

# PROTECTION FOR THE UNEXPECTED THREAT

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## ABSTRACT

Traditionally respiratory protection in a CBRN context focusses on large scale exposure to vapor and biological aerosols in a situation where an attack is anticipated.

Nowadays the spectrum is broader. The anticipated contact level has decreased to a relatively small scale, but at the same time the number of agents and their appearance has increased. The major difference compared to the past is in the fact that new synthetic compounds have come available with the potential to be applied in a civilian setting without preliminary warnings based on intelligence. The exposures can therefore occur unexpectedly and military personnel and first responders are rarely prepared for such incidents. These new threats ask for a adapted respiratory protection. TNO investigates the requirements and possibilities for respiratory protection appropriate in these situations based on experimental and desk top studies. The presentation will look into several aspects of this research. Figure 1 shows one of the analysis tools used: a spider graph in which the relative importance of various parameters for different protective concepts is compared.

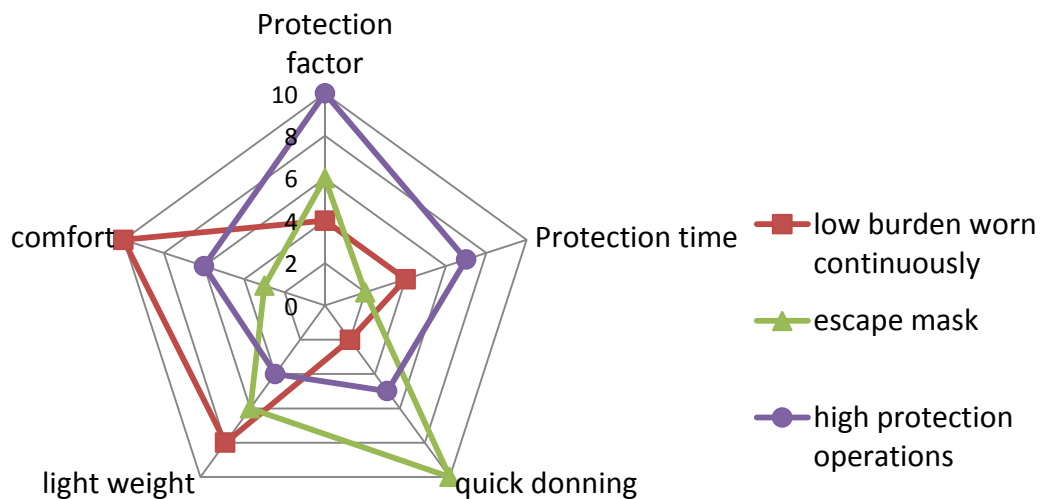


Figure 1 Importance of parameters such as protection factor, protection time and parameters related to burden for three types of respirator.