



INCORPORATED



Injection Ready 60% QRS-PL™ Potassium Lactate **Quick Release Substrate** **For Aquifer Remediation and Conditioning**

Terra Systems "*injection ready*" **60% QRS™-PL** Potassium Lactate Quick Release Substrate is added to the groundwater to rapidly generate reducing conditions and provide the necessary carbon and hydrogen to support native or introduced microorganisms (*Dehalococcoides*) for the biodegradation of chlorinated solvents such as tetrachloroethene (PCE) and trichloroethene (TCE) to innocuous end products including ethene and ethane.

Key Communication Points

- 60% QRS™ -PL potassium lactate is an inexpensive, soluble, food grade substrate
- Often used in areas of Florida and California, which have restrictions on the amount of sodium (such as sodium lactate) that can be injected.
- It rapidly establishes reducing conditions to support the biodegradation of PCE, TCE, TECA, DNAPL (Sabre Project), Perchlorate, TCA, Cr⁶⁺, TNT, Uranium and Nitrate
- It is one of the most efficient electron donors available
- Provides 60% fermentable carbon
- 100% biobased content
- Its miscibility in water and low viscosity allow for effective transport with groundwater; enhancing subsurface radius of influence and minimizing the number of injection points.
- It arrives as a homogenous ***injection ready substrate***, which results in lower field labor costs
- Proven effective at dry cleaners, semiconductor manufacturers, fabricators, manufacturing firms and military installations, that use and clean metal parts (air conditioners, dishwashers, etc.).

Table I: 60% QRS™ -PL Potassium Lactate Specifications

Ingredient	Percent	Description	Benefit
Potassium lactate	60%	Rapidly biodegradable soluble substrate; miscible in water	Fast release source of carbon and hydrogen Rapidly generates reducing conditions High radius of influence Provides 60% fermentable carbon
pH	6.5 - 7	6.5 - 7	Optimum microbial activity
Organic Carbon (wt%)	60%		Provides 60% fermentable carbon
Biobased Content	100%		

Packaging: 5-gallon buckets, 55-gallon drums, 275-gallon IBC totes or bulk tankers.



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