism of the catalytic process.

**Acidic center** is the grouping of atoms in the structure of a macromolecule or on the surface of a solid body, which is capable of attaching a base with transferring it to a conjugated acid.

**Acidity** is the ability of a substance to interact with a base. In this case, the base passes into the conjugate acid.

**The Act legal (statutory) on protection of the (person) environment** is the international or government decision (the convention, the agreement, the pact, the law, the resolution), decisions of local public authorities, the departmental instruction, etc. regulating legal relationship or setting restrictions in the field of protection of the environment surrounding the person.

**The activation energy**, for an elementary chemical transformation, is the minimum energy of the reagents, sufficient to overcome the barrier at the surface of the potential energy that separates the reactants from the products. If the reaction is complex (consisting of several stages), this term usually indicates an effective (apparent) activation energy.

**Activation of the catalyst** is a technological stage which prepares the catalyst for work with reactionary mixture. In some cases it is convenient to carry out activation of the catalyst after its loading into the reactor. At a stage of activation there is a final formation of necessary phase structure of the catalyst, for example, reduction, sulfonation, oxidation, dehydroxylation (removal of water), addition of the activator and other processes are carried out.

**Activation of chemical reactions** is a phenomenon of increasing the rates of chemical reactions in the presence of acids or bases, accompanied by their consumption. Such processes are sometimes called **pseudo-catalytic processes**. For such reactions, the mechanism of intermediate reaction of the reactants with the acid or base is similar to the true catalytic reaction, however, catalyst regeneration does not occur at the end of the catalytic cycle. Example: hydrolysis of carboxylic acid esters is accelerated in the presence of acid and represents a true