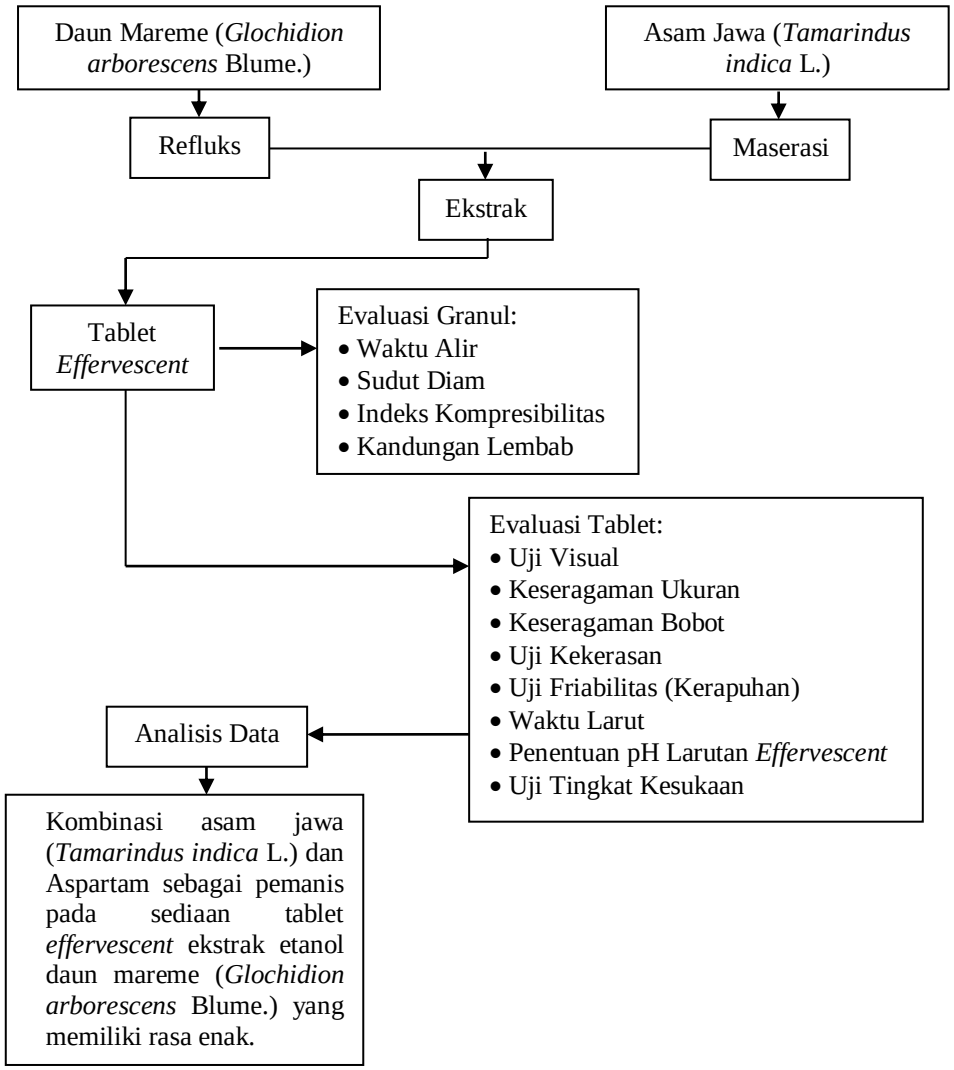
LAMPIRAN 1

DIAGRAM ALIR PROSEDUR PENELITIAN



LAMPIRAN 2

HASIL DETERMINASI TANAMAN

1. Daun Mareme (*Glochidion arborescens* Blume.)

HERBARIUM JATINANGOR
LABORATORIUM TAKSONOMI TUMBUHAN
JURUSAN BIOLOGI FMIPA UNPAD
Gedung D2-212, Jl. Raya Bandung Sumedang Km 21 Jatinangor
Telp. 022-7796412, email: phanerogamae@yahoo.com

LEMBAR IDENTIFIKASI TUMBUHAN
No.50/HB/01/2021

Herbarium Jatinangor, Laboratorium Taksonomi Tumbuhan, Jurusan Biologi FMIPA UNPAD, dengan ini menerangkan bahwa:

Nama	: Tri Nurjanah
NPM	: 31117096
Instansi	: STIKES BTH Tasikmalaya

Telah melakukan identifikasi tumbuhan, dengan No. Koleksi: -

Tanggal Koleksi	: 20 Januari 2021.
Lokasi	: Tasikmalaya.

