A thiol, thio alcohol, or mercaptan is a compound that has the following general structural formula.

\[
\begin{array}{c}
R^1 \\
\downarrow \\
C \quad S \\
\downarrow \\
R^3
\end{array}
\]

\(R^1\text{—}R^3\) could be hydrogen atoms, alkyl groups, aryl groups, or any combination thereof.

eg:

\[
\begin{array}{c}
\text{H} \\
\text{H} \\
\text{H} \\
\text{H}
\end{array}
\quad
\begin{array}{c}
\text{CH}_3 \\
\text{H} \\
\text{H} \\
\text{H}
\end{array}
\quad
\begin{array}{c}
\text{C} \\
\text{S} \\
\text{H}
\end{array}
\quad
\begin{array}{c}
\text{C} \\
\text{S} \\
\text{H}
\end{array}
\]

The sulfhydryl group in a thiol is called the thiol group.

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**Contributors**

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