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M-25 COAGULANT/FLOCCULANT

M-25 is a liquid polyquaternary amine coagulant with a high cationic charge. It is formulated to destabilize colloidal particles in wastewaters, and aids in liquid/solid separation for settling, filtering and sludge dewatering applications. **M-25** is effective in producing a clear supernatant and an easily filtered sludge. It is non-hydrolyzable which gives it the advantage of functioning over the entire pH range.

In industrial wastewater treatment the particles suspended in wastewaters are typically stabilized by negative electric charges on their surfaces, causing them to repel each other.

M-25 provides positive electric charges, which destabilize the colloidal suspension, slowing the particles to collide and form flocs. It also promotes the bridging, or coupling, of the microflocs into larger flocs.

SOLUTION PREPARATION AND DOSAGE:

M-25 is an emulsion polymer of high molecular weight and must be diluted with clean, neutral pH water before use. Start with a dilution ratio of 1:50 (**M-25**:water). This 2% solution is within the typical concentration range for wastewater treatment applications. To determine the optimum dilution ratio and dosage, perform the bench scale jar test described on the backside of this bulletin and relate the results to the capacity of the polymer pump. Stock solution should be used within 2 days after preparation.

M-25 should be dosed at a point that ensures complete mixing using a corrosion resistant positive displacement pump. Rapid mixing of **M-25** with the wastewater is required to destroy the stability in the colloidal system. For particles to agglomerate they must collide and high energy mixing is most effective since it distributes the **M-25** throughout the liquid and promotes rapid collision. Do not overdose **M-25** as this can result in a complete electric charge reversal and restabilize the colloid complex.

STORAGE & HANDLING:

Store **M-25** in a closed plastic drum until ready to use. Protect from frost and do not store for long periods of time at temperatures over 85° F. If freezing occurs, the product may be used after being thawed and thoroughly mixed. Do not use aluminum or iron in feed or storage systems. **M-25** is not toxic and no special precautions are required when handling. However, spilled product can be very slippery and should be soaked up with sand or sawdust, or washed away with a strong stream of water.

SEE THE MATERIAL SAFETY DATA SHEET FOR FURTHER INFORMATION

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