

# Surface Water Treatment Device Performance Declaration

## Testing carried out according to British Water Code of Practice

**Manufacturer:** SDS Limited, Clearwater House, Castlemills, Biddisham, Somerset, BS26 2RE

**Treatment Device Name:** Aqua-Xchange

**General Description:** Aqua-Xchange is a granular material that can be deployed in a number of stormwater treatment applications. It is designed to capture and retain soluble pollutants, such as copper & zinc, and some fine particles. The test calculations are based on 0.5m<sup>2</sup> of Aqua-Xchange at 250mm depth treating the runoff from an impermeable catchment area of 50m<sup>2</sup>.

**Envisaged Application:** Aqua-Xchange will be used in devices where stormwater can percolate through the material, allowing sufficient contact time for the pollutants to be captured. Typically, this will be in filter drains, dry swales, bio-remediation devices, infiltration basins & catch pits. Gross sediment will be removed in a sediment removal device before the stormwater is passed through the Aqua-Xchange.

**Pollutants captured:** Soluble Copper & Soluble Zinc. Other dissolved metals will also be captured but the capture efficiency for those was not measured.

**Treatment device capacity:** 0.125 m<sup>3</sup>

**Treatment flow rate:** 0.375 l/s

**Connectable area:** 50 m<sup>2</sup>

**Pollutant retention flow rate:** 0.556 l/s

**Maximum capacity flow rate:** 1.11 l/s

**Device head loss (at Treatment flow rate)** <5mm

**Device head loss (at Maximum Capacity Flow Rate)** <5mm

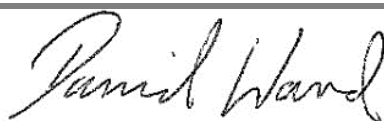
**Zinc capture efficiency:** 99.8%

**Zinc retention efficiency:** 99.6%

**Copper capture efficiency:** 99.5%

**Copper retention efficiency:** 100%

**Testing laboratory:** Analytical Centre at Thornton,  
University of Chester  
Chester, UK.



**Dr David Ward**  
Leading Research Fellow

**Witnessing party:** Intertek,  
The Wilton Centre,  
Redcar, UK.

**Dated:** March 29<sup>th</sup> 2018