

Amines and Amides

Amines: hydrocarbons with an amino group

General Formula:

Naming Amines:

Prefix – alkyl group (# of carbons with –yl-

Suffix – amine –

Ex CH_3NH_2

$\text{CH}_3\text{CH}_2\text{NH}_2$

Amides: made using a condensation reaction between a carboxylic acid and an amine.

Naming Amides:

Same rules as naming esters but end in –amide-

Properties of Amines and Amides

Amines have higher M.P., B.P. and solubility levels than alkanes because of amino groups able to H-bond.

Since N-H bonds are less polar than O-H bonds, amines boil at lower temperatures than alcohols.

Amides are generally insoluble in water.

Examples of Amines

1. Putresine – responsible for smell of decomposing animal flesh
2. Amino Acids – used to make protein