

# PRODUCT INFORMATION

### WATER SPECIALISTS TECHNOLOGIES LLC

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## **TR-21 PRECIPITANT**

TR-21 is a proprietary formulation designed as a non-toxic precipitant of heavy metals from industrial process wastewaters, including metals from chelated/complexed environments. It is a powerful replacement for commonly used toxic DTC/carbamate-type products. When compared to such products, tests show that TR-21 has equivalent precipitating activity at a similar dosage.

#### PRINCIPAL USES:

TR-21 has been formulated to remove heavy metals from industrial process waters including effluents of plating baths, etching solutions, and rinses containing soluble metals. TR-21 will reduce the concentration of most metals, including the following, to acceptable levels within regulatory requirements: AG, AU, CD, CO, CU, FE, HG, MN, NI, PB, and ZN.

#### **PHYSICAL DATA:**

APPEARANCE: Yellow Liquid
ODOR: Slight sulfur odor
SPECIFIC GRAVITY: 1.03 – 1.04

PH <12.5

#### HANDLING AND STORAGE:

As with any chemical, this product should be handled with reasonable care. See the Material Safety Data Sheet for complete handling information. Avoid contact with skin, eyes and clothing. Do not take internally.

#### DOSAGE:

Bench scale jar testing will help determine the optimum dosage. Ask for our information bulletin on performing such testing. To optimize the dosage, oxidizers present in solution must be destroyed (reduced) prior to dosing TR-21. In full-scale installations, the dosing of TR-21 is most efficiently accomplished with an automatic feed control system. Your Water Specialists representative will make dosage recommendations to apply to your application.

#### **FEEDING:**

Adjust the solution pH to above 8.0 prior to adding TR-21. The metal precipitation reaction is almost instantaneous. For some applications, the addition of an iron or aluminum coagulant will help the coagulation and clarification operations.

#### **TECHNICAL ASSISTANCE:**

Your Water Specialists representative is available to assist you with any water treatment problems that may arise.