The descriptors erythro and threo are used to distinguish between diastereomers containing only two chiral centers, which are adjacent and bearing two pairs of common ligands (1).

\[\text{A} - \text{C} - \text{C} - \text{B}\]

1

If, in the Fischer projection, like ligands are on the same side of the bond linking the chiral centers, the compound is identified as the erythro isomer; if they are on the opposite sides, the compound is identified as the threo isomer.

eg: 2,3-dichloroethane

\[\text{CH}_3\text{H} - \text{Cl} - \text{Cl}\]

\[\text{H} - \text{Cl} - \text{CH}_3\]

\[\text{ erythro}-2,3\text{-dichloroethane}\]

\[\text{CH}_3\text{H} - \text{Cl} - \text{Cl}\]

\[\text{H} - \text{Cl} - \text{CH}_3\]

\[\text{ threo}-2,3\text{-dichloroethane}\]
• Gamini Gunawardena from the OChemPal site (Utah Valley University)