

LAMPIRAN

Lampiran 1. Perhitungan Konsentrasi Baku Kerja Formalin

Rumus Pengenceran:

$$V_1 \times M_1 = V_2 \times M_2$$

Diketahui : $V_1 = ?$

$M_1 = 10.000 \text{ ppm}$

$M_2 = 100$

$V_2 = 100, 200, 400, 600, 800, 1000$

1. Pembuatan larutan baku formalin 100 ppm

$$\begin{aligned} V_1 \times M_1 &= V_2 \times M_2 \\ V_1 \times 10.000 &= 100 \times 100 \\ V_1 &= \frac{10.000}{10.000} \\ &= 1 \text{ ml} \end{aligned}$$

2. Pembuatan larutan baku 200 ppm

$$\begin{aligned} V_1 \times M_1 &= V_2 \times M_2 \\ V_1 \times 10.000 &= 100 \times 200 \\ V_1 &= \frac{20.000}{10.000} \\ &= 2 \text{ ml} \end{aligned}$$

3. Pembuatan larutan baku 400 ppm

$$V_1 \times M_1 = V_2 \times M_2$$

$$V_1 \times 10.000 = 100 \times 400$$

$$V_1 = \frac{40.000}{10.000}$$

$$= 4 \text{ ml}$$

4. Pembuatan larutan baku 600 ppm

$$V_1 \times M_1 = V_2 \times M_2$$

$$V_1 \times 10.000 = 100 \times 600$$

$$V_1 = \frac{60.000}{10.000}$$

$$= 6 \text{ ml}$$

5. Pembuatan larutan baku 800 ppm

$$V_1 \times M_1 = V_2 \times M_2$$

$$V_1 \times 10.000 = 100 \times 800$$

$$V_1 = \frac{80.000}{10.000}$$

$$= 8 \text{ ml}$$

6. Pembuatan larutan baku 1000 ppm

$$V_1 \times M_1 = V_2 \times M_2$$

$$V_1 \times 10.000 = 100 \times 1.000$$

$$V_1 = \frac{100.000}{10.000}$$

$$= 10 \text{ ml.}$$

Lampiran 2. Perhitungan Kadar Formalin

1. Pembuatan Larutan Sampel

Berat sampel = 1 gram

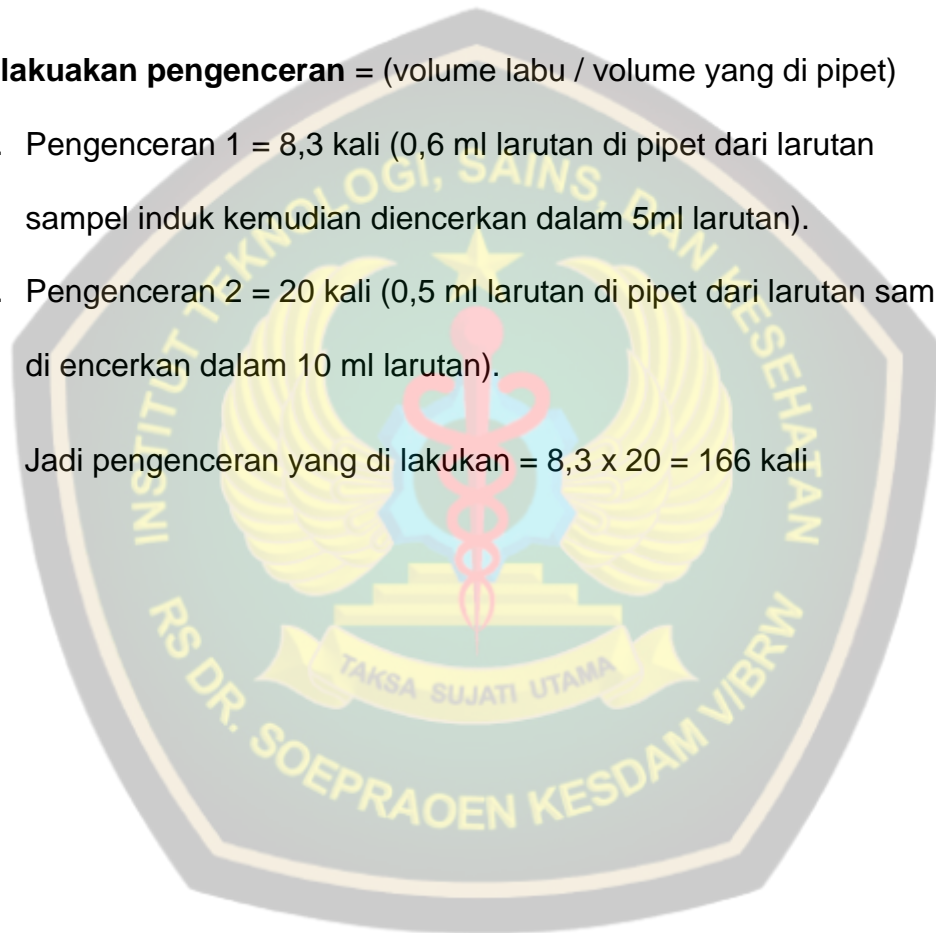
Labu ukur = 25 ml

Konsentrasi sampel = $\text{mg sampel/L} = 1000 \text{ mg} / 0,025 \text{ L} = 40.000 \text{ ppm}$

