BRENNTAG

ConnectingChemistry

WATER TREATMENT NORTH AMERICA

Heavy Metals Precipitation

www.brenntagwater.com

Heavy Metals Precipitation

Water can become contaminated with many dissolved metals – lead, zinc, copper to name just a few. Brennfloc metals precipitants effectively and safety precipitate these contaminates allowing for removal by clarification methods.

Traditional metal removal methods are hydroxide or inorganic sulfide precipitation. Each can be effective but have many limitations and disadvantages.

Metals are dissolved in water as a result of:

- Pre-treating/preparing metal surfaces
- Alloying/forming metals
- Electro deposition on both metallic and ABS plastic substrates
- A contaminant/by-product of a process
- Corrosion
- Naturally occurring

Disadvantages of hydroxide precipitation:

- Metals can re-solubilize
- Creates voluminous sludge
- Various pH points may be needed
- Limited in meeting newer discharge limits

Disadvantages of inorganic sulfide precipitation:

- H_2S gas potential
- Sulfur smell
- Precipitate hard to settle/coagulant needed
- Environmental discharge concerns

Advantages of Brenntag's organic sulfide precipitation products:

- Can complex metals below pH 7.0
- Creates less, more compact sludge than hydroxide
- Not pH dependent
- Will not re-solubilize
- Eliminates environmental and handling concerns

Brenntag's extensive line of metal precipitants can meet the stricter wastewater discharge limits unachievable by hydroxide precipitation and without the environmental concerns of using inorganic sulfides. Contact your local Brenntag representative for assistance today.

Heavy Metal Precipitants

PRODUCT	APPLICATION	PRIMARY USES	ENVIRONMENTALLY FRIENDLY
Brenntag HMP-FHH2	All purpose chelated heavy metal precipitant zinc and nickel	All heavy metals	Yes
Brenntag AETFLOC 5005	Specialty for lead removal	Lead removal	Yes
Brennfloc JB-100	All purpose chelated heavy metal precipitant	All heavy metals	Yes
Brenntag HMP 2000	Good all purpose product	All heavy metals	No
Brenntag TR	Original polythiocarbonate product	All heavy metals except nickel	Yes
Brennfloc TR-10	Metal precipitant blend for mixed metal wastes	Mixed metal wastes including nickel	Yes
Brennfloc TR-12	Metal precipitant with coagulant added – oily wastes, membrane filtration	All heavy metals except nickel	Yes
Brennfloc TR-42	Low unit cost precipitant	All heavy metals except nickel	Yes
Brennfloc TR-4410	Metal precipitant with coagulant blends	All heavy metals except nickel	Yes
Brennfloc TR-4210	Metal precipitant with coagulant blends	All heavy metals except nickel	Yes
Brennfloc TR-100	High activity product; lowest total use cost	All heavy metals except nickel	Yes
Brennfloc 4A	Specialty precipitant for use at pH as low as 4	All heavy metals	Yes
Brennfloc P4	Excellent for nickel removal and other metals	Nickel	No
Brennfloc 1830	Specialty precipitant for one-step removal of hexavalent chrome	Hexavalent chrome	Yes
Brennfloc 1942	Designed for nickel removal	Nickel	No

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