7.11 Chloramine

The term chloramine unfortunately is often used to refer to both NH_2Cl and to any organic molecule which contain a Cl atom on the amine group.

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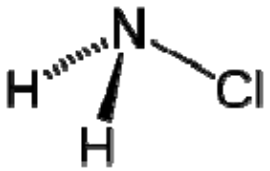

Chloramine

Chloramine is being used as a water disinfectant in many city public water systems. It is replacing chlorine because chlorine can react with organic compounds to form chlorinated compounds such as CCl_4(carbon tetrachloride)and $HCCl_3$(chloroform) which are carcinogenic in rats. As a result, the EPA has put limits on the amount of these compounds which can be in drinking water. Chloramines also act as water disinfectants. They are not as potent as chlorine, but they produce fewer chlorinated organic molecules and last longer while water is being transported through the large city water distribution system. Like chlorine, they must be removed before use in dialysis centers and in aquariums. (In both cases the chloramine comes in direct contact with blood either via the gills or the dialysis filter membranes.) Chloramine concentrations are limited to a maximum of 3 parts per million (ppm or mg/L). Higher concentrations, which may occur in poorly maintained swimming pools, may cause skin rash and irritation and burning eyes.