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Diquat & Paraquat in Soil

Technical Data Sheet

Analytes:	Diquat, Paraquat
Scope:	Soil
Method Description:	A homogenized portion of sample is refluxed using sulfuric acid. An aliquot is cleaned using silica column solid phase extraction (SPE) to isolate the compound(s) of interest. The cleaned extract filtered and analyzed using hydrophilic interaction (HILIC) ultra-performance liquid chromatography, tandem mass-spectroscopy (UPLC-MS/MS). Analyte quantification uses a multi-level calibration. Batch QC includes a matrix spike fortified with the tested analytes. Multiple MS-MS (MRM) transitions or alternate chromatography may be used for result confirmation. Isotopic analogue(s) are used to correct for variations in analyte recovery or instrument response due to matrix type.
Limit of Detection:	0.02 ppm (ug/g)
Sample Size Requirements:	A minimum of 50 grams of homogeneous sample is needed for analysis. If the sample will be received without homogenization 500 grams will be required to allow for processing and additional fees will be assessed.
Turn Around Time:	7 business days; Rush service (3-5 days) is available. Turnaround times may be subject to change dependant on analytes detected, additional verification may be required.
Method Reference(s):	J. AOAC Int. Vol. 76, No. 6, pp. 1323-28 modified for LC/MS/MS, Journal of Chromatography A, 1196-1197 (2008)
Additional Information:	The LOQs may be raised due to matrix interferences; if specific LOQs are required, please make arrangements prior to sample submission.