



Case Study

Containing the GLP-1 SPSS manufacturing processes with Downflow Booths and Kilohoods

Challenge

The manufacturing process of GLP-1 analogs involves hazardous steps, particularly during Solid-Phase Peptide Synthesis (SPPS) and purification.

This process utilizes various toxic and potentially carcinogenic chemicals, including trifluoroacetic acid, dimethylformamide, dichloromethane, and coupling reagents with OEB requirements of 3 & 4 and PPM exposures less than 1ppm.

Manufacturers are continuously enhancing safety measures to manufacture these compounds safely while meeting the growing global demand for these life-changing GLP-1 injectables. Howorth's standard product range is the answer to help maintain these needs.

Solution

Howorth's WorkSAFE Downflow Booths and KiloHOOD products are designed to achieve containment levels suitable for OEB 3 & 4 and maintaining exposure below <1 ppm.

Howorth Downflow Booths utilize unidirectional airflow system, where air is passed through ceiling-mounted H14 HEPA filters to ensure a controlled environment. This filtered air is directed to carry contaminants away from the operator's breathing zone, flowing into low-level exhaust grilles and through the booth's safe change HEPA filtration system. If solvents are present, the airflow system can be single pass design to protect the working environment.

During the purification process, where containment levels of <1 ppm are critical due to the exposure risks posed by toxic vapors, Kilohoods are essential. Howorth's Kilohoods provide a safe environment for these sensitive processes. With a continuous inrush of air through open doors, combined with a High Containment Screen, our technology ensures a highly controlled atmosphere, meeting stringent safety and containment requirements.