



BIOXIDE® PLUS 71 BIOCHEMICAL SOLUTION

BIOXIDE® Plus 71 solution is a unique product which combines the benefits of BIOXIDE solution with a proprietary blend component to achieve highly effective odor and corrosion control. BIOXIDE solution is a proven product that controls sewage odor naturally, rather than chemically. This process eliminates the odor, prevents corrosion and overcomes safety concerns associated with atmospheric hydrogen sulfide.

In many wastewater streams low levels of dissolved sulfides may be present at the nitrate addition point. To address this, a proprietary component is blended with BIOXIDE solution to react immediately with small quantities of dissolved sulfides and prevents the downstream formation of new sulfides. The blend component of BIOXIDE Plus 71 solution's also reacts with fats, oils, and grease to help minimize the accumulation of these deposits at the point of application.

BIOXIDE Plus 71 solution provides a source of bound oxygen (nitrate-oxygen) to naturally occurring facultative anaerobic denitrifying bacteria present in wastewater, which the bacteria metabolize preferentially over alternative sources of oxygen, such as sulfate. Denitrification is a respiratory process where nitrate is reduced to nitrogen gas (N₂) via a number of intermediates. The product of this reaction is inert,

rather than the odorous, toxic and corrosive hydrogen sulfide gas normally produced when sulfate reducing bacteria (SRB) metabolize the sulfate. BIOXIDE Plus 71 solution is effective at controlling odors within minutes to days of application, and also results in a slight reduction in Biological Oxygen Demand (BOD). In addition to hydrogen sulfide, BIOXIDE Plus 71 solution also combats most other odors commonly found in wastewater treatment systems.

TYPICAL PHYSICAL PROPERTIES

Nitrate Oxygen Content	2.4-2.9 lb/gal
Appearance	Clear/amber liquid
Odor	Slight chlorine
Solubility in Water	Complete
Specific Gravity	1.32-1.44 at 20°C
Density	11.01- 12.01 lb/gal at 20°C
Freezing Point	< -14°C
pH	8.0 - 10.0

Typical properties are listed for information only, and are not to be considered as specification requirements. These items are not analyzed on a routine basis.

Typical Applications

- Lift stations/wetwells
- Force Mains/Pressure Mains
- Gravity Interceptors

Proper dosage (as determined by Evoqua Water Technologies) of BIOXIDE Plus 71 treatment solution to a wastewater stream provides for a population of beneficial bacteria which oxidize dissolved hydrogen sulfide and other reduced sulfur compounds as part of their metabolism.

Typical Feed Requirements

Treatment is typically applied in a collection system upstream of the odorous control point. From a carefully selected point(s), the benefits will spread throughout the collection system to the influent of the treatment plant. The process has been documented to reduce dissolved hydrogen sulfide from over 50 mg/l to < 0.1 mg/l in numerous wastewater collection force mains, wet wells and gravity interceptors. Similar results have been achieved with BIOXIDE® treatment in sludge lagoons and storage tanks. Due to the biochemical nature of this process, complete sulfide removal is extremely cost effective in applications where extended detention times produce septic conditions.

For additional treatment information, including dosage specific to your application, please contact your Evoqua Water Technologies representative.

Storage and Handling

The BIOXIDE Plus 71 solution is environmentally safe. It contains no hazardous substances as defined by the CERCLA list of reportable quantities and the OSHA Hazard Communication Standard (29 CFR 1910.1200). The active ingredient is nitrate salts which is a stable, safe compound found in nature. This compound is selected as the active ingredient in BIOXIDE solutions because it specifically interacts with naturally occurring bacteria to remove and prevent dissolved sulfide, resulting in an effective, safe and cost efficient product.

See Material Safety Data Sheet for additional safety and handling information before storing or handling BIOXIDE solution.

Packaging

BIOXIDE Plus 71 solution is normally shipped in 3,800 gallon bulk tanker loads. Mini bulk deliveries (<2,000 gallons) are available in many parts of the country. For further information, please contact your Evoqua Water Technologies representative. For reorders and customer service, call 1.800.345.3982



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