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Summary Report: Emissions Testing Hilti CF-I 750 Single Component Insulating Foam

On March 15th, 2004, EUROFINS Danmark received a sample of the **Hilti CF-I 750 Single Component Insulating Foam** (Batch 369800/8) for emissions testing during a simulation of the application. New cartridges were emptied completely into a small box. All MDI aerosol < 10 μ m being emitted into the air was collected at the outlet of the box by use of a cyclone and the amount was analysed following ISO 16702 (HPLC / UV after derivatisation).

Results

The emission test result was that no MDI aerosol was detected. The detection limit (expressed as MDI aerosol per cartridge) was transferred into a detection limit for the air concentration at three different typical workplaces. The real concentration at other workplaces - if any - can be expected below these values. The detailed test report has been delivered to HILTI AG.

Diphenylmethane-4,4'- diisocyanate (MDI), aerosol > 10 μm	Detection limit per cartridge	Normal work- places	Unventila- ted narrow location	OEL	Highest expected concentration
CAS 101-68-8	μ g	μg/m³	μ g/m³	μ g/m³	% of OEL
Results below these detection limits	<0.0002	<0.0001	<0.0002	52	<0.0004 %

< absent or less than the reported detection limit

OEL: Occupational Exposure Limit; the lowest available OEL from a survey of national OELs.

In situations when the workman works very close to the source he might face considerably higher short-term exposures than the steady-state concentration indicates. On the other hand, this was considered in the scenario 3 (Unventilated narrow location) to a certain extent.

Conclusion

For all investigated workplace scenarios the maximum expected air contamination was far below the respective occupational exposure limit.

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The results are only valid for the tested sample(s).

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 $^{1 \}mu g = 0.001 mg$