

Amides

Amides

- An amide is a hydrocarbon derivative that contains the functional group **CON**, a carbonyl group bonded to a nitrogen.

- The general formula for the series is

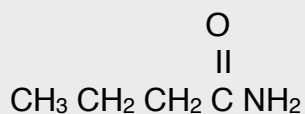


- Where the longer carbon group is R and the shorter carbon group is the side chain R'

Naming Amides

- 1) Identify the base number of carbons.
 - The **longest** carbon chain that contains the **carbonyl**.
 - Use the number of carbons as a prefix before the suffix **-amide**.
- 2) The carbonyl group is always at the end, so you don't need to indicate its location.
 - Name any additional side chains off of the parent chain as you would another alkane.
- 3) For secondary and tertiary amides, use N- to precede each additional carbon chain. Name these as you would a alkyl side chain and place them in alphabetical order.

Example:



Answer: butanamide

Drawing Amides

- 1) Start by drawing the base chain, the longest carbon chain attached to the double bonded oxygen. Draw the number of carbons as indicated by the prefix.
- 2) Add any additional side chains to the base chain as indicated.
- 3) Add the R' group to the nitrogen atom.
- 4) Saturate the remaining carbons

Example: N-propyl-3-methylbutanamide

Answer:

