

Marks
7

- Write out the full name in standard notation of $[\text{Co}(\text{NH}_3)_4(\text{SCN})_2]\text{Cl}$ and draw all the possible isomers of the complex ion.

Describe and contrast the nature of the chemical bonds:

- (a) between N and H in NH_3 ;
- (b) between Co and NH_3 ; and
- (c) between $[\text{Co}(\text{NH}_3)_4(\text{SCN})_2]$ and Cl in this compound.