* Naming Systematically

Rules:

1. Assign the highest priority substituent to the beginning of the name.
2. Name the longest carbon chain.
3. Name the substituents in alphabetical order.
4. Indicate the position of the substituents using numbers.

Example:

CH\_3-CH\_2-CH-CH\_3

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2.

3.

- list numerically
- if

- iso, neo, cyclo →
- di, tri, neo, tetra →

CH₂CH₂CH₃CH₂CH₃
CH₃CH₂CH⁻CH⁻CH₃
CH₂CH₂CH₃

7. Common names, such as iso, neo, tetra can be used in IUPAC.

(look over the other rules)

CH₃CH₂CH₂CH₃

CH₃

common:

IUPAC:

CH₃CH₂CH₃

common:

IUPAC

Name:

Name:

Name:
Alky halide

common = alkyl group + halide

IUPAC = halide + functional grp name

$$\text{CH}_2\text{-CH-Br}
\begin{array}{c}
\text{CH}_3 \\
\end{array}
\text{common:}

\text{IUPAC:}

$$\text{F}
\begin{array}{c}
\text{CH}_3 \\
\text{CH}_2\text{-CH-CH}_3 \\
\text{CH}_3
\end{array}
\text{name:}

\text{Ether}

\text{common} \rightarrow

\rightarrow

\text{IUPAC:}

$$\text{CH}_2\text{CH}_2\text{-O-CH}_3
\text{common:}

\text{IUPAC:}

$$\text{CH}_3\text{CH-CH-CH-CH}_3
\begin{array}{c}
\text{Br} \\
\text{CH}_3 \\
\text{O-CH-CH}_2\text{CH}_3
\end{array}
\text{Name:}

Alcohols

fun group: "OH"

common:

IUPAC:
Amines

common:

IUPAC

fun group:

common:

IUPAC

5-methyl-N-propyl-2 hexanamine

quaternary ammonium salt