



**Certificate of Analysis**

Client: Contact Organic      Certificate of Analysis # COA 2022-765  
Sample Description: Herbicide Components      Report Date 5/30/2022  
Test Date: 5/27/2022

| Samples:   |                                 |               |                         | Results:           |                  |                       |                       |
|------------|---------------------------------|---------------|-------------------------|--------------------|------------------|-----------------------|-----------------------|
| Sample ID# | Sample Description/<br>UPC Code | Lot #         | Sample Volume /<br>Mass | Paraquat<br>(ng/g) | Diquat<br>(ng/g) | Chlormequat<br>(ng/g) | Glufosinate<br>(ng/g) |
| S9533      | Contact Organic Boost           | COT2020L03001 | 1 Qt.                   | ND                 | ND               | ND                    | ND                    |
| S9534      | Contact Organic Terminator 2    | COT2020L09002 | 1 Qt.                   | ND                 | ND               | ND                    | ND                    |

**Methods:**  
Sample Analysis: Fit for Purpose HRI Method "Obelisc 3 Quats+Gluf Detection by LC-MS/MS"  
Sample preparation employed a modification of the method described in: Dasharath Oulkar, Raviraj Shinde, Zareen Khan and Kaushik Banerjee. 2019 "High throughput residue analysis of paraquat and diquat involving hydrophilic interaction liquid chromatographic separation and mass spectrometric determination." Food Additives & Contaminants: Part A, DOI: 10.1080/19440049.2018.1547424.  
LC-MS/MS analysis employed a modification of the method described in Anna Baue, Jens Luetjohann, Sascha Rohn, Jürgen Kuballa, Eckard Jantzen. 2018. "Development of an LC-MS/MS Method for Simultaneous Determination of the Quaternary Ammonium Herbicides Paraquat, Diquat, Chlormequat, and Mepiquat in Plant-Derived Commodities." Food Analytical Methods, <https://doi.org/10.1007/s12161-018-1201-6>  
Limit of Quantitation (LOQ) for this method is 10 ng/g.  
ND = Not detected  
D = Detected, but below the limit of quantification

Released on Behalf of Health Research Institute

John Fagan, Ph.D, Chief Scientific Officer

ISO/IEC 17025:2017  
Accreditation # 92657