Hasil Identifikasi,

Nama Ilmiah	: ***Glochidion arborescens* Blume.**
Sinonim	: *Glochidion bancanum* Miq.
Nama Lokal	: Daun mareme
Suku/Famili	: Euphorbiaceae

Klasifikasi (Hirarki Taksonomi)

Kingdom	Plantae
Divisi	Magnoliophyta
Class	Magnoliopsida
Ordo	Euphorbiales
Famili	Euphorbiaceae
Genus	*Glochidion*
Species	*Glochidion arborescens* Blume.

Referensi:

Backer, C. A. and Bakkuizen v/d Brink R. C Jr. 1963. *Flora of Java*. Wolter-Noordhoff NV. Groningen.

Cronquist, Arthur. 1981. *AnIntegrated System of Classification of Flowering Plants*. Columbia University Press. New York

The Plant List.*Website DuniaTumbuhan*.http://www.theplantlist.org/tpl1.1/record/kew-158489. Diakses tanggal, 26 Januari 2021.

Jatinangor, 26 Januari 2021.

Identifikator,

LABORATORIUM TAKSONOMI TUMBUHAN
JURUSAN BIOLOGI FMIPA-UNPAD

Drs. Joko Kusmoro, M.P.
NIP. 19600801 199101 1 001

2. Asam Jawa (*Tamarindus indica* L.)

HERBARIUM JATINANGOR
LABORATORIUM TAKSONOMI TUMBUHAN
JURUSAN BIOLOGI FMIPA UNPAD
Gedung D2-212, Jl. Raya Bandung Sumedang Km 21 Jatinangor
Telp. 022-7796412, email: phanerogamae@yahoo.com

LEMBAR IDENTIFIKASI TUMBUHAN
No.51/HB/01/2021

Herbarium Jatinangor, Laboratorium Taksonomi Tumbuhan, Jurusan Biologi FMIPA UNPAD, dengan ini menerangkan bahwa:

Nama	: Tri Nurjanah
NPM	: 31117096
Instansi	: STIKES BTH Tasikmalaya

Telah melakukan identifikasi tumbuhan, dengan No. Koleksi: -

Tanggal Koleksi	: 20 Januari 2021.
Lokasi	: Tasikmalaya.

Hasil Identifikasi,

Nama Ilmiah	: ***Tamarindus indica* L.**
Sinonim	: *Tamarindus occidentalis* Gaertn.
Nama Lokal	: Buah asam jawa
Suku/Famili	: Fabaceae

Klasifikasi (Hirarki Taksonomi)

Kingdom	Plantae
Divisi	Magnoliophyta
Class	Magnoliopsida
Ordo	Fabales
Famili	Fabaceae
Genus	*Tamarindus*
Species	*Tamarindus indica* L.

Referensi:

Backer, C. A. and Bakkuizen v/d Brink R. C Jr. 1963. *Flora of Java*. Wolter-Noordhoff NV. Groningen.

Cronquist, Arthur. 1981. *AnIntegrated System of Classification of Flowering Plants*. Columbia University Press. New York

The Plant List.*Website DuniaTumbuhan*.http://www.theplantlist.org/tpl1.1/record/kew-158489. Diakses tanggal, 26 Januari 2021.

Jatinangor, 26 Januari 2021.

Identifikator,

LABORATORIUM TAKSONOMI TUMBUHAN
JURUSAN BIOLOGI FMIPA-UNPAD

Drs. Joko Kusmoro, M.P.
NIP. 19600801 199101 1 001

LAMPIRAN 3

HASIL KODE ETIK MANUSIA

KOMITE ETIK PENELITIAN KESEHATAN
HEALTH RESEARCH ETHICS COMMITTEE
SEKOLAH TINGGI ILMU KESEHATAN BAKTI TUNAS HUSADA TASIKMALAYA
STIKES BTH

KETERANGAN LAYAK ETIK
DESCRIPTION OF ETHICAL EXEMPTION
"ETHICAL EXEMPTION"

No.102/kepk-bth/V/2021

Protokol penelitian yang diusulkan oleh :
The research protocol *proposed by*

Peneliti utama : Tri Nurjanah
Principal In Investigator
Nama Institusi : STIKes Bakti Tunas Husada Tasikmalaya
Name of the Institution
Dengan judul :
Title

"OPTIMASI FORMULA ASAM JAWA (Tamarindus indica L.) DAN ASPARTAM SEBAGAI BAHAN PEMANIS PADA FORMULASI TABLET EFFERVESCENT EKSTRAK ETANOL DAUN MAREME (glochidion arborescens blume) SEBAGAI ANTIDIABETES"

