



## ANALISA KEBUTUHAN REAGEN

Tanggal SPB : 27 Maret 2026

No. SPB :

1. Ethanol gradient grade (ex. RCI Labscan No. Cat RP1380-G4L; ex Supelco NO. Cat 1.023714000)

| Serapan Material         | Mar 26  | Apr 26   | Mei 26  | Jun 26  | Jul 26  | Ags 26  | Sep 26  | Okt 26  | Nov 26  | Des 26  |
|--------------------------|---------|----------|---------|---------|---------|---------|---------|---------|---------|---------|
| Stok awal                | 4000 mL |          |         |         |         |         |         |         |         |         |
| Aktual pemakaian         |         |          |         |         |         |         |         |         |         |         |
| Rencana kebutuhan        |         | 12000 mL |         |         |         |         |         |         |         |         |
| Outstanding PO           |         |          |         |         |         |         |         |         |         |         |
| Rencana pemakaian        |         |          |         |         |         |         |         |         |         |         |
| - Stabilitas Produk Baru | 500 mL  | 500 mL   | 500 mL  | 400 mL  | 450 mL  | 150 mL  | 200 mL  | 600 mL  | 400 mL  | 300 mL  |
| - Validasi Proses        | 1500 mL | 1500 mL  | 1500 mL |         | 600 mL  | 1500 mL |         |         |         |         |
| - Uji Bahan Baku         |         |          | 500 mL  |         |         |         | 300 mL  | 200 mL  | 300 mL  |         |
| - Produksi               |         |          |         |         |         |         | 400 mL  |         |         |         |
| Stok sisa                | 2000 mL | 12000 mL | 9500 mL | 9100 mL | 8050 mL | 6400 mL | 5500 mL | 4700 mL | 4000 mL | 3700 mL |

Note : sisa untuk stok reagen tahun 2026

Klaten, 18 Maret 2026

Disusun oleh,

Nilam Wardah

Diperiksa Oleh,

Yeni Tri Hastuti

Paulijanto

Disetujui oleh,

Suherman



Perhitungan :

