

## Alcohols Quiz PDF

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**What is the IUPAC name for the alcohol commonly known as rubbing alcohol?**

- Ethanol
- Methanol
- Propan-2-ol
- Butanol

**How does the presence of a hydroxyl group affect the physical properties of alcohols compared to alkanes?**

- The presence of a hydroxyl group allows alcohols to form hydrogen bonds.
- Alcohols have lower boiling points than alkanes.
- Alcohols are less soluble in water than alkanes.
- Alcohols have higher boiling points than alkanes.

**What type of reaction is involved in the conversion of alcohols to alkenes?**

- Oxidation
- Reduction
- Dehydration
- Esterification

**What is the functional group present in all alcohols?**

- Carboxyl group
- Hydroxyl group
- Carbonyl group
- Amino group

**What are the safety precautions necessary when handling methanol in a laboratory setting?**

- Use in a well-ventilated area.

- Wear protective gear.
- Avoid ingestion and skin contact.
- Store away from heat sources.

**Discuss the impact of alcohols on human health, focusing on both positive and negative effects.**

- Alcohols can have positive effects such as moderate cardiovascular benefits.
- Alcohols can cause addiction and liver damage.
- Alcohols have no impact on mental health.
- Alcohols can impair judgment.

**Explain the difference between primary, secondary, and tertiary alcohols.**

- Primary alcohols have the hydroxyl group attached to a carbon atom bonded to one other carbon.
- Secondary alcohols have the hydroxyl group attached to a carbon bonded to two other carbons.
- Tertiary alcohols have the hydroxyl group attached to a carbon bonded to three other carbons.
- All of the above.

**What are the environmental concerns associated with alcohol production? (Select all that apply)**

- Water usage
- Greenhouse gas emissions
- Soil degradation
- Air pollution

**Which of the following is a primary alcohol?**

- Methanol
- Isopropanol
- Tert-butanol
- Acetone

**Explain how alcohols can be used as intermediates in the synthesis of other organic compounds.**

- Alcohols can be converted into aldehydes.
- Alcohols can be converted into ketones.
- Alcohols cannot be used as intermediates.
- Alcohols can be converted into esters.

**What are the possible products of the oxidation of a primary alcohol? (Select all that apply)**

- Aldehyde
- Ketone
- Carboxylic acid
- Ether

**What is the main industrial method for producing ethanol?**

- Fermentation
- Hydration of ethylene
- Reduction of acetaldehyde
- Hydrolysis of esters

**Which of the following alcohols is most soluble in water?**

- Methanol
- Butanol
- Pentanol
- Hexanol

**Which alcohol is known for its toxicity and can cause blindness if ingested?**

- Ethanol
- Methanol
- Propanol
- Butanol

**Describe the process of fermentation and its role in alcohol production.**

- Fermentation is a biological process where sugars are converted into ethanol and carbon dioxide by yeast.
- Fermentation is a chemical process that requires high temperatures.
- Fermentation is a process that only occurs in anaerobic conditions.
- Fermentation is a process that can produce various alcohols.

**Which enzyme is primarily responsible for metabolizing ethanol in the human body?**

- Lipase
- Amylase
- Alcohol dehydrogenase
- Protease

**Which reactions can alcohols undergo? (Select all that apply)**

- Esterification
- Hydrogenation
- Dehydration
- Halogenation

**Which factors affect the boiling point of alcohols? (Select all that apply)**

- Molecular weight
- Hydrogen bonding
- Presence of double bonds
- Chain length

**Which of the following are considered polyhydric alcohols? (Select all that apply)**

- Ethylene glycol
- Glycerol
- Methanol
- Butanol

**Which of the following are common uses of ethanol? (Select all that apply)**

- Solvent
- Fuel
- Antiseptic
- Plasticizer