BIOXIDE-AQ® solution – the natural choice for odor and corrosion control

BIOXIDE-AQ solution is an improvement on the effective BIOXIDE® solution which controls odors and corrosion caused by hydrogen sulfide and other compounds in wastewater systems. AQUIT® solution has been added to the BIOIXIDE solution to form a powerful hydrogen sulfide removal and prevention system.

BIOXIDE-AQ solution controls hydrogen sulfide odors and corrosion biologically. Introduction of nitrate oxygen via addition of BIOXIDE-AQ solution into a waste stream creates an environment in which certain naturally occurring bacteria thrive. These bacteria utilize the dissolved hydrogen sulfide which is present as a part of their metabolism, thereby cost effectively removing any dissolved hydrogen sulfide from the wastewater. The AQUIT solution inhibits the Sulfate Reducing Bacteria's (SRB's) ability to use sulfate as an oxygen source, thus reducing the formation of downstream hydrogen sulfide. As a result, BIOXIDE-AQ solution both removes dissolved hydrogen sulfide and prevents its formation.

In addition to hydrogen sulfide, BIOXIDE-AQ also combats most other odors commonly found in wastewater treatment systems. BIOXIDE-AQ solution has proven effective treatment in many types of wastewater facilities, in widely varying flows, and in any kind of weather.

Typical physical properties

Nitrate oxygen content	3.5 lb/gal
Appearance	Turbid tan
Odor	Odorless
Solubility in water	Complete
Specific gravity	1.42 – 1.48 at 20° C
Density	11.84 – 12.34 lb/gal at 20° C
Freezing point	< -20° C
pH	5 - 7

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

- Force mains/pressure mains
- Gravity interceptors
- Lift Stations
- Biosolids processing
- Ponds and lagoons

Proper dosage (as determined by Xylem) of BIOXIDE-AQ treatment solution to a sludge or 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. In addition, the SRB's are inhibited by the AQUIT Solution. By treating the hydrogen sulfide both in flow and solids of the wastewater stream, the process prevents release of hydrogen sulfide into the air, reducing odors and corrosion.

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-AQ 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 Xylem representative or send an inquiry to utilityservicesinbox@xylem.com.

Storage and handling

Bioxide AQ solution contains no substances that are listed on the Extremely Hazardous Substances (EHS) under Section 302 of EPCRA or on the Extremely Hazardous Substances (EHS) Release Notification under Section 304 of the EPCRA. Bioxide AQ solution is not listed as a CERCLA hazardous substance. It is regulated under the provisions of Section 313 of EPCRA. The active ingredients are nitrate oxygen and anthraquinone which are both stable compounds. These compounds were selected as the active ingredients for BIOXIDE-AQ because they specifically interact with naturally occurring bacteria to remove and prevent dissolved sulfide, resulting in an effective, safe and cost efficient product.

Can be stored outdoors in ambient conditions. Follow all local, state and federal regulations for storage. Do not dump on the ground or release into any body of water. All disposal methods must be in compliance with all Federal, State, Local and Provincial laws, and regulations. Regulations may vary in different locations.

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

Packaging

BIOXIDE-AQ 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 Xylem representative.

All information presented herein is believed reliable and in accordance with accepted engineering practices. Xylem makes no warranties as to the completeness of this information. Users are responsible for evaluating individual product suitability for specific applications. Xylem assumes no liability whatsoever for any special, indirect or consequential damages arising from the sale, resale or misuse of its products. Subject to change without notice.

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MS-BIOXIDEAQ-DS-0526