

# PROPOSAL OF CDD 5000 & COVERING LETTER



We are India's only established & approved manufacturer for our various range of ClO<sub>2</sub> products. (Powder, Liquid, Tablets) etc... We have a CGMP certified production facility spread over 20000 Sq. feet. Our facility & product both are as per ISO 9001-2015 certification. And they are following the quality norms as per NSF - ANSI 60 standard.

Our products are approved by Ministry of Drinking water and sanitation & used in 8 states in India for drinking water & exported in over 23 countries globally. **(Punjab, Rajasthan, U.P, West Bengal, Goa, Maharashtra).**

## **CDD 5000 CHLORINE DIOXIDE (ClO<sub>2</sub>) approved by NSF-ANSI 60**

**As we all are aware that the chlorination of drinking water is the most common method for disinfection and department are using Chlorine Gas, sodium hypochlorite etc. for disinfection of drinking water however, this method has several drawbacks like generation of carcinogenic disinfection by-products (formation of trihalomethanes) which is very harmful and already proven that it is carcinogenic prone to cancer and other incurable diseases of Eyes, Bones, Lungs, Liver etc. etc. etc. In this regard a report of World Health Organization (WHO) and Environmental Protection Agency (EPA), USA is enclosed herewith. Moreover, it is ineffective because residual reflecting for maximum 2-3 hours.**

To overcome with this problem our company is manufacturer of chlorine dioxide (ClO<sub>2</sub>) CDD 5000TM as per DIN EN 12671: 2009-04 (chemical used for treatment of water intended for human consumption), NSF ANSI 60 approved a copy of the same is enclosed herewith. We are an ISO 9001-2008 certified company our facility and products are certified by NSF.

**Chlorine Dioxide. "CDD5000TM"** is a unique advanced delivery system of two powder component that generates 0.50% (5000 PPM) pure Chlorine Dioxide solution that is applied as a drinking water disinfectant. "CDD5000TM" 0.50% solution does not contain free chlorine. The active biocidal substance is the chlorine dioxide molecular, at least 10 times more powerful than chlorine and chlorine type disinfectants.



## BENEFITS ARE AS UNDER:

- Indigenous product,
- On site testing kit is available.
- Powerful inorganic oxidizing agent and free radical with residual disinfection capacity.
- 99.9% effective against all water borne microorganisms (spore forming bacteria, viruses, protozoa, fungi and yeast).
- Very short contact time.
- Long residual disinfection capacity (up to 48 hours).
- High efficiency in the removal of iron and manganese compounds.
- Destroy algae related taste and odour compounds.
- Steady bactericidal efficacy within a board pH.
- More disinfection and less chemistry.
- Dos not react to water to form hypochlorous acid (no free chlorine).
- Chlorite and chlorate building heavily suppressed.
- “CDD5000” doesn’t chlorinate organic materials.
- Decrease THM, HAA, MX other organic compounds with toxic or carcinogenic properties.
- European Standard DIN EN 12671.
- Shelf life - 2 years.
- Kinetic strength of the CDD5000 solution remain same for 30 days of the solution.
- Very easy transportation.





## POINTS FOR CONSIDERATION:

### CORROSION

Chlorine reduces the life of the plant by average 15 to 20% as per the studies conducted. Whereas **CDD 5000** is no corrosive. Enclosed the supporting documents.

### TRANSPORTATION

In case of rural water supply the schemes are small in size and scatters over various locations. With the conventional treatment it is expensive and practically difficult to carry the conventionally used chemicals. Which on many occasions result into a procedural bottleneck and hurdle in providing safe drinking water.

### SHELF LIFE

Bleaching powder has a life of 3 months & sodium hypochlorite has a life of 1 month. And after opening the bag the contents are to be used immediately. Which in many occasion results into goods obsolescence or using expired goods. This also increases the operational cost & other aspects. (**CDD 5000** has a shelf life of 3 years).

The generated mother liquor is stable only for a day in case of SBP & 5-6 days in case of sodium hypochlorite. Which restrict the use to a drastic extent. **CDD 5000** solution has a shelf life of 30 days.

### RESIDUAL EFFECT & CONTACT TIME

Chlorine needs minimum 30 minutes to complete its disinfection. All the home coming before 30 min of the dosing gets a untreated water. Residue after dosing stays only for 3-4 hrs. **CDD 5000** has a contact time of 1 to 5 minute. And residue in water stays till 24 hrs.

