

The method of neutralization of highly toxic substances relates to the ecology and it can be used for the implementation of measures of environmental protection against highly toxic halogen-containing chemical compounds. Method consists in the neutralization of toxic compounds supplied to the reaction apparatus, by thermo-photolysis, which is achieved by action on the toxic substance or their mixture by ultraviolet radiation within the range of wavelengths from 200 to 600 nm and by luminous flux not less than 17500 lm, in the presence of catalyst containing metallic bismuth and oxides of aluminum, calcium or magnesium. Process is carried out at a temperature of 300-400 °C in the presence of water steam. The neutralization of toxic compounds can reach 100 %, toxic by-products obtained as a result of neutralization are absent.