| Maret                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | April                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Mei                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| <p>1. Stabilitas</p> <ul style="list-style-type: none"> <li>Baku Lemongrass = <math>45 \text{ mL} \times 2 = 90 \text{ mL}</math></li> <li>Baku Metil Salisilat = <math>45 \text{ mL} \times 2 = 90 \text{ mL}</math></li> <li>Sampel = <math>4 \text{ sampel} \times 45 \text{ mL} = 180 \text{ mL}</math></li> </ul> <p>Total = <math>90 \text{ mL} + 90 \text{ mL} + 180 \text{ mL} = 360 \text{ mL} \sim 500 \text{ mL}</math></p> <p>2. Validasi Proses Mohpain</p> <ul style="list-style-type: none"> <li>Baku Lemongrass = <math>45 \text{ mL} \times 3 = 135 \text{ mL}</math></li> <li>Baku Metil Salisilat = <math>45 \text{ mL} \times 3 = 135 \text{ mL}</math></li> <li>Sampel</li> </ul> <p>Mixing = <math>10 \text{ sampel} \times 45 \text{ mL} = 450 \text{ mL}</math></p> <p>Filling = <math>10 \text{ sampel} \times 45 \text{ mL} = 450 \text{ mL}</math></p> <p>Repack = <math>2 \text{ sampel} \times 45 \text{ mL} = 90 \text{ mL}</math></p> <p>Total = <math>135 \text{ mL} + 135 \text{ mL} + 450 \text{ mL} + 450 \text{ mL} + 90 \text{ mL} = 1.260 \text{ mL} \sim 1.500 \text{ mL}</math></p> | <p>1. Stabilitas</p> <ul style="list-style-type: none"> <li>Woluwolu minyak balur</li> </ul> <p>Baku = <math>30 \text{ mL} \times 2 = 60 \text{ mL}</math></p> <p>Sampel = <math>4 \text{ sampel} \times 30 \text{ mL} = 120 \text{ mL}</math> <li>Woluwolu minyak telon</li> <p>Baku = <math>50 \text{ mL}</math></p> <p>Sampel = <math>2 \text{ sampel} \times 50 \text{ mL} = 100 \text{ mL}</math></p> <p>Total = <math>60 \text{ mL} + 120 \text{ mL} + 50 \text{ mL} + 100 \text{ mL} = 350 \text{ mL} \sim 500 \text{ mL}</math></p> <p>2. Validasi Proses Mohpain</p> <ul style="list-style-type: none"> <li>Baku Lemongrass = <math>45 \text{ mL} \times 3 = 135 \text{ mL}</math></li> <li>Baku Metil Salisilat = <math>45 \text{ mL} \times 3 = 135 \text{ mL}</math></li> <li>Sampel</li> </ul> <p>Mixing = <math>10 \text{ sampel} \times 45 \text{ mL} = 450 \text{ mL}</math></p> <p>Filling = <math>10 \text{ sampel} \times 45 \text{ mL} = 450 \text{ mL}</math></p> <p>Repack = <math>2 \text{ sampel} \times 45 \text{ mL} = 90 \text{ mL}</math></p> <p>Total = <math>135 \text{ mL} + 135 \text{ mL} + 450 \text{ mL} + 450 \text{ mL} + 90 \text{ mL} = 1.260 \text{ mL} \sim 1.500 \text{ mL}</math></p> </p> | <p>1. Stabilitas</p> <ul style="list-style-type: none"> <li>Woluwolu minyak balur</li> </ul> <p>Baku = <math>30 \text{ mL}</math></p> <p>Sampel = <math>2 \text{ sampel} \times 30 \text{ mL} = 60 \text{ mL}</math></p> <p>Total = <math>30 \text{ mL} + 60 \text{ mL} = 90 \text{ mL}</math> <li>Mohpain</li> <p>Baku Lemongrass = <math>45 \text{ mL}</math></p> <p>Baku Metil Salisilat = <math>45 \text{ mL}</math></p> <p>Sampel = <math>2 \text{ sampel} \times 45 \text{ mL} = 90 \text{ mL}</math></p> <p>Total = <math>45 \text{ mL} + 45 \text{ mL} + 90 \text{ mL} = 180 \text{ mL}</math> <li>Woluwolu minyak kayu putih</li> <p>Baku = <math>30 \text{ mL}</math></p> <p>Sampel = <math>2 \text{ sampel} \times 30 \text{ mL} = 60 \text{ mL}</math></p> <p>Total = <math>30 \text{ mL} + 60 \text{ mL} = 90 \text{ mL}</math></p> <p>Total = <math>90 \text{ mL} + 180 \text{ mL} + 90 \text{ mL} = 360 \text{ mL} \sim 500 \text{ mL}</math></p> <p>2. Validasi Proses Mohpain</p> <ul style="list-style-type: none"> <li>Baku Lemongrass = <math>45 \text{ mL} \times 3 = 135 \text{ mL}</math></li> <li>Baku Metil Salisilat = <math>45 \text{ mL} \times 3 = 135 \text{ mL}</math></li> </ul> </p></p> |



