# MILWAUKEE TOOL

**13135 West Lisbon Road • Brookfield WI 53005 • 262-781-3600**

To Whom It May Concern,

Milwaukee®, in partnership with Industrial Hygiene Sciences, LLC, has conducted testing on the Milwaukee M18™ FUEL™ 3-in-1 Backpack Vacuum (0895-20) with the kitted HEPA Filter (49-90-1961) paired with the M18™ FUEL™ 1-9/16" SDS Max Rotary Hammer (2717-20), 16" SDS Max Bull Point Chisel (48-62-4250), and 1-1/8" SDS Max Chisel Boot (5318-DE). Results show that the user will be below the Permissible Exposure Limit (PEL) as described by OSHA 29 CFR 1926.1153 when using the above combination, assuming it is used in accordance with manufacturer's instructions. Testing results and procedures are outlined below:

| Units Tested | Average Sample Duration | % Silica (Quartz) in Sample | Average Respirable Crystalline Silica Concentration (µg/m³) | OSHA PEL in 1926.1153 (µg/m³) |
|---|---|---|---|---|
|  | 60 minutes | N/A | 3.3 µg/m³ TWA | 50 µg/m³ |

N/A= Not available. The percentage of silica could not be quantified as the weight gain on the filter was too low.

***Additional Test Information***

- The application was performed using a Milwaukee M18™ FUEL™ 3-in-1 Backpack Vacuum (0895-20) with the M18™ FUEL™ 1-9/16" SDS Max Rotary Hammer (2717-20), 16" SDS Max Bull Point Chisel (48-62-4250), and 1-1/8" SDS Max Chisel Boot (5318-DE).
- Each trial consisted of five 10-minute runs of breaking with short rests in between each run.
- Concrete Blocks were poured from a 5000 PSI concrete mix into 4' X 4' X 8' frames.
- After each run, the HEPA Filter was knocked out into a bin. The vacuum tank was emptied at the end of the final run.
- A new HEPA filter was used for each new trial.
- The Vacuum was turned to high speed.

***Sample Method***

- Samples were collected on 3 piece 37 mm diameter preweighed PVC filter mounted in a BGI GK2.69 respirable dust sampler, run at 4.2 lpm and connected to a GilAir Plus air sampling pump. The flow rate through the sampling train was measured using a Mesa Labs Defender 520 calibrator before and after each Trial. A field blank was submitted with the batch of samples.
- The samples and blank were analyzed using OSHA ID-142 by the Wisconsin Occupational Health Laboratory, an AIHA Accredited laboratory. The sampling method used meets the definition of respirable crystalline silica in 1926.1153 (a) and Appendix A of the OSHA Respirable Crystalline Silica Standard (1926.1153).
- Work was performed in a room with no outside ventilation. The room door was closed. An ambient air cleaner with HEPA filtration was used between each trial to clean the air.

***TWA Calculation***

- The Time Weighted Average (TWA) was calculated assuming zero exposure to respirable crystalline silica for the non-sampled portion of a 480 minutes (8 hour) shift. Longer exposure times, assuming that the dust exposures would be similar to those collected in these trials, would likely result in higher TWAs. Factors, including, but not limited to, the ventilation and air flow patterns in the space where the work is done, the condition of the dust extractor boot, the positioning of the boot on the chisel, clogging of the air intake of the boot, the silica content of

the concrete, the presence of other respirable silica dust generating activities in the area, and vacuum maintenance could affect actual user exposures.

***It is the responsibility of the user to operate the tool in accordance with manufacturer's instructions. For the latest listings of approvals, visit milwaukeetool.com. For technical or service assistance, contact Milwaukee Customer Service at 1-800-729-3878.***