Dinyatakan layak etik sesuai 7 (tujuh) Standar WHO 2011, yaitu 1) Nilai Sosial, 2) Nilai Ilmiah, 3) Pemerataan Beban dan Manfaat, 4) Risiko, 5) Bujukan/Eksploitasi, 6) Kerahasiaan dan Privacy, dan 7) Persetujuan Setelah Penjelasan, yang merujuk pada Pedoman CIOMS 2016. Hal ini seperti yang ditunjukkan oleh terpenuhinya indikator setiap standar.
Declared to be ethically appropriate in accordance to 7 (seven) WHO 2011 Standards, 1) Social Values, 2) Scientific Values, 3) Equitable Assessment and Benefits, 4) Risks, 5) Persuasion/Exploitation, 6) Confidentiality and Privacy, and 7) Informed Concent, referring to the 2016 CIOMS Guidelines. This is as indicated by the fulfillment of the indicators of each standard.

Pernyataan Laik Etik ini berlaku selama kurun waktu tanggal 14 Mei 2021 sampai dengan tanggal 14 Mei 2022.
This declaration of ethics applies during the period Mei 14, 2021 until Mei 14, 2022.

2021
Professor and Chairperson,

Ilham Alifiar, M.Farm., Apt

LAMPIRAN 4

COA BAHAN TAMBAHAN

1. Aerosil

安徽山河药用辅料股份有限公司检验报告单

ANHUI SUNHERE PHARMACEUTICAL EXCIPIENTS CO., LTD.