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| <p>1. Stabilitas</p> <ul style="list-style-type: none"><li>Woluwolu minyak balur<br/><math>\text{Baku} = 30 \text{ mL} \times 2 = 60 \text{ mL}</math><br/><math>\text{Sampel} = 4 \text{ sampel} \times 30 \text{ mL} = 120 \text{ mL}</math><br/><math>\text{Total} = 60 \text{ mL} + 120 \text{ mL} = 180 \text{ mL}</math></li><li>Woluwolu minyak kayu putih<br/><math>\text{Baku} = 30 \text{ mL} \times 2 = 60 \text{ mL}</math><br/><math>\text{Sampel} = 4 \text{ sampel} \times 30 \text{ mL} = 120 \text{ mL}</math><br/><math>\text{Total} = 60 \text{ mL} + 120 \text{ mL} = 180 \text{ mL}</math></li></ul> <p><math>\text{Total} = 180 \text{ mL} + 180 \text{ mL} = 360 \text{ mL} \sim 400 \text{ mL}</math></p> | <p>1. Validasi Proses Woluwolu minyak balur IMTA</p> <ul style="list-style-type: none"><li><math>\text{Baku} = 20 \text{ mL}</math></li><li><math>\text{Sampel} = 10 \text{ sampel} \times 20 \text{ mL} = 200 \text{ mL}</math><br/><math>\text{Total} = 20 \text{ mL} + 200 \text{ mL} = 220 \text{ mL}</math></li></ul> <p>Woluwolu minyak balur</p> <ul style="list-style-type: none"><li><math>\text{Baku} = 30 \text{ mL}</math></li><li><math>\text{Sampel} = 10 \text{ sampel} \times 30 \text{ mL} = 300 \text{ mL}</math><br/><math>\text{Total} = 30 \text{ mL} + 300 \text{ mL} = 330 \text{ mL}</math></li></ul> <p><math>\text{Total} = 220 \text{ mL} + 330 \text{ mL} = 550 \text{ mL} \sim 600 \text{ mL}</math></p> <p>2. Stabilitas</p> <ul style="list-style-type: none"><li>Woluwolu minyak balur<br/><math>\text{Baku} = 30 \text{ mL} \times 3 = 90 \text{ mL}</math><br/><math>\text{Sampel} = 11 \text{ sampel} \times 30 \text{ mL} = 330 \text{ mL}</math><br/><math>\text{Total} = 90 \text{ mL} + 330 \text{ mL} = 420 \text{ mL} \sim 450 \text{ mL}</math></li></ul> | <ul style="list-style-type: none"><li>Sampel<br/><math>\text{Mixing} = 10 \text{ sampel} \times 45 \text{ mL} = 450 \text{ mL}</math><br/><math>\text{Filling} = 10 \text{ sampel} \times 45 \text{ mL} = 450 \text{ mL}</math><br/><math>\text{Repack} = 2 \text{ sampel} \times 45 \text{ mL} = 90 \text{ mL}</math><br/><math>\text{Total} = 135 \text{ mL} + 135 \text{ mL} + 450 \text{ mL} + 450 \text{ mL} + 90 \text{ mL} = 1.260 \text{ mL} \sim 1.500 \text{ mL}</math></li><li>3. Bahan Baku<br/><math>\text{Baku} = 30 \text{ mL} \times 3 = 90 \text{ mL}</math><br/><math>\text{Sampel} = 12 \text{ sampel} \times 30 \text{ mL} = 360 \text{ mL}</math><br/><math>\text{Total} = 90 \text{ mL} + 360 \text{ mL} = 450 \text{ mL} \sim 500 \text{ mL}</math></li></ul> |

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| Agustus                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | September                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Oktober                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| November                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Desember                                                                                                                                                                                                                                                                                                                                                                       |
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| <p>1. Stabilitas</p> <ul style="list-style-type: none"><li>Woluwolu minyak balur<br/>Baku = 30 mL<br/>Sampel = 2 sampel x 30 mL = 60 mL<br/>Total = 30 mL + 60 mL = 90 mL</li><li>Mohpain<br/>Baku Lemongrass = 45 mL<br/>Baku Metil Salisilat = 45 mL<br/>Sampel = 2 sampel x 45 mL = 90 mL<br/>Total = 45 mL + 45 mL + 90 mL = 180 mL</li><li>Woluwolu minyak kayu putih<br/>Baku = 30 mL<br/>Sampel = 2 sampel x 30 mL = 60 mL<br/>Total = 30 mL + 60 mL = 90 mL</li></ul> <p>Total = 90 mL + 180 mL + 90 mL = 360 mL ~ 400 mL</p> <p>2. Bahan Baku</p> <p>Baku = 30 mL x 2 = 60 mL<br/>Sampel = 6 sampel x 30 mL = 180 mL<br/>Total = 60 mL + 180 mL = 240 mL ~ 300 mL</p> | <p>1. Stabilitas</p> <ul style="list-style-type: none"><li>Woluwolu minyak balur<br/>Baku = 30 mL x 4 = 60 mL<br/>Sampel = 4 sampel x 30 mL = 120 mL<br/>Total = 60 mL + 120 mL = 180 mL</li><li>Woluwolu minyak kayu putih<br/>Baku = 30 mL<br/>Sampel = 2 sampel x 30 mL = 60 mL<br/>Total = 30 mL + 60 mL = 90 mL</li></ul> <p>Total = 180 mL + 90 mL = 270 mL ~ 300 mL</p> |

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