2. Dilakukan pengenceran = (volume labu / volume yang di pipet)

- a. Pengenceran 1 = 8,3 kali (0,6 ml larutan di pipet dari larutan sampel induk kemudian diencerkan dalam 5ml larutan).
- b. Pengenceran 2 = 20 kali (0,5 ml larutan di pipet dari larutan sampel di encerkan dalam 10 ml larutan).

Jadi pengenceran yang dilakukan = $8,3 \times 20 = 166$ kali



Lampiran 3. Perhitungan Kadar Formalin pada sampel ikan asin

$$\frac{C \times V \times FP \times 100\%}{W}$$

W

Diketahui C = konsentrasi

V = volume total

FP= faktor pengencer

W =

a. Sampel A

$$Y = 0,0009x - 0,0389$$

$$0,005 = 0,009x - 0,0389$$

$$0,005 + 0,0389 = 0,0009x$$

$$0,0439 = 0,009x$$

$$X = \frac{0,0439}{0,0009}$$

$$X = 48,78 \text{ ppm (mg/L)}$$

Kadar dalam %

$$\frac{C \times V \times fp}{W} \times 100\% = \frac{48,78 \frac{\text{mg}}{\text{L}} \times 0,025 \text{ L} \times 166}{1000 \text{ mg}} \times 100\%$$

$$= 0,20\%$$

b. Sampel B

$$Y = 0,0009x - 0,0389$$

$$0,002 = 0,0009x - 0,0389$$

$$0,002 + 0,0389 = 0,0009x$$

$$0,0409 = 0,0009x$$

$$X = 0,0409/0,0009$$

$$= 4,54 \text{ ppm (mg/L)}$$

Kadar dalam %

$$\frac{CxV_{x_{fp}}}{W} \times 100\% = \frac{4,54 \frac{\text{mg}}{\text{L}} \times 0,025 \text{ L} \times 166}{1000\text{mg}} \times 100\%$$

$$= 1,88\%$$

c. Sampel C

$$Y = 0,0009x - 0,0389$$

$$0,004 = 0,0009x - 0,0389$$

$$0,004 + 0,0389 = 0,0009x$$

$$0,0429 = 0,0009x$$

$$X = 0,0429/0,0009$$

$$= 47,66 \text{ ppm (mg/L)}$$

Kadar dalam %

$$\frac{CxV_{x_{fp}}}{W} \times 100\% = \frac{47,66 \frac{\text{mg}}{\text{L}} \times 0,025 \text{ L} \times 166}{1000\text{mg}} \times 100\%$$

$$= 19,77 \%$$

d. Sampel D

$$Y = 0,0009x - 0,0389$$

$$0,001 = 0,0009x - 0,0389$$

$$0,001 + 0,0389 = 0,0009x$$

$$0,0399 = 0,0009x$$

$$X = 0,0399/0,0009$$

$$= 44,33 \text{ ppm(mg/L)}$$

Kadar dalam %

$$\frac{CxV_{x_{fp}}}{W} \times 100\% = \frac{44,33 \frac{\text{mg}}{\text{L}} \times 0,025 \text{ L} \times 166}{1000\text{mg}} \times 100\%$$

