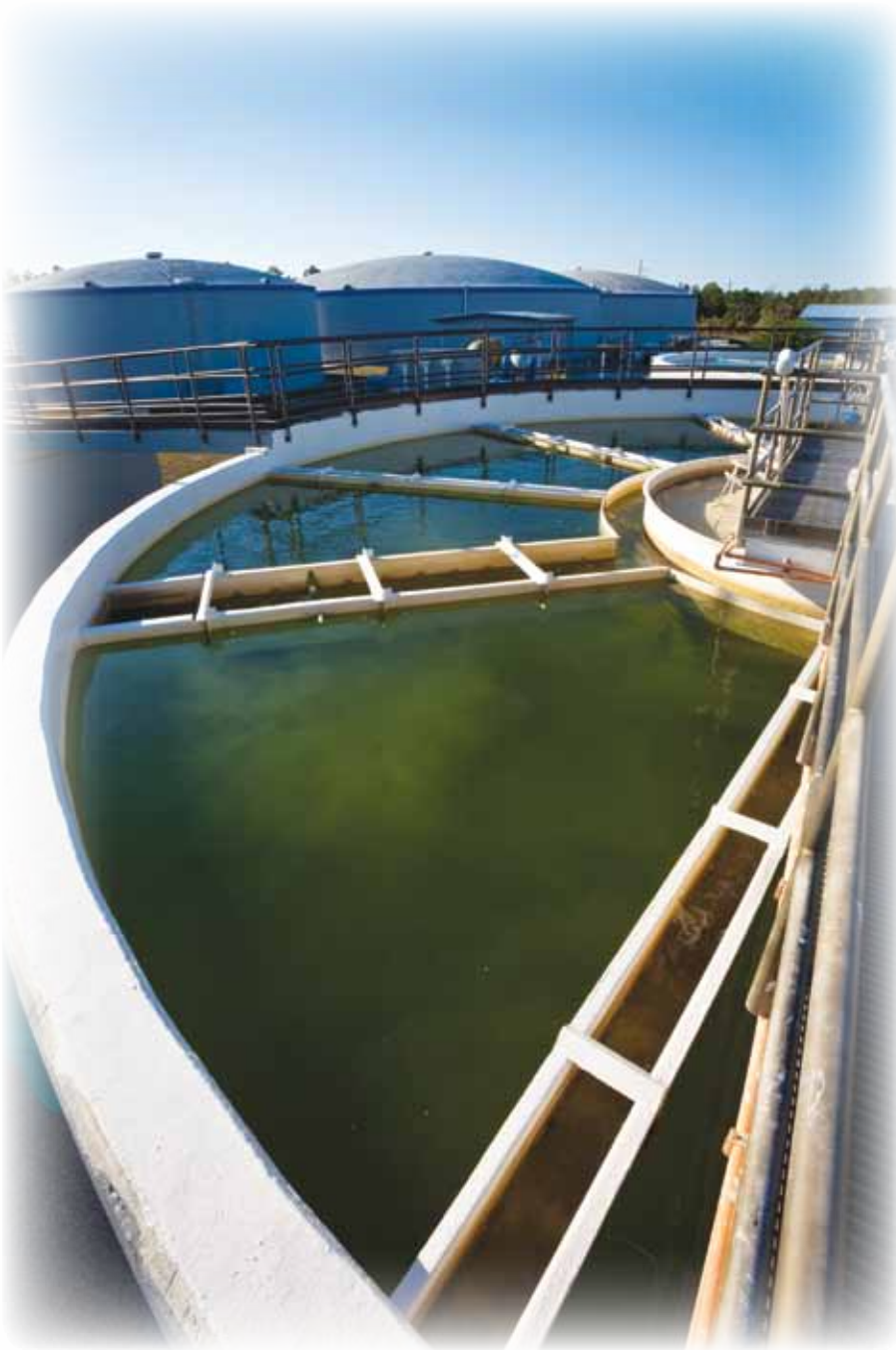


## ***Heavy Metal Precipitation***



*Today's effluents are required to be free of both organic and inorganic compounds. The importance of reducing and removing heavy metals is more important than ever. Heavy metals are not only toxic to aquatic life in general, but to the environment as a whole and, can also hinder the biological activity in today's treatment processes.*

*Coyne Environmental is uniquely positioned with the most comprehensive collection of treatment options available to assist the municipal and industrial water and wastewater treatment industries in meeting your specific treatment goals.*



MUNICIPAL & INDUSTRIAL WASTEWATER TREATMENT

## Heavy Metal Precipitation

The technology of reducing and removing heavy metals from waste process flows has been around for decades. Many of those older technologies utilize hazardous chemicals to achieve specific treatment goals. Today's challenge is the reduction of heavy metals to all-time lows without imparting further environmental damage.

While the chemistries of yesterday are still available, and continue to be used in today's market, there are many new treatment options available that are less toxic to the environment, while providing optimal treatment. Often, to achieve the lower limits of today's effluent criteria, combinations of several treatment processes are required including pH adjustments, oxidizers, coagulants, and polymers — in conjunction with the metal precipitants. Having all of these technologies available makes Coyne Environmental a valuable partner in determining the most cost-effective treatment program for your requirements.

Whether your needs are atmospheric or aqueous treatments, whether you discharge directly to the environment, or pretreat and discharge to a POTW, Coyne Environmental Services can help determine the best treatment program available.

To speak with one of our Chemical Applications Specialist, or to schedule a product evaluation, or to obtain additional product information, please feel free to contact our offices at: **215-785-3000**.

Or visit us at: [www.coyneenvironmental.com](http://www.coyneenvironmental.com)

### PRODUCTS

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Aluminum Chlorhydrate	Hydropolysulfides
Calcium Polysulfide	Inorganic / Organic Blends
Carbon ( <i>Powdered / Granular</i> )	Oxidizers / Reducers
Dimethyldithiocarbamate ( <i>DTC</i> )	Polyaluminum Chloride
Ferrous Chloride	Polythiocarbamate
Ferrous Sulfate	Sodium Hydrosulfide
Hydrazine Hydrate	Sodium Polysulfide

### APPLICATIONS

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- Groundwater & Soil Remediation Sites
- Frack Water Treatment
- Heavy Metals Removal
- Increase Filter Runs
- Reduced Alkalinity Demands
- Reduce Effluent Toxicity
- Reduced Sludge Production

### HEAVY METALS REMOVAL

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Cadmium ( <i>Cd</i> )	Lead ( <i>Pb</i> )
Cobalt ( <i>Co</i> )	Manganese ( <i>Mn</i> )
Copper ( <i>Cu</i> )	Mercury ( <i>Hg</i> )
Chrome ( <i>Cr</i> )	Nickel ( <i>Ni</i> )
Chromium ( <i>Cr</i> )	Silver ( <i>Ag</i> )
Gold ( <i>Au</i> )	Tin ( <i>Sn</i> )
Iron ( <i>Fe</i> )	Zinc ( <i>Zn</i> )

**Coyne Chemical Environmental Services provides practical, economical, and user-specific solutions to virtually any municipal or industrial water and wastewater treatment challenge.**