Stepps
Cripps Corner
Staplecross
East Sussex
TN32 5RY

Tel: +44 (0)1580 831223
Fax: +44 (0)1279210127
sales@goctechnologies.co.uk

Bio-solids Odour Control with QuikSoil® 2900

QuikSoil® 2900 is an effective odour management tool for use in transport and off-loading of sewage bio-solids. In situations where bio-solids must be trucked through habited areas or where odour at the off-loading site is a problem, 2900 can provide meaningful reductions (60% to 80%) in odour with a single application prior to exiting the wastewater facility.

QuikSoil® 2900 contains no perfumes, oils, or fragrances. QuikSoil® 2900 is composed entirely of enzymes and co-enzymes. An immediate odour and emission reduction of 50% is typically achieved with a single application, with an additional deodorization of 10% to 30% occurring over 1 to 5 hours. 2900 may also be applied to truck and tire surfaces for additional deodorization.

Because a substantial portion of the deodorization occurs immediately, QuikSoil® 2900 is also helpful in controlling odour and emission levels inside the press room or building. QuikSoil® 2900 is available in a standard formulation designed to impact, ammonia and amines, sulphides, and VOC's. In situations where a significant portion of the problem is either ammonia/ amines or sulphides, QuikSoil® 2900 can be weighted for additional impact. (QuikSoil® 2900A for ammonia and amines, QuikSoil® 2900S for sulphides.)

QuikSoil® 2900 requires no special handling other than avoidance of freezing. 2900 is totally bio-degradable and completely environmentally friendly. Spills may be washed away with water, and accidental discharge into local waterways is not harmful to wildlife and will not increase BOD or COD levels in the water.

The anticipated reduction in odour levels is based on 3rd party testing of specific gases and by olfactometer ratings of D/T's (dilutions to threshold).
Independent tests have shown an average 80% reduction in ammonia and amines, an 85% reduction in reduced sulphur compounds, greater than 85% reductions in VOC's, and 70 % to 95% reductions in D/T's.

Applying QuikSoil® 2900

The dosage rate for QuikSoil® 2900 ranges from 100 to 180ml per wet ton of biosolids exiting the press or centrifuge, depending on intensity and offensiveness of the odour. Water is added to the QuikSoil® 2900 to provide enough liquid to facilitate mixing. Typically, 2.5 to 3.0 litres of water are added to each wet ton along with the 2900. This amounts to 2.5 to 3.0 kg's of additional weight per wet ton, an increase of only one third of one percent. The water only acts as a carrier. The exact dilution should be determined by the limits of the application equipment and method (pump output and nozzle flow rates).

QuikSoil® 2900 is applied as the biosolids exit the belt press or centrifuge, or as they are loaded for transport. The application location should be the point which allows the maximum biosolids surface area to be contacted by the QuikSoil® 2900 and water mix.
We recommend the use of nylon nozzles where possible to avoid corrosion problems. We use a nozzle with a flow rate of 8 litres per hour at 8 bar. Usually 3 to 4 nozzles are spread across the conveyor moving the solids, and one or more nozzles may be placed around the room.

A simple carbonator pump is recommended along with a manual pressure gauge which should be set to 8 bar. We typically use a carbonator pump with a ¼ horsepower motor and a minimum flow rate of 40 litres per hour. If the number of nozzles needed to meet the pump's minimum flow rate exceeds the number of nozzles needed for the application, the excess flow may be channelled back to the supply tank.
If desired, the pump may be wired into the start-up of the press or centrifuge such that the deodorization system automatically starts and stops with the process equipment. Additional options are various zones of delivery, separate water and mixing tanks, and different flow rate nozzles in areas other than the conveyor.

QuikSoil® 2900 will not perform on biosolids treated with lime or any other alkaline stabilization until the pH of the biosolids returns to 8.2 or lower.