# COD Degrader (Catalyzed Oxidant Blend)

CAS No. Mixture | HS Code 3824.99

This COD degrader is a catalyzed oxidant blend based on persulfate and chlorite chemistry that attacks refractory organics left after biological treatment — humics, surfactants, dye residues and soluble polymers that resist biodegradation and keep effluent COD above discharge limits. Dosed at 0.5–3 g/L depending on the recalcitrant COD fraction, the activated blend generates radical oxidants that break these molecules into biodegradable or fully oxidized fragments within 30–120 minutes of reaction time.

It is a rapid-response treatment route: where the biology is already maxed out and the permit deadline is near, chemical COD polishing delivers same-day compliance, and for plants considering Fenton chemistry it avoids the iron sludge and acidic pH adjustment that process requires. Reaction is typically run at ambient-to-mild pH with a proprietary catalyst; a bench jar test on your effluent fixes dose, contact time and pH setpoint before full-scale dosing.

## Technical Specifications

| Parameter | Unit | Value |
|---|---|---|
| Active oxidant content | % | ≥ 90.0 |
| COD removal (refractory, bench) | % | 40–80 (wastewater dependent) |
| Reaction time (typical) | — | 30–120 min |
| Recommended dose | g/L | 0.5–3.0 |
| pH (1% aqueous solution) | — | 6.0–9.0 |
| Water insolubles | % | ≤ 0.5 |
| Appearance | — | White to off-white powder |

## Applications

- Emergency compliance when final effluent COD exceeds discharge limits
- Polishing of bio-treated effluent with a refractory COD fraction at mid-size plants
- Pre-treatment that cracks recalcitrant organics into biodegradable fragments ahead of a biological stage
- Dye and surfactant-rich effluent oxidation where biological routes stall

## Packaging & Shipping

Composite bag with PE inner liner — 25 kg

## Storage & Shelf Life

Store sealed in a dry, cool, ventilated warehouse away from heat, organic material, acids and reducing agents. Shelf life 12 months in original sealed packaging.

## Transport Classification

Oxidizing solid — shipped per IMDG Code Class 5.1 with the exact UN number and packaging determined by the formulation and its dangerous-goods certification. Confirm classification and documents for your lot before dispatch.

## Safety Notes

Oxidizer — keep away from combustible and organic material, acids and reducing agents. Dust may irritate eyes and the respiratory tract. Wear gloves, goggles and a dust mask when handling. MSDS available on request.

Typical values for reference only. Final specifications are confirmed per batch Certificate of Analysis (COA) issued with each shipment. This document does not replace the MSDS — request it via the inquiry form.

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