Preparation of Hydrazinium Sulfate.

$$2\ NH_3 + NaOCl + H_2SO_4 \rightarrow N_2H_4 \cdot H_2SO_4 + NaCl + H_2O$$

One-hundred-forty-one ml of Chlorox bleach (5.25 precent NaOCl) was added to 200 ml of 20 percent ammonium hydroxide and 5 ml of 1 per cent limewater $Ca(OH)_2$ in a one liter Erlenmeyer flask. The mixture was rapidly heated to boiling and maintained until the volume was reduced to about half, which required about one-half hour. The solution was rapidly cooled and dilute sulfuric acid was added until a pH of 7-8 was attained and the precipitate that formed was separated by filtration. The cold filtrate was strongly acidified with 40 percent sulfuric acid. The white precipitate was filtered, washed with methanol and air dried. Melting point 254 $\pm$ 2 °C (lit. 254 °C).

Preparation of Isopropyl Nitrite.

A mixture of 45 ml concentrated sulfuric acid, 30 ml water and 110 ml isopropyl alcohol, previously cooled to 0^{o} C, was added to an ice cold solution of 114 grams of sodium nitrite in 450 ml of H_2O. Slow addition required about two hours in order to maintain temperature around 0^{o}C. The upper oily layer was separated and washed three times with 30 ml portions of 5 gram 100 ml sodium bicarbonate solution and 22 grams NaCl 100 ml solution respectively.