



ESSR - SLUDGE REDUCER

ESSR is a natural product, formulated for use in treating municipal waste water (activated sludge) and will effectively control grease & foaming, improve settling and reduce odour. **ESSR** is effective in degrading the biodegradable components in organic matter i.e. proteins, fats, carbohydrates and select hydrocarbons under both aerobic and anaerobic conditions as well, it remains effective during cold winter months.

USING ESSR IN AN ACTIVATED SLUDGE SYSTEM:

ESSR reduces the sludge produced in any type of secondary biological treatment system by improving the degradation of organic material and converting it to "dead bugs" that weigh less and occupy less space.

EXPECTED IMPROVEMENTS WHEN USING ESSR:

- High rate system with no primary clarifier – 25% to 35% reduction in dry solids produced
- Long retention time (greater than twenty four hours in aeration) with primary clarifier - 10% to 15% reduction in total dry solids
- Long retention time (greater than twenty four hours in aeration) without primary clarifier - 20% reduction in dry solids

TYPICAL APPLICATION RATES:

| Flow Rate | Initial Application | Maintenance |
|-------------------|------------------------|-------------------|
| Up to 1,000 gpd | ½ lb. / day for 3 days | ½ lb. / week |
| Up to 5,000 gpd | ½ lb. / 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

Notes:

1. 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
2. Dosage rate will vary with flow rates, retention times and system variations. The rates above are for a typical, well maintained system

SPECIFICATIONS:

Form: Free-flowing granular powder

Color: Brown

Nutrient Content: Biological nutrients & stimulants

Plate Count: 5×10^9

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:

The materials used in the production process are derived from naturally occurring and sustainable sources. **ESSR** is non-caustic, non-corrosive, non-flammable and environmentally safe. **ESSR** 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 lb.) HDPE Pail - 250 gr. (8.8oz.) water soluble pouches

10 kg. (22 lb.) HDPE Pail - Bulk

110 lb. Fiber Drum - Bulk