

C.W. is an extremely concentrated aqueous solution of Sodium Silicate.

The chemistry of Sodium Silicates is well known and has found a wide area of application over many years. These fields include components of household and Industrial detergents, bonding and adhesives, general chemical use, and water treatment.

Silicates like Performance C.W find use in the field of water treatment for the following reasons:-

They are soluble and alkaline and importantly possess buffering characteristics. The large buffering capacity of the silicates is confirmed by their ph stability when neutralised until the alkali has almost disappeared.

Surface modification: The Silicate Anion (SiO_4^{4-}) has a strong negative charge and will adsorb selectively onto exposed mineral and oxide surfaces, even at relatively low concentrations.

One application advantage of surface adsorption is that it helps to disperse and suspend inorganic soil and soils by imparting a mutually repellent charge to the soil particles and to the surface from which they were removed.

Corrosion prevention: C.W. can reduce corrosion by adsorption onto a range of metallic and non-metallic surfaces. In the water industry small continuous doses of silicates are added to the water to help prevent corrosion of the distribution pipe network.

Reactions with metal ions: Silicates react with multivalent ions to form insoluble complexes. At high metal ion concentrations silicates can be used to precipitate calcium, aluminium or magnesium to yield insoluble silicates. At much lower metal ion concentrations C.W. can be used to sequester Iron and manganese and prevent water discolouration.

As can be seen the applications and benefits of silicates and C.W. are widespread and of particular usefulness in the field of water treatment.

Suggested Dosage:

3kg per 1000 litres (1tonne) water in tank.

Repeat every 10 - 14 days if water remains in tank.