COMMITTEE ON DISARMAMENT

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<u>Working Paper</u> Binary weapons and the problem of their definition and verification

The binary (separation) principle in the storage and use of different chemical compounds for military purposes has been known since the beginning of this century. Nevertheless, it seems that no great progress in the obtaining of binary ammunitions had been achieved before the sixties, primarily because of technical and technological deficiencies. As is known, this principle is today based on two (or more) chemical compounds - components with relatively low degree of toxicity are stored and transported separately and are then introduced into corresponding ammunition or equipment for the dispersion of chemical warfare agents. These components are not mixed until the shell or rocket is fired, when the mixing of components takes place, and by reaching the target it creates highly toxic chemical warfare agents. Chemical compounds - components which are indispensable for the creation of binary chemical munitions have been called "precursors" in a large number of working papers submitted to the CD during the past years and this year as well, with the basic aim that, according to the criterion for toxicity, they are or could be far less toxic than the final product which is generated by their mutual chemical reaction

Today there is a trend (CD/CW/CRP.31 and CD/CW/CTC/13) for the term "<u>precursor</u>" to be applicable regardless of the process by which the agent is produced. All things considered, this means that the term "precursors" refers not only to binary chemical munitions but also to chemicals used in the production of chemical warfare agents in chemical plants.

The fact that the problem of binary weapons has been approached in this manner speaks about the complexity of this matter, both with regard to definition and with regard to verification.

The definitions of "precursors" as cited in CD/CW/CTC/4 of 16 March 1982 and in CD/CW/CRP.31 and CD/CW/CTC/13 of 18 March 1982 can, in our opinion, serve as a

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