

ZI-CHEM 7830

Clarification Metals Precipitation

HIGHLIGHTS

Heavy metals in waste water are usually precipitated by adding sodium hydroxide or lime during neutralization. However, the results of this process are far from satisfying in many cases: The remaining heavy metal concentrations are too high. A complete hydroxide precipitation does not take place especially in the presence of complexing agents.

ZI-CHEM 7830 contains an organosulphide that when added to the waste water will address this problem: The precipitation will be completed, and the remaining residues of e.g. cadmium, copper, lead, mercury, nickel, or silver are reduced to an extremely low level.

Another application for ZI-CHEM 7830 is in the alkaline scrubber of a wet flue gas cleaning system to minimize the mercury (Hg) emissions. In this case, the chemical reduction of ionic mercury to elementary mercury by SO is suppressed by fixing the ionic mercury with ZI-CHEM 7830. Thus, Hg is separated from the flue gas and the emission in the cleaned gas can be minimized.

TYPICAL PROPERTIES

- Appearance: Colorless to yellowish liquid
- Specific gravity: ca. 1.05 – 1.25 g/cm³
- pH: ca. 11.5 – 12.5
- Boiling point: 101 °C

PRIMARY APPLICATIONS

In order to achieve the best performance, the pH-value of the treated waste water should be adjusted to a neutral/slightly alkaline range. The precipitate of ZI-CHEM 7830 with heavy metals can be easily flocculated and separated, similar to the corresponding hydroxides.

FEEDING & CONTROL

ZI-CHEM 7830 should be added using a chemical metering pump with liquid end constructed of suitable materials. These include PVC, polypropylene, Viton, Teflon and stainless steel.

The dosage will depend on the operating conditions and the chemistry of the water being treated. Your ZI-TECHASIA technical field specialist will recommend the most appropriate dosage for your particular application on an ongoing basis.

THE BENEFITS

- Regulatory compliance with waste stream discharge requirements
- Flexible program to respond to variable water conditions
- Avoids high capital costs

COMMON APPLICATIONS

- Automotive industries
- Electroplating plants
- Mining industry

PACKAGING

- 30kg pails
- 250kg drums
- 1,200kg IBC's or in bulk

HANDLING & SAFETY

ZI-TECHASIA maintains a database of material safety data sheets (MSDS) on all our products. These contain health & safety information to assist in the safe and appropriate chemical handling, ensuring the protection of personnel.



ISO 9001:2008 Certificate No.SG12/04040

ISO 14001:2004 Certificate No.SG12/04041