


**TOXICITY, BIOACCUMULATION AND HISTOPATHOLOGICAL
EFFECTS OF THE SUB-LETHAL DOSE OF POTASSIUM
NITRATE ON MALE ALBINO MICE (*Mus musculus*)**

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AKLATANG EMILIO AGUINALDO ARCHIVES

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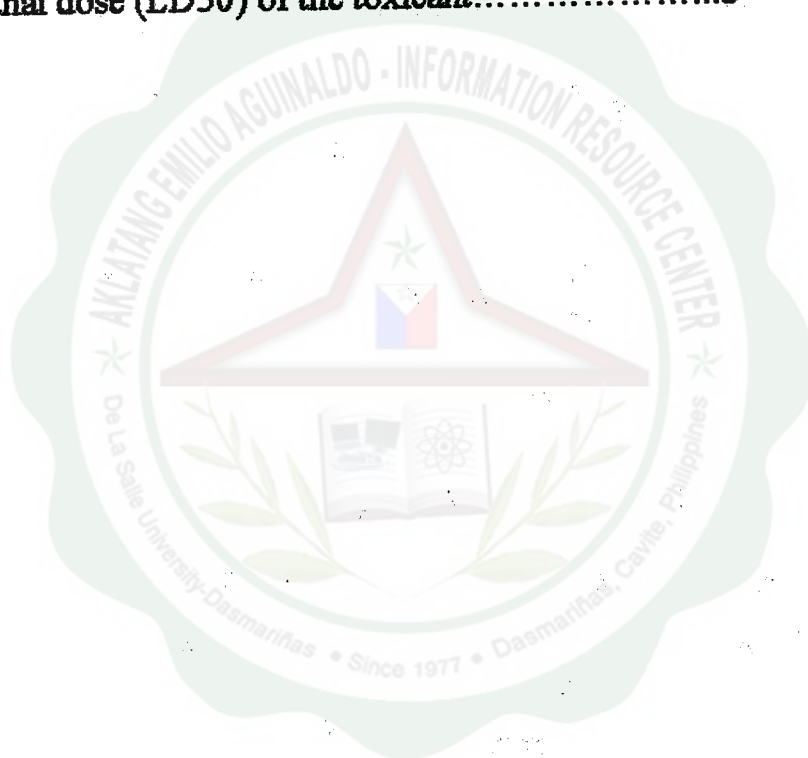
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ABSTRACT

The 96-hour LD50 of potassium nitrate to adult (45-day old) male albino (*Mus musculus*) was determined at 2.912 mg/kg body weight concentration. The sub-lethal concentration of 2.41 mg/kg body weight concentration (83% of 96-hour LD50 potassium nitrate) was used for the bioaccumulation, biotransfer factor determination and histopathological studies.

Mean nitrite residues (ug/g) were found in the treated liver (1.663) and biotransfer factor was computed to be 0.69. Indicating a high biotransfer factor.

Swollen and vacuolated hepatocytes and dilated sinusoids were noted in the potassium nitrate-treated liver. Some hepatocytes in the treated liver showed necrosis and karyolysis indicating unprogrammed cell death.

It was recommended that further biochemical and ultrastructural studies be conducted to support histological findings. Also, a general assessment be made on other preserving agents to establish its toxicity and possible effects on mammalian species.