

27 Amines, amino acids, and polymers

Specification reference	Checklist questions	
6.2.1 a	Can you describe the basicity of amines in terms of proton acceptance by the nitrogen lone pair and the reactions of amines with dilute acids, e.g. $\text{HCl}(\text{aq})$, to form salts?	<input type="checkbox"/>
6.1.2 b i	Can you describe the preparation of aliphatic amines by substitution of haloalkanes with excess ethanolic ammonia and amines?	<input type="checkbox"/>
6.1.2 b ii	Can you describe the preparation of using tin and concentrated hydrochloric acid?	<input type="checkbox"/>
6.2.2 a	Can you recall the general formula for an α -amino acid as $\text{RCH}(\text{NH}_2)\text{COOH}$?	<input type="checkbox"/>
6.2.2 a ii	Can you recall the reaction of the carboxylic acid group with alkalis and in the formation of esters?	<input type="checkbox"/>
6.2.2 a ii	Can you recall the reaction of the amine group with acids?	<input type="checkbox"/>
6.2.2 b	Can you recall the structures of primary and secondary amino acids?	<input type="checkbox"/>
6.2.2 c	Can you describe optical isomerism (an example of stereoisomerism, in terms of non- superimposable mirror images about a chiral centre)?	<input type="checkbox"/>
6.2.2 d	Can you identify chiral centres in a molecule of any organic compound?	<input type="checkbox"/>
6.2.3 a i	Can you describe condensation polymerisation to form polyesters?	<input type="checkbox"/>
6.2.3 a ii	Can you describe condensation polymerisation to form polyamides?	<input type="checkbox"/>
6.2.3 b i	Can you describe the acid and base hydrolysis of the ester groups in polyesters?	<input type="checkbox"/>

Specification reference	Checklist questions	
6.2.3 b ii	Can you describe the acid and base hydrolysis of the amide groups in polyamides?	<input type="checkbox"/>
6.2.3 c i	Can you describe the precipitation from addition and condensation polymerisation of the repeat unit from a given monomer?	<input type="checkbox"/>
6.2.3 c ii	Can you describe the precipitation from addition and condensation polymerisation of the monomer required for a given section of a polymer molecule?	<input type="checkbox"/>
6.2.3 c iii	Can you describe the precipitation from addition and condensation polymerisation of the type of polymerisation?	<input type="checkbox"/>