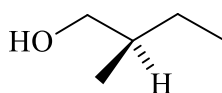


Marks
8

- Consider compound **A**, whose structure is shown below.

**A**

List the substituents on the stereogenic (chiral) carbon in compound **A**, in descending order as determined by the sequence rules.

Highest priority

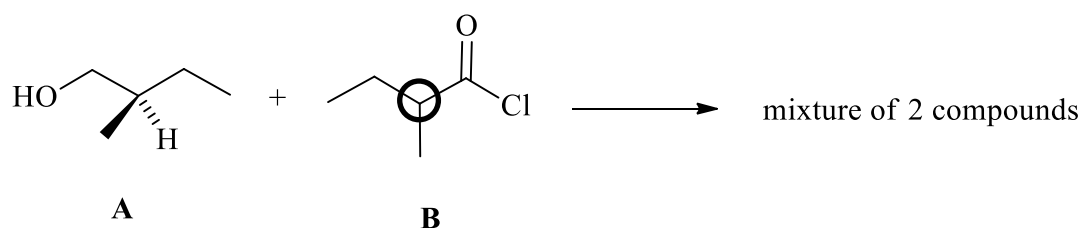
Lowest priority

-CH₂OH	-CH₂CH₃	-CH₃	-H
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Give the full name that unambiguously describes the stereochemistry of compound **A**.

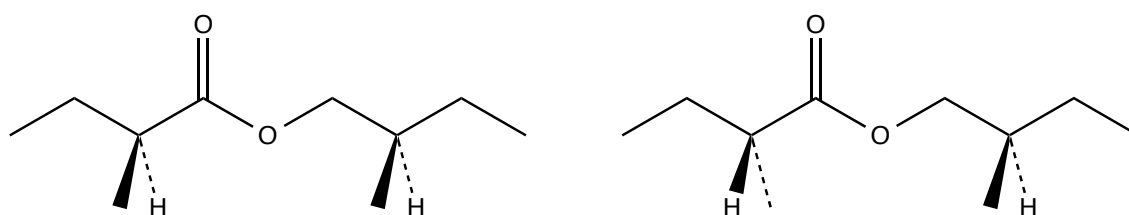
(R)-2-methylbutan-1-ol or (R)-2-methyl-1-butanol

When compound **A** is reacted with racemic compound **B**, two compounds are formed as shown below.



Circle the stereogenic centre in compound **B**.

Draw the stick structures of the two compounds formed in this reaction. Make sure you clearly show all of the stereochemistry in your structures.



Are the two compounds formed in this reaction enantiomers, constitutional isomers or diastereoisomers?

They are diastereoisomers (stereoisomers which are not mirror images).