

DIOTIN

CREATING A CLEANER TOMORROW TODAY

What is DIOTIN ?

- DIOTIN is a breakthrough chemistry, the most powerful method for recycling, treating water and cleaning in place in the safest, most efficient and sustainable form.
- DIOTIN is a unique chlorine dioxide solution which stays in the liquid phase even after dilution and can be applied in almost any commercial and industrial application where water is used.
- Utilising pioneering biotechnology DIOTIN provides the most effective and comprehensive treatment for bacteria, biofilm, pathogens, fungi, and water borne viruses where consistent dependable results are critical, DIOTIN is safe and stable enabling transportation and use with a 24 month shelf life reduced chemical usage by up to 90% , greater water reuse, reduced cost and reduced energy usage are just some of the key benefits which contributes to profitable ESG.
- DIOTIN is environmentally friendly, DIOTIN is the only stable, long life, transportable Chlorine Dioxide concentrate technology available. DIOTIN is faster, more effective, safer and more environmentally friendly than existing water treatment.
- The pioneering biotechnology that goes into DIOTIN delivers the most effective and comprehensive treatment for bacteria, biofilm, pathogens, fungi and water-borne viruses where a consistent, dependable result is critical.

Key Benefits

- Water Recycling – DIOTIN enables businesses to safely reuse more water by improving the quality, reliability and efficiency of water recycling, thereby reducing the dependence on external water sources and safeguarding ongoing operations.
- Reduced Chemical Use – DIOTIN is proven to be up to 90% more powerful than other water treatments such as Chlorine. This results in less chemical use, better results, and less pollution.
- Reduced Pollution – DIOTIN is unique in delivering stable Chlorine Dioxide in a safe and stable liquid format; resulting in the highest levels of water quality, with minimal environmental impact.
- Reduced system maintenance and downtime – DIOTIN is not corrosive and will deliver improved performance without the need for the costly ongoing repair and maintenance.

Why change to DIOTIN ?

- A single product, ready to use with no onsite generation required.
- A single product ready to use without the need for heavy machinery.
- Ground breaking chemical buffering results in a long shelf life with no product degradation even at elevated temperatures and outdoor storage.
- High product stability. Minimal vapour evolution during transport and storage under 55°C.
- No gassing from solution and minimises headspace and water line corrosion.
- The most effective oxidant in water treatment for the control of bacteria, biofilm, pathogens, fungi, and waterborne viruses.
- Extended biocide release activity delivers superior results at lower dosage levels.
- Chlorine Dioxide is produced in situ by dilution in the target water stream via a simple dosing pump or manual input
- High available biocide concentration for precision, lower chemical dosing requirement drives significant cost savings through:
- Reduced chemical expenditure, more efficient logistics and storage, Energy, water and maintenance efficiencies, Reduced system damage and corrosion, no need for heavy plant and machinery sites.

Key ESG Benefits of using DIOTIN:

- Significant increases in the amount of water that can be reused and recycled safely in virtually all applications.
- Significant operational cost reductions are delivered through lower chemical dosing requirements.
- This regenerative chemistry sustains the formation of Chlorine Dioxide and reduces the chemical dosage requirement for more precise, safer treatment.
- Better system control at lower dosage results in reduced site visits for chemical deliveries.
- Significant reduction in gas emissions as a disinfectant by-product.
- Long shelf life allows for significant reduction in product testing and replacement reducing emissions from regular site visits.
- Reduction in chemical residuals in waste water reduces pollution levels in surrounding water table.
- DIOTIN can be applied safely into the target water stream and monitored remotely.

Ghana Without DIOTIN



DIOTIN Test In Ghana



DIOTIN Test In Ghana Results



What Did DIOTIN Achieve ?

- DIOTIN removed Lead from the water
 - DIOTIN removed Mercury from the water
 - DIOTIN removed E.coli from the water
 - DIOTIN removed Legionella from the water
 - DIOTIN removed all water born viruses from the water
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- DIOTIN caused decolourisation, transforming the waters visual appearance from a darkened brown to a natural, clear transparent and fresh state.

