What sort of is DUOZON ... and how does it work?

Duozon is a liquid solution ready to use (ClO_2). Duozon is inorganic and easily fastly and free from residue mixable with any water. Duozon is stable against UV radiation and temperatures until +35°C and that is why it is well storable.

The essential andvantage of Duozon is based on its different chemical reaction. Duozon works oxidizing not like chlorine or hypochlorite chlorinating. Duozon has an effectiveness which can be 6 times higher than chlorine compouds. In contrast to disinfection with chlorine gas or hypochlorite by oxygene oxidation with Duozon there will be no forming of resistances. Within the range of pH values of 5 - 9 its effectiveness remains constant. Especially at pH values higher than 7 there is a significant effectiveness in opposite to chlorine. The chlorine effectiveness then decreases strongly. Whereas at a pH value of 6,5 the residue of hypochlorous acid (HOCl) still is 89,2%, at a pH value of 8 there only remains 8,72 % hypochlorous acid. The rest ist hypochlorite with essential less effect.

Duozon is a chemikal compound made of chlorine and oxygen. In water the chemical binding exists as long till Duozon is used up by occurence of oxidizing substances (ammonia, iron, phenol, THM etc.).

If Duozon in watery solution is in surplus, it can be stocked up without self oxidation until 48 hours. The oxidation of water pollution is made by the reaction with the splitted - off oxygen and not by chlorine. Furthemore aromatic, organic substances will be oxidized with Duozon in nonpoisonous odorless chinon or carbon.

Because of these properties and because of the enormous strenght of oxidation the application causes in opposite to chlorine products evident les trihalogenmethanes like per example chloroform dichlormethan, , trichlorethan, dichlorethan etc.

Beyond that following chemical properties are of outstanding importance for water treatment. Duozon e.G. does not react with phenol and amine like chlorine with chlorinated phenol or chlorine nitrogen compounds – thus intensively smelling and tasting compounds. Just the opposite Duozon oxidizes these in odorless compounds.

This happens to phenol:
Duozon causes a break of the benzene ring and forms the tasteless maleic acid. Therefore the unpleasant, medical phenol smell can be eliminated completely out of the water.

This hapens to amine:
Chlorine usually reacts in water with amine to chloramine. Duozon splits these undesirable water pollutants (amonium, urea, uric acid and other amino compounds),which are known as chlorine nitrogen compounds (chloramine, bounded chlorine) in a so-called wet burning to carbon dioxide, nitrogen and water.

Liquid chlorine oxides ClO_2 (Duozon 100 L) for super oxidation are also protected internationally by patents.

YOUR WATEREXPERTS

cealin®

Cealin, chem. Factory GmbH
Foreign trade department
Paul-Keller-Str. 8
D – 31 139 Hildesheim
Tel.: 0049 – 5121 – 517264
e-Mail: cealcermak@aol.com