**IMIDACLOPRID ULTRA LOW VOLUME SOLUTIONS**

 \*582/UL/M-

1. **Sampling**. Take at least 1L
2. Identity tests. As for Imidacloprid suspension concentrates 582/SC/M2/2 CIPAC K, page 74. An additional GC-MS identity test is proposed for UL formulations as outlined below:

The following instrument parameters were utilized in the GC/MS analysis:

|  |  |
| --- | --- |
| Oven Program | 50ºC for 2 minutes10ºC/min to 250ºC for 5 min10ºC/min to 325ºC for 10min |
| Run time | 44.5min, Imidacloprid ret. time ca 20.2 min |
| Inlet Temperature | 325ºC |
| Injection Volume | 1µL |
| Split Injection – Split flow | 100mL/min |
| Flow velocity | Helium at 45cm/s |
| Column | Agilent HP-5ms: 30m x 250µm x 0.25µm |
| MSD Transfer Line | 335ºC |
| MS Source | 230ºC |
| MS Quad | 150ºC |
| Solvent Delay | 5min |

Imidacloprid is identified in the standard and sample solution with a clear peak which matched the NIST library search for imidacloprid, containing the major ion fragment of 211 AMU.

1. **Imidacloprid**. As for Imidacloprid suspension concentrates 582/SC/M2/2 CIPAC K, page 74 except
2. An increase in run time between injections from 10 mins to 30 minutes is required. This ensures all formulation components are eluted prior to the next injection.

**Figure 1. Imidacloprid standard solution analysis – GC/MS
**

**Figure 2. Formulation Analysis for Imidacloprid – GC/MS
**