

TABLE 9-continued

#	0-80 mg/dl Differentiation seconds (comments)	Stock Ketone (comment)
M2H	15-20 (good)	pink instant (violet)
M2L	90-120 (weak)	slow (pink- blue)
M3H	15-20 (good)	instant (violet)
M3L	90-120 (weak)	slow (pink- blue)
M4H	20 (good)	instant (violet)
M4L	60 (fair)	moderate
M5H	30 (fair)	moderate (violet)
M5L	60 (fair)	slow (pink)

Thus, the reported results indicate that a wide variety of primary amines, both aromatic and aliphatic, are effective in combination with magnesium salts of the invention. Also, it is evident that elevation of pH is an important factor.

EXAMPLE XII

The following experiment illustrates the combined effect of Ca^{++} and primary amines.

Solutions were prepared following the formulations of Table 10 in which 2 M aqueous TRIS solution containing 20 g/l Steol CA 460 and 111 g/l CaCl_2 (TRIS Solution) is combined respectively with various primary amines.

TABLE 10

Formulation		pH 7.6 (High)	pH 6.0 (Low)
TRIS solutin	50.0 ml		
Histidine . HCl . H_2O	2.1 g.	C1H	C1L
$\text{Na}_2[(\text{NO})\text{Fe}(\text{CN})_5]$	2.5 g.		
TRIS solution	50.0 ml		
Glycine	0.75 g.	C2H	C2L
$\text{Na}_2[(\text{NO})\text{Fe}(\text{CN})_5]$	2.5 g.		
TRIS solution	50.0 ml		
AMSA	1.11 g.	C3H	C3L
$\text{Na}_2[(\text{NO})\text{Fe}(\text{CN})_5]$	2.55 g.		
TRIS solution	50.0 ml		
Cystic Acid	1.87 g.	C4H	C4L
$\text{Na}_2[(\text{NO})\text{Fe}(\text{CN})_5]$	2.5 g.		
TRIS solution	50.0 ml		
Picolylamine	1.08 g.	C5H	C5L
$\text{Na}_2[(\text{NO})\text{Fe}(\text{CN})_5]$	2.5 g.		

Sheets of Whatman paper 2.5 cm \times 10 cm in size were respectively impregnated to saturation with each of the above-prepared solutions, dried at 125° F., and cut to 0.5 cm \times 0.5 cm to form devices of the present invention. The devices so prepared were attached to plastic support members 0.5 cm \times 8.0 cm by double-faced adhesive tape.

The devices were tested by momentary immersion in stock ketone and in urine solutions having 0, 20, 40, and 80 mg/dl ketone, with results as shown in Table 11.

TABLE 11

#	0-80 mg/dl Differentiation seconds (comments)	Stock Ketone (comment)
C1H	30-60 (good-excellent)	instant (rose- violet)
C1L	60 (weak blue)	slow (violet)
C2H	45-90 (good-excellent)	instant (rose- violet)
C2L	90 (weak)	slow (violet)

TABLE 11-continued

#	0-80 mg/dl Differentiation seconds (comments)	Stock Ketone (comment)
C3H	60-90 (good)	pink instant (rose- blue)
C3L	120 (weak)	slow (pink)
C4H	60-90 (weak-fair)	instant (rose)
C4L	60-120 (weak-fair)	slow (pink- violet)
C5H	30-60 (fair-good)	instant (rose)
C5L	60 (weak)	slow (pink- violet)

It can be seen that a wide variety of primary amines are effectively combined with calcium salts as well. Elevated pH is also shown to be an important factor.

Although the invention has been described with a certain degree of particularity, it is understood that the present disclosure has been made only by way of example and that numerous changes in the details may be resorted to without departing from the scope of the invention.

What is claimed is:

1. A test composition for detection of ketones at alkaline pH which comprises a soluble nitroprusside in combination with a compound to produce said alkaline pH and at least one inorganic salt of a metal selected from the group consisting of magnesium and calcium.

2. The test composition of claim 1 wherein the metal salt is selected from the group consisting of MgSO_4 and CaCl_2 .

3. The test composition of claim 1 wherein there is present a combination of metal salts.

4. The test composition of claim 3 wherein said combination comprises MgSO_4 and CaCl_2 .

5. The test composition of claim 1 wherein said nitroprusside is sodium nitroprusside.

6. A ketone detection device which comprises a carrier matrix and, incorporated therewith, the test composition of claim 1.

7. The device of claim 6 in which the carrier matrix is bibulous.

8. A ketone detection device which comprises a tablet incorporated with the test composition of claim 1.

9. A ketone detection device which comprises a carrier matrix incorporated with a composition comprising sodium nitroprusside, MgSO_4 and a component to produce an alkaline pH.

10. A process for the preparation of a ketone test device which comprises incorporating a carrier matrix with the test composition of claim 1.

11. The process of claim 10 wherein said incorporating is impregnating with a solution of said test composition, followed by drying.

12. A process for detection of ketone in a liquid sample which comprises contacting said sample with the test composition of claim 1 and observing any resultant color formed.

13. A process for detection of ketone in a liquid sample which comprises contacting said sample with the device of claim 6 and observing any resultant color formed.

14. A test composition for the detection of ketones at an alkaline pH which comprises a soluble nitroprusside, a component to produce said alkaline pH, at least one inorganic salt of a metal selected from the group con-