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Product Data Sheet

Date: 06/24/08
Supersedes: New
PRODUCT #: N7225

METALTREAT 513

Heavy Metal Precipitant

DESCRIPTION: A heavy metal precipitant used to remove metals from wastewater streams. *METALTREAT 513* is particularly useful in the treatment of wastewater from plating operations. It is effective over a wide pH range and, when used as recommended, provides nearly complete precipitation of metals, even in the presence of other chelating or sequestering agents. The sludge cake produced from its use is compact, highly insoluble, and easily dewatered. Its low solubility means that it is less susceptible to leaching and is more likely to pass leaching tests such as those required by the U.S. EPA.

BENEFITS:

- **Effective over a wide pH range**
- **Nearly complete precipitation of metals**
- **Produces compact, highly insoluble sludge cake**

SPECIFICATIONS:

Flash Point (TCC):	>212°F
Appearance/Odor:	Clear yellow to yellow-green liquid with slight ammonia odor
VOC Content (EPA Method 24):	None

APPLICATION: The weight of *METALTREAT 513* is equivalent to a unit weight of metal ion is approximately equal to 358 times the metal ion valence divided by the atomic weight of the metal. The table below show the concentration of *METALTREAT 513* equivalent to 1.0 mg/l (1 ppm) of various metal ions. The recommended dosage for complete precipitation of a metal is 10% to 30% in excess of the stoichiometric equivalent. For example, the equivalent for Cu⁺² is 11.3 parts by weight of *METALTREAT 513* per 1.0 ppm of Cu⁺², but about 13 parts of *METALTREAT 513* would be needed for complete precipitation. For best results, the required concentration for a given application should be determined by laboratory tests. If practical, adjustment of the pH to values between 7 and 9 can often help improve the effectiveness of the precipitant.

METALTREAT 513 can be added continuously or batch-wise as required. The treated effluent should be continuously agitated, usually for at least one hour, and then allowed to settle. Flocculants can be used to improve the efficiency of the separation of the precipitate from the liquid.

Metal Ion	<i>METALTREAT 513</i> Equivalent Concentration mg/l (ppm)
Ag ⁺¹	3.3
Cd ⁺²	6.4
Co ⁺²	12.1
Cu ⁺²	11.3
Fe ⁺²	12.8
Hg ⁺²	3.6
Hg ⁺¹	1.8
Mn ⁺²	13.0
Ni ⁺²	12.2
Pb ⁺²	3.5
Zn ⁺²	11.0

***PACKAGING and
HANDLING:***

METALTREAT 513 is a water-soluble liquid packaged in non-returnable drums and 5 gallon containers. Refer to the Material Safety Data Sheet for suitable materials of construction for handling and storage of this product. Contact of *METALTREAT 513* with copper alloys should be avoided.

Improper handling of this product can be injurious to workers. Observe all safety precautions shown on the label and in the Material Safety Data Sheet.

This product should be used only for its intended purpose. The information stated above is based on our laboratory tests and experience, and is accurate to the best of our knowledge. Since actual use is beyond our control, the recommendations or suggestions are made without warranty, expressed or implied.