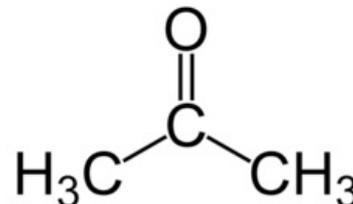


Acetone

Dimethyl ketone (propanone), known mainly under the trivial name acetone , is an excellent and often used organic solvent . It is also an intermediate product of some metabolic processes in the human body.

Physico - chemical properties

- Colorless liquid with a boiling point of 56.53 ° C with a characteristic odor
- Highly flammable, acetone vapor mixed with air explodes after spark or flame initiation
- It is toxic and dangerous for the environment
- Due to its high volatility and narcotic effects, it is often abused as a drug (see below)



Strukturní vzorec acetonu

Occurrence in the human body

Acetone is an intermediate in the oxidation of fatty acids in the liver . With increased fatty acid oxidation, acetate (acetoacetic acid) and β-hydroxybutyrate are produced in the liver , and acetate is spontaneously decarboxylated to form acetone.

Health effects

Hematopoietic and immune disorders may occur upon exposure to or ingestion of acetone vapors . Chronic airway inflammation and liver or CNS damage are common. In case of acute intoxication, the person must be resuscitated or oxygen inhaled. A possible complication is metabolic disruption caused by a liver or kidney disorder. Acetone can occur in the urine of diabetics on ketoacidosis or on reduction diets.

Abuse

Acetone is a very dangerous drug due to its high toxicity and easy availability. However, the incidence of acetone abuse (and organic solvents in general) has shown a declining trend in recent years and usually occurs in lower social users (in the vast majority of cases, it is adolescent users). == Objective symptoms include nystagmus , worn-out speech, staggering gait, reduced psychomotor pace to somnolence , or aggression. An intoxicated person may show signs of similar intoxication, but it can usually be distinguished by the odor that can be felt from his breath or intoxicated clothing (it must not be confused with the acidotic odor of a diabetic's breath!).

Subjective symptoms include euphoria or apathy, diplopia , muscle weakness and fatigue. Paranoid-hallucinatory symptoms or other manifestations of toxic psychosis may occur . Acetone may also be present in other drugs as an undesirable ingredient (used as a precursor or starting material in their manufacture) - typically meth . Overuse can lead to psychological dependence , withdrawal is without somatic symptoms.

Links

- ws:Aceton

<https://www.wikiskripta.eu/index.php?curid=53429>

Related articles

- Ketones

References

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