$$= 18,39 \%$$

e. Sampel E

$$Y = 0,0009x - 0,0389$$

$$0,003 = 0,0009x - 0,0389$$

$$0,003 + 0,0389 = 0,0009x$$

$$0,0419 = 0,0009x$$

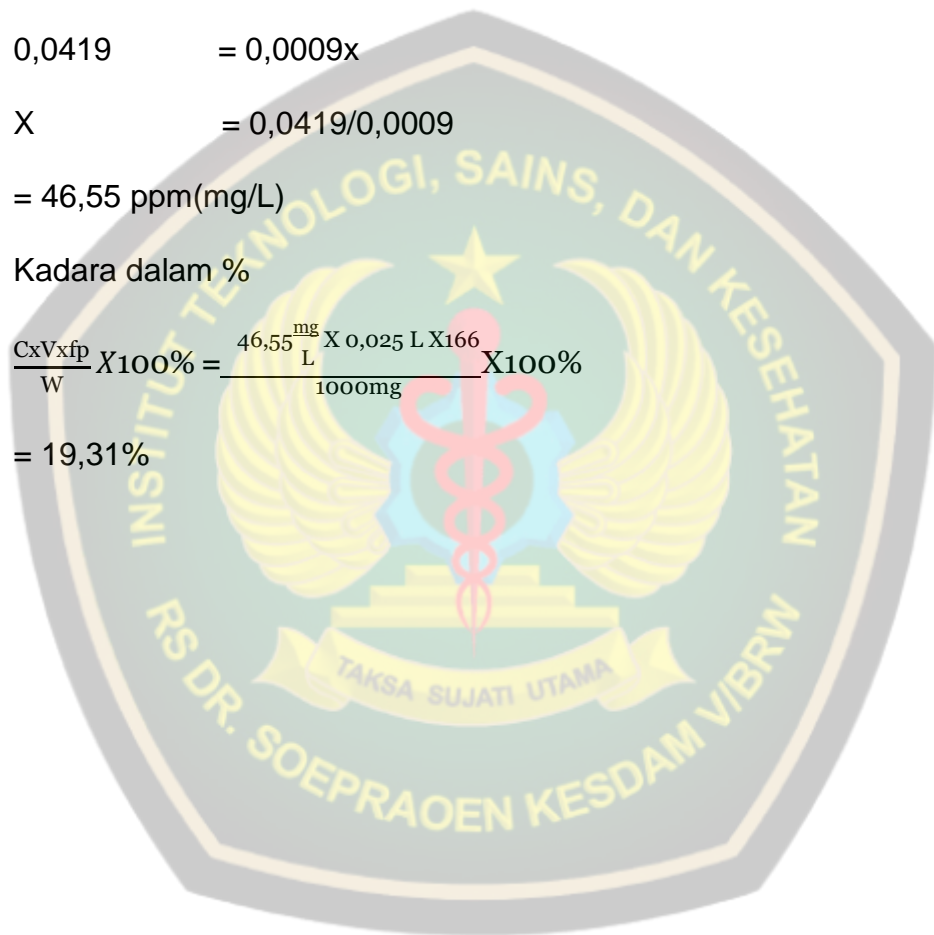
$$X = 0,0419 / 0,0009$$

$$= 46,55 \text{ ppm (mg/L)}$$

Kadara dalam %

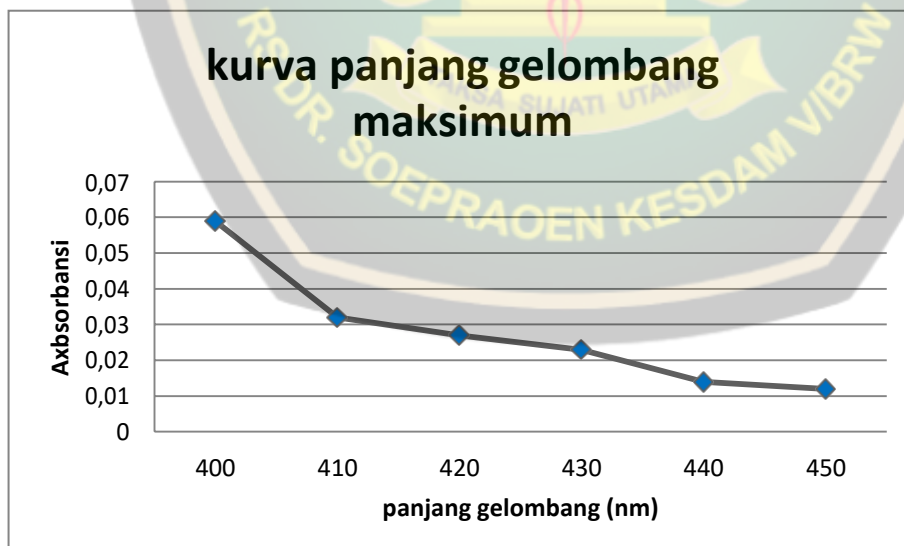
$$\frac{CxV_{x_{fp}}}{W} \times 100\% = \frac{46,55 \frac{\text{mg}}{\text{L}} \times 0,025 \text{ L} \times 166}{1000\text{mg}} \times 100\%$$

$$= 19,31\%$$



Lampiran 4. Panjang Gelombang Maksimum

Panjang Gelombang (nm)	Absorbansi
400	0,059
410	0,032
420	0,027
430	0,023
440	0,014
450	0,012
460	0,010
470	0,008
480	0,007
490	0,010
500	0,006



Lampiran 5. Dokumentasi sampel ikan asin



Ikan Asin Sepat



Ikan Asin Semenit



Ikan Asin klentang



Ikan Asin Bulu Ayam



Ikan Asin Klotok

Lampiran 6. Gambar Tes Kit

