



## ESWW – WASTE WATER TREATMENT - PETROCHEMICALS

**ESWW** is a natural formulation for use in treating wastewater containing refinery and petrochemical waste. **ESWW** degrades extra cellular polymers (which cause foaming) and suppress the growth of the filamentous organisms by affecting the structure of the filaments.

### BENEFITS OF ESWW:

- Removes oil deposits and prevents scum formation in holding tanks, sewers, drains and aeration basins
- Reduces unpleasant odour emissions associated with oily waste
- Increases the efficiency of overloaded systems
- Reseeds after plant upset
- Enhances organic removal efficiency
- Lowers effluent BOD, COD, and TSS
- Accelerates the start-up of new systems and aids recovery after upsets
- Improves cold weather operation
- Aids nitrification by lowering toxicity
- Improves effluent quality
- Reduces sludge production
- Protects the environment and lowers operating costs by reducing chemical consumption
- Competes against filaments

### TYPICAL APPLICATION RATES:

Flow Rate	Initial Dosage	Maintenance**
Up to 1,000 gpd	½ lb. / day for 3 days	½ lb. / week
Up to 5,000 gpd	½ lbs. / day for 3 days	1lb. / week
Up to 20,000 gpd	5 lbs.*	1½ lb. / week
Up to 50,000 gpd	8 lbs.*	2 lb. / week
Up to 250,000 gpd	5 lbs.*	¼ lb. / day
Up to 500,000 gpd	25 lbs.*	½ lb. / day
Up to 1 mgd	50 lbs.*	1 lb. / day
Up to 5 mgd	50 lbs. / mgd*	1 lb. / mgd / day
Up to 12 mgd	50 lbs. / mgd*	¾ lb. / mgd / day
Up to 100 mgd	30 lbs. / mgd*	½ lb. / mgd / day

**\* Spread this initial dosage out over the course of 10 days.**

**\*\* Add as regularly as possible. If it is required to miss one day, add that day's product with the next dosage.**

**\*\*\* Application rates will vary with flow rates, retention times and system variations. The rates above are for a typical, well maintained system.**

**ACTIVATED SLUDGE SYSTEMS:**

For extended aeration, contact stabilization, step aeration, oxygen activated sludge, etc., application rates are based on the average daily flow rate to the aeration basin, excluding the return sludge stream.

**TRICKLING FILTER & ROTATING BIOLOGICAL CONTACTORS:**

Application rates are based on the average daily flow rate to the filter or contactor, excluding any re-circulating process stream.

**LAGOON SYSTEMS:**

- For aerated lagoon systems, the application rates are based on the average flow to the lagoon
- For facultive lagoon systems, the application rates are based on the lagoon surface area

<b>Day 1 through Day 5</b>	<b>2 0 lbs. / acre / day</b>
<b>Day 6+</b>	<b>2 lbs. / acre / week</b>

- For anaerobic lagoons, the application rates are based on the total volume of the anaerobic lagoon

<b>&lt;100,000 gallons</b>	<b>1 lb. - 2x / week / 5,000 gal.</b>
<b>&gt;100,000 gallons</b>	<b>½ lb. - 1x / day / 5,000 gal.</b>

**\*\*For lagoons in cold climates, commence program when the water temperature is a least 50F.**

**SPECIFICATIONS:**

**Form:** Free-flowing granular powder

**Color:** Beige

**Nutrient Content:** Biological nutrients & stimulants

**Plate Count:**  $5 \times 10^9$

**pH:** 6.5 – 7.5 (re-hydrated state)

**Bulk Density:** 0.6 - 0.8 gr/cc

**Water Solubility:** Moderate - disperses in water

**Flash Point:** N/A

**Sensitive to static discharge:** Not sensitive

**Stability:** Max loss 1 log/yr

**SAFETY:**

**ESWW** is produced in accordance with NOSB (National Organic Standards Board) guidelines. The materials used in the production process are derived from naturally occurring and sustainable sources and are consistent with organic principals and the National List of Allowed Substances. **ESWW** does NOT contain synthetic chemicals, animal components, and animal by products, manure or manure by-products. **ESWW** is environmentally safe and is not harmful to animals, plants and humans.

**COMPLIANCE:**

Fully complies with EPA Toxic Substance Control Act (TSCA) and the rules, orders and regulations promulgated there under including:

- a) Sections 4, 5, 6 & 7; Title 40 Chapter 1, 707.20 thru 707.75;
- b) 40 CFR Sections 704.3. 710.2(e) and 720.3(c); and
- c) Sections 5 and 13, reference 42FR64583
- d) Does not contain marine pollutants as defined in 49 CFR 171.8.

**STORAGE & HANDLING:**

Do **NOT** freeze. Store in a cool location away from direct sunlight - No special handling required

**PACKAGING:**

10 kg. (22.2 lb.) HDPE pail – 250 gram (8.8 oz.) Water Soluble Pouches  
10 kg. (22.2 lb.) HDPE pail – bulk  
50 kg. (110 lb.) Fibre Drum