Proposal For Ghana Using DIOTIN

- DIOTIN With Klarolaks can be used across Ghana in all industries, there is no contaminant our product cannot be used to fight, the dosage level was based on 10ml per ton of water, we advise to our customers and clients that the dosage can be increased with no harm to the aquatic life or human beings if being used against a higher contaminant.
- To begin to make a critical change in Ghana's water ways, we predict Ghana will need to purchase a total of **2568 containers per year** by doing so Ghana can remove the bacteria's and toxins they currently have and revert the colour of the water from brown back to a natural clear state. We propose to the Ghanaian Government to start with a 10-year contract at the above volume yearly and suggest this be revisited bi-annually to see if there is a need for an increase in volume or if the current supply volume is adequate.
- **2568 containers** will clean **5,084,640,000 cubic tonnes** of water each year
- The cost to the Ghanaian Government yearly for our product will be \$762,696,000
- DIOTIN proposes through the above for the government to begin to be seen cleaning the water sources in an industrial way, at the same time allowing for DIOTIN to begin with education courses for the private and illegal mining sectors on how best to become sustainable, DIOTIN proposes a new licence permission based on education and product use allowing for small scale miners to apply for export permits in return for sustainable mining

Water Treated Cost Ratio Analysis

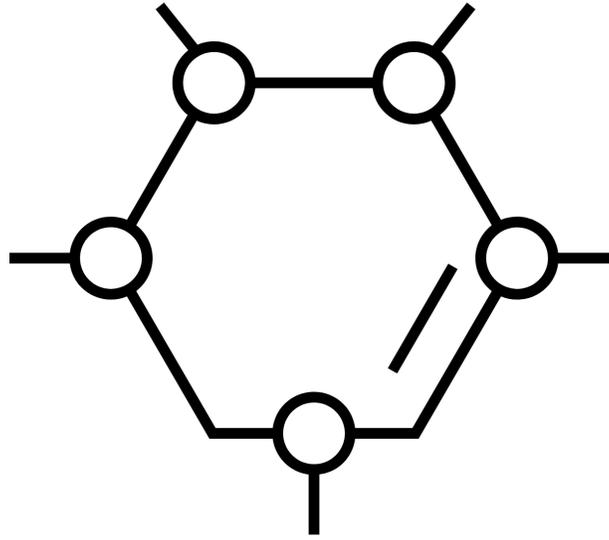
| <u>Volume of Product Used</u> | <u>Volume of Water Treated</u> | <u>Cost \$</u> |
|-------------------------------|--------------------------------|----------------|
| 10ML | 1 Ton | \$0.15 |
| 1LTR | 100 Ton | \$15 |
| 1 IBC (1000 LTR) | 100,000 Ton | \$15,000 |
| 1 Container (19,800LTR) | 1,980,000 Ton | \$297,000 |
| 10 Container | 19,800,000 Ton | \$2,970,000 |
| 100 Container | 198,000,000 Ton | \$29,700,000 |
| 1000 Container | 1,980,000,000 Ton | \$297,700,000 |
| 2568 Container | 5,084,640,000 Ton | \$762,696,000 |

What Will Diotin Do As A Company For Ghana ?

- DIOTIN will supply the requested volume without fail
- DIOTIN will create free educational workshops for public and private sectors
- DIOTIN will create free educational courses and visits for, and to, the illegal mines to educate the minors on becoming sustainable through correct and safe product use but more importantly on how to recycle the water
- DIOTIN will in partnership with the government create a surveillance of the Ghanaian waters to control future contamination and pinpoint the cause to assist in a clean up but also for finding at fault parties and giving free training. This surveillance also allows the government to fine the parties or withdraw export permits
- DIOTIN proposes the government make it possible through a compulsory mining course run for free by DIOTIN that miners are given an export permit licence on completion of the full course where they must prove to have knowledge and understanding in sustainable mining
- DIOTIN will offer an emergency system should a contamination happen in country so that fast assistance is available in a shortened period of time
- DIOTIN will create jobs in Ghana
- DIOTIN will work with Ghana's government to offer assistance through all industries to become more efficient in process but also in financial costings.

Options For Ghana For Financing The Project

- IMF Grant funding and loan offset
- UNICEF Grants
- United Nations Grants
- Bill & Malinda Gates Foundation Grants
- African World Bank Group Grants
- Creating water credits with every litre of water treated and trading abroad
- Increase in tariffs on gold mining
- Increase in taxes on gold export
- Ghanaian Government mandates DIOTIN as the only Chlorine Dioxide product to be used in country
- Ghanaian government becomes the only in country supplier and seller of DIOTIN in Ghana
- Ghanaian government creates a new source of governmental income



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