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Abstract Sulfur mustards are well absorbed through inhalational, dermal, and ocular contacts and tend to distribute mostly to the lungs, liver, and kidneys. DNA and protein adducts are the main metabolites of sulfur mustards which are mainly excreted in the urine along with unchanged compounds. Sulfur nitrogen mustards have never been used as chemical warfare, their kinetic information are mostly related to those which have been used as chemotherapeutic agents. Upon absorption through intravenous or oral administration, nitrogen mustards are rapidly converted to their reactive metabolites and distributed so that the highest concentration can be

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