

## Degradation of 2.2 dichlorovinyl dimethyl phosphate (DDVP) in aqueous solution, by gamma radiation.

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### ABSTRACT/RESUME

*Abstract: The degradation of the 2.2 dichlorovinyl dimethyl phosphate in aqueous suspension with gamma irradiation was studied. The solution was irradiated to absorbed doses varying from 0.1 to 10 kGy, using a 60Co gamma source. The results showed that the dichloros was completely degraded at the dose of 10kGy. Some by-products formed during the radiation degradation process were identified by gas chromatography associated to mass spectrometry (GC-MS), among them, Phosphoric acid trimethyl ester (C1); 2, chloroethenyl dimethyl ester phosphoric acid (C2) and o-methyl o-propyl isopropylphosphonate (C3). A degradation pathway for DDVP is proposed based on the identified by-products.*

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