

# TRAMFLOC, INC.

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## Technical Information Bulletin TRAMFLOC® 901 PRECIPITANT

Tramfloc® 901 is a proprietary formulation designed as a precipitant of heavy metals from industrial process wastewaters, including metals from chelated/complexed environments. This formulation is composed of sodium dimethyl dithiocarbamate.

### **PRINCIPAL USES:**

Tramfloc® 901 has been formulated to remove heavy metals from industrial process waters including effluents of plating baths, etching solutions, and rinses containing soluble metals. Tramfloc® 901 will reduce the concentration of the following metals to acceptable levels within regulatory requirements: AG, AU, CD, CO, CU, FE, HG, MN, NI, PB, and ZN.

### **PHYSICAL DATA:**

APPEARANCE:	Yellow-Green Solution
ODOR:	Amine
SPECIFIC GRAVITY:	1.10
PH	9.0-12.0

### **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 Tramfloc® 901. In full-scale installations, the dosing of Tramfloc® 901 is most efficiently accomplished with an automatic feed control system.

### **FEEDING:**

Adjust the solution pH to above 8.0 prior to adding Tramfloc® 901. The metal precipitation reaction is almost instantaneous. For some applications, the addition of an iron coagulant (ferrous sulfate or ferric chloride) will help the coagulation and clarification operations.

# TRAMFLOC® 901 METAL PRECIPITANT

## Percent Dry Solids Retained in Filter Cake

Precipitant	Chromium	Copper	Nickel	Zinc	Cadmium
Tramfloc® 901	35	25	26	42	45
Na <sub>2</sub> S	8	23	19	25	29
NaOH	15	18	3	18	21

**Dosages required to precipitate one pound of metal on a 100% active basis.**

Metal

Tramfloc® 901, 907, # active

Cd <sup>2+</sup>	2.5
Co <sup>2+</sup>	4.7
Cr <sup>6+</sup>	3.8
Cu <sup>2+</sup>	4.4
Fe <sup>3+</sup>	7.5
Hg <sup>2+</sup>	1.4
Ni <sup>2+</sup>	4.8
Pb <sup>2+</sup>	1.3
Zn <sup>2+</sup>	4.3
Ag <sup>1+</sup>	1.9

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