

Formaldehyde is commonly found in various sources such as cigarette smoke, emissions from automobiles, fuel oil, natural gas, exhaust from vehicles powered by fossil fuels, furniture, and the fumes emitted by chipboard paint. Any disorders of its expression would induce cancer diseases. The reason is that the P53 protein functions as a transcription factor, which is normally regulated and controls the expression of genes in cells and prevents cancer formation (14). Disinfectants and sterilizers are commonly employed by educational institutions, higher education establishments, as well as biological, forensic, and pathological laboratories to safeguard tissues, surgical specimens, organs, and viscera (1,2). It was reported that broilers at eight weeks old revealed a reduction in feed intake and body mass, occurrence of local necrosis, as well as crop and intestinal hemorrhage after the administration of formalin in feed at different concentrations (12, 13). The presence of formic acid in the bloodstream leads to the development of a significant metabolic acidosis, while also impairing liver function through the inhibition of cholinesterase, succinate oxidation, and anaerobic glycolysis (3,4). The P53 protein, also known as the protein TP53, is a tumor suppressor protein encoded by the TP53 gene in humans. So, this protein plays a crucial role in regulating cell growth and preventing the formation of cancerous tumors.