

Technical Data Sheet (TDS)

Product Name: Heavy Metal Remover

Product Code: CHR-3000

Revision Date: 2025-03-18

1. Product Description

CHR-3000 is a high-efficiency heavy metal precipitant widely used in industrial wastewater treatment. It offers exceptional chemical stability, ensuring consistent performance across a wide range of conditions. Designed for operational ease, CHR-3000 is easily dosed and integrates smoothly into automated systems, reducing operational complexity.

With its broad-spectrum reactivity, CHR-3000 effectively targets a wide variety of heavy metals—including Cu, Ni, Ca, Pb, Zn and Hg - making it a highly versatile solution for multi-metal wastewater streams. Its strong reactivity allows it to disrupt even stable chelate metal structures, achieving precipitation where conventional agents (lime, metal hydroxide, base etc.) fail.

The resulting metal complexes form dense, stable precipitates with very low solubility and excellent filterability, ensuring reliable removal and minimizing re-dissolution risks.

2. Application

CHR-3000 is specifically formulated for the removal of dissolved heavy metal ions from industrial wastewater. It effectively precipitates metals such as mercury (Hg), copper (Cu), cadmium (Cd), lead (Pb), and others. It is widely used in wastewater treatment systems in electroplating, mining, electronics, and chemical industries. Electroplating wastewater treatment.

- Metal finishing industry
- Printed circuit board (PCB) manufacturing
- Battery production wastewater
- Chemical industry wastewater
- Mining and metallurgy wastewater

3. Product Features

- Highly effective removal of heavy metals such as Hg^{2+} , Cu^{2+} , Cd^{2+} , Pb^{2+} , Ni^{2+} , Zn^{2+} , etc.
- Forms stable and low-solubility metal complexes
- Fast reaction kinetics and efficient precipitation

- Water-soluble and easy to dose
- Operates effectively over a wide pH range of 6-10
- Reduces heavy metal concentrations to meet discharge regulations
- Environmentally friendly and non-toxic formulation

4. Typical Properties

Property	Value
Appearance	Light yellow to yellow liquid
pH (1% solution)	9.0 - 11.0
Density (20°C)	1.05 - 1.20 g/cm ³
Solubility	Fully soluble in water

Note: The above data are typical values and not product specifications.

5. Usage & Dosage

Typical dosage: 2-3 times of target heavy metal ions concentration present. Dosage depends on wastewater composition. Laboratory jar testing is recommended for optimal results.

6. Packaging

- 25 kg / 200 kg plastic drums / 1000L IBC Tote
- Customized packaging available upon request

7. Storage & Handling

- Store in a cool, dry, and well-ventilated area
- Avoid freezing and direct sunlight
- Shelf life: 18-24 months in original unopened packaging

8. Safety & Environmental Information

- Non-toxic and biodegradable formulation
- Use standard industrial safety precautions during handling
- Refer to Safety Data Sheet - SDS for detailed safety and handling instructions

9. Compliance

Complies with local and international environmental regulations for industrial wastewater treatment.