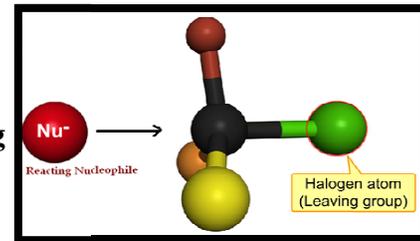


National Institute of Open Schooling
Senior Secondary Course : Chemistry
Lesson 25 : Compounds of Carbon Containing
Halogens (Haloalkanes and Haloarene)
Worksheet-25



- Rupa regularly cleans her artist father's metal table with an organic liquid given by her father due to this regular activity she had eye irritation. After few months she eventually losses vision in one of her eye. **(a)** What is the effect of chlorination in the presence of sunlight on methane? **(b)** Why did Rupa lose her eye sight? **(c)** List values associated with the above problem.
- Tincture of iodine is a common example of antiseptic is antimicrobial. Antiseptic is antimicrobial applied on living tissues. Shalu had read that iodoform also possesses an appreciable antiseptic property. How will you explain this? Identify the value associated with it.
- Sushil Kumar a farmer has 10 acres of land. He noticed some infection on the leaves of his crops. He called his friend Sambhu, who advised him to use DDT. However, Sushil Kumar preferred to use dry powder of neem leaves as an insecticide. **(a)** Mention reasons why Sushil Kumar prefer using neem powder? **(b)** In your opinion, who took right decision? **(c)** Write values associated with above decision?
- A sweet smelling organic compound 'A' is slowly oxidized by air in the presence of light to a highly poisonous gas. On warming with silver powder, it carbides on water. Gas 'B' is also used to make metallic objects reusable. Identify A and B. Write the values associated to use the reagent as minimum possible to conduct this chemical reaction.
- A farmer used insecticide excessively to protect his crops and improve the harvest. He cultivating his land near the village pond was also drawing water from it for irrigation. Over a period of time his agricultural growth improved vastly. But the pond lost its aquatic life. **(a)** Give the IUPAC name of the compound used as an insecticide but not a pesticide. **(b)** Contrast the activity in plants and aquatic life with insecticides. **(c)** What value got expressed in student's suggestions?
- Among the following pairs which one undergoes S_N2 substitution reaction faster.State reasons.

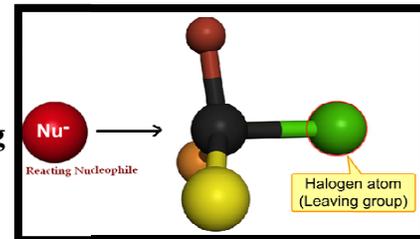
(i)



(ii)



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7. How can the following conversions be carried out?
- (i) Methyl magnesium bromide to 2-methyl- propan-2-ol
 - (ii) Benzyl chloride to benzyl alcohol
 - (iii) 2-Bromopropane to 1-bromopropane
 - (iv) Benzene to p-chloronitrobenzene
8. State reasons for:
- (i) p-dichlorobenzene has a higher melting point than its o- and m-isomers.
 - (ii) (±)-Butan-2-ol is optically inactive.
 - (iii) The C–Cl bond length in chlorobenzene is shorter than that in CH₃–Cl.
 - (iv) Chloroform is stored in closed dark brown bottles.
 - (v) Alkyl halides, though polar, are immiscible with water.
9. Identify chiral and achiral molecules in each of the following pair of compounds:
- (i)
- (ii)
10. Somesh a student of class IX fell down and got hurt. Nitin a boy of class XI immediately took him to the doctor and the doctor dressed the wound with the halogen compound. (a) What is the name and formula of the compounds? (b) Write any one method of preparation. (c) What values can you find in Somesh?