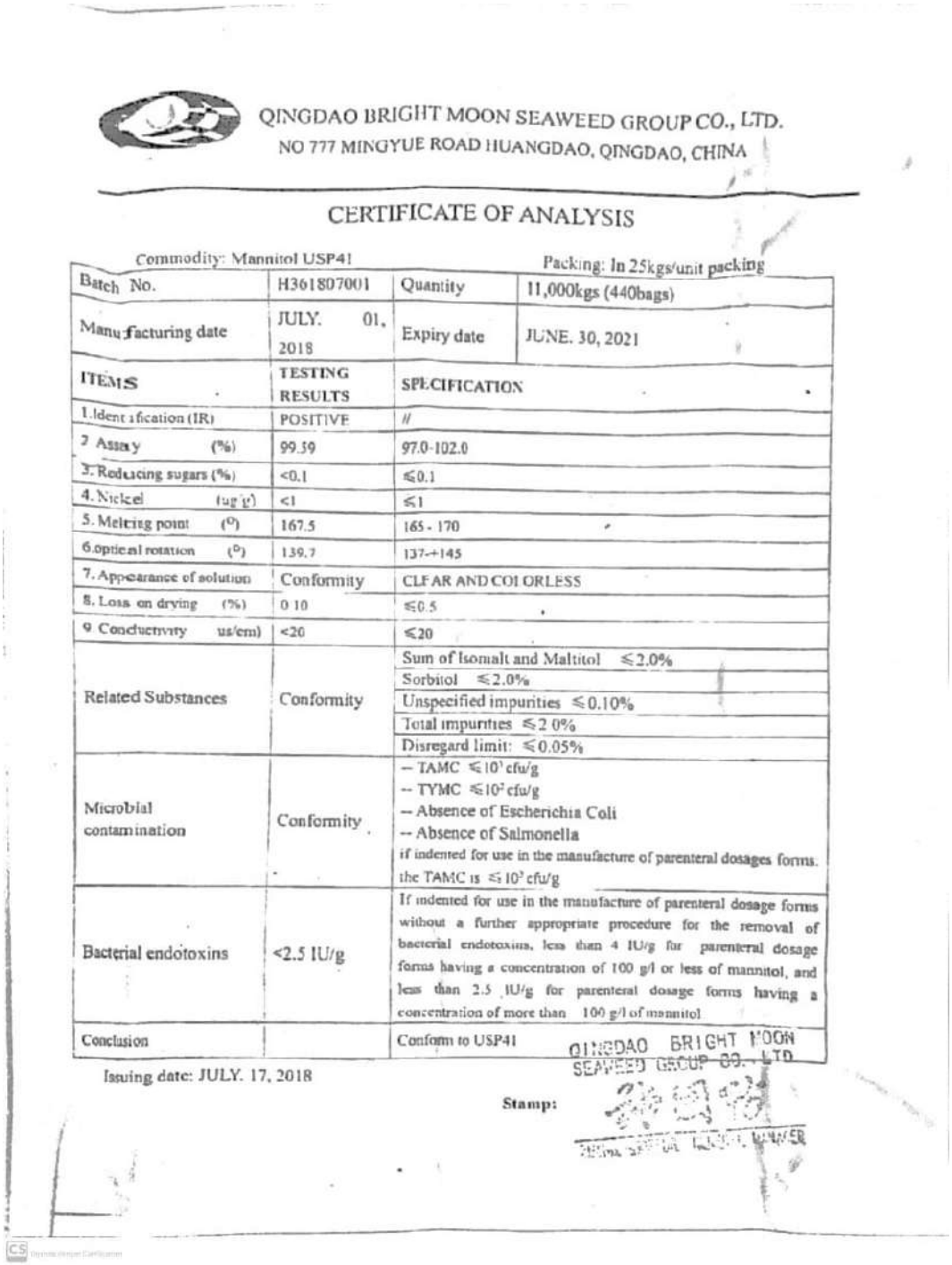
CERTIFICATE OF ANALYSIS

Product: Colloidal Silicon Dioxide / Aerosil

Batch No.	190819	REP DATE	SEP.02,2019
Packing	10kg/bag	MFG DATE	AUG.27,2019
Quantity	1800kg	EXP DATE	AUG.26,2022
Tests		Standard USP40NF35	Examinations
IdentificationA-B		Conforms	Conforms
Appearance		White colloidal powder	Conforms
PH		3.5-5.5	4.14
Loss on drying@ 105℃（%）		≤2.5%	0.40%
Loss on Ignition@ 1000±℃（%）		≤2.0%	0.57%
Assay		99.0%-100.5%	100.00%
Arsenic		≤8PPM	<8PPM
Microbial limi		Conforms	Conforms
Comclusion		It conforms to USP40NF35 standard.	

Analyst: 张瑞洁 Checker:曹岩 QA Manager: 刘大勇

2. Manitol



QINGDAO BRIGHT MOON SEAWEED GROUP CO., LTD.
NO 777 MINGYUE ROAD HUANGDAO, QINGDAO, CHINA

CERTIFICATE OF ANALYSIS

Commodity: Mannitol USP41 Packing: In 25kgs/unit packing

Batch No.	H361807001	Quantity	11,000kgs (440bags)
Manufacturing date	JULY. 01, 2018	Expiry date	JUNE. 30, 2021
ITEMS	TESTING RESULTS	SPECIFICATION	
1.Identification (IR)	POSITIVE	//	
2 Assay (%)	99.59	97.0-102.0	
3. Reducing sugars (%)	<0.1	≤0.1	
4. Nickel (ug/g)	<1	≤1	
5. Melting point (°)	167.5	165 - 170	
6.optical rotation (°)	139.7	137-+145	
7. Appearance of solution	Conformity	CLEAR AND COLORLESS	
8. Loss on drying (%)	0.10	≤0.5	
9 Conductivity us/cm)	<20	≤20	
Related Substances	Conformity	Sum of Isomalt and Maltitol ≤2.0%	
		Sorbitol ≤2.0%	
		Unspecified impurities ≤0.10%	
		Total impurities ≤2.0%	
		Disregard limit: ≤0.05%	
Microbial contamination	Conformity	-- TAMC $\leq 10^3$ cfu/g -- TYMC $\leq 10^2$ cfu/g -- Absence of Escherichia Coli -- Absence of Salmonella if indented for use in the manufacture of parenteral dosages forms. the TAMC is $\leq 10^2$ cfu/g	
Bacterial endotoxins	<2.5 IU/g	If indented for use in the manufacture of parenteral dosage forms without a further appropriate procedure for the removal of bacterial endotoxins, less than 4 IU/g for parenteral dosage forms having a concentration of 100 g/l or less of mannitol, and less than 2.5 IU/g for parenteral dosage forms having a concentration of more than 100 g/l of mannitol	
Conclusion		Conform to USP41	

Issuing date: JULY. 17, 2018

Stamp: QINGDAO BRIGHT MOON SEAWEED GROUP CO., LTD.

3. Magnesium Stearat

FACI ASIA PACIFIC PTE LTD
發芸亞太私人有限公司

CERTIFICATE OF ANALYSIS

Certificate Issue Date : 22 November 2019

Product: MAGNESIUM STEARATE PHAR.

Batch: MGS - V0430

Notes:
Special Customer Request Product
According to: the current version of the USP/NF/EP; JPXIII.
"Chloride, Sulphate and Heavy metals conform to the EP specification but not tested."
MICROBIOLOGICAL PARAMETERS EXCEPT.
Manufacturing Date: 06-November-2019
Expiry Date: 05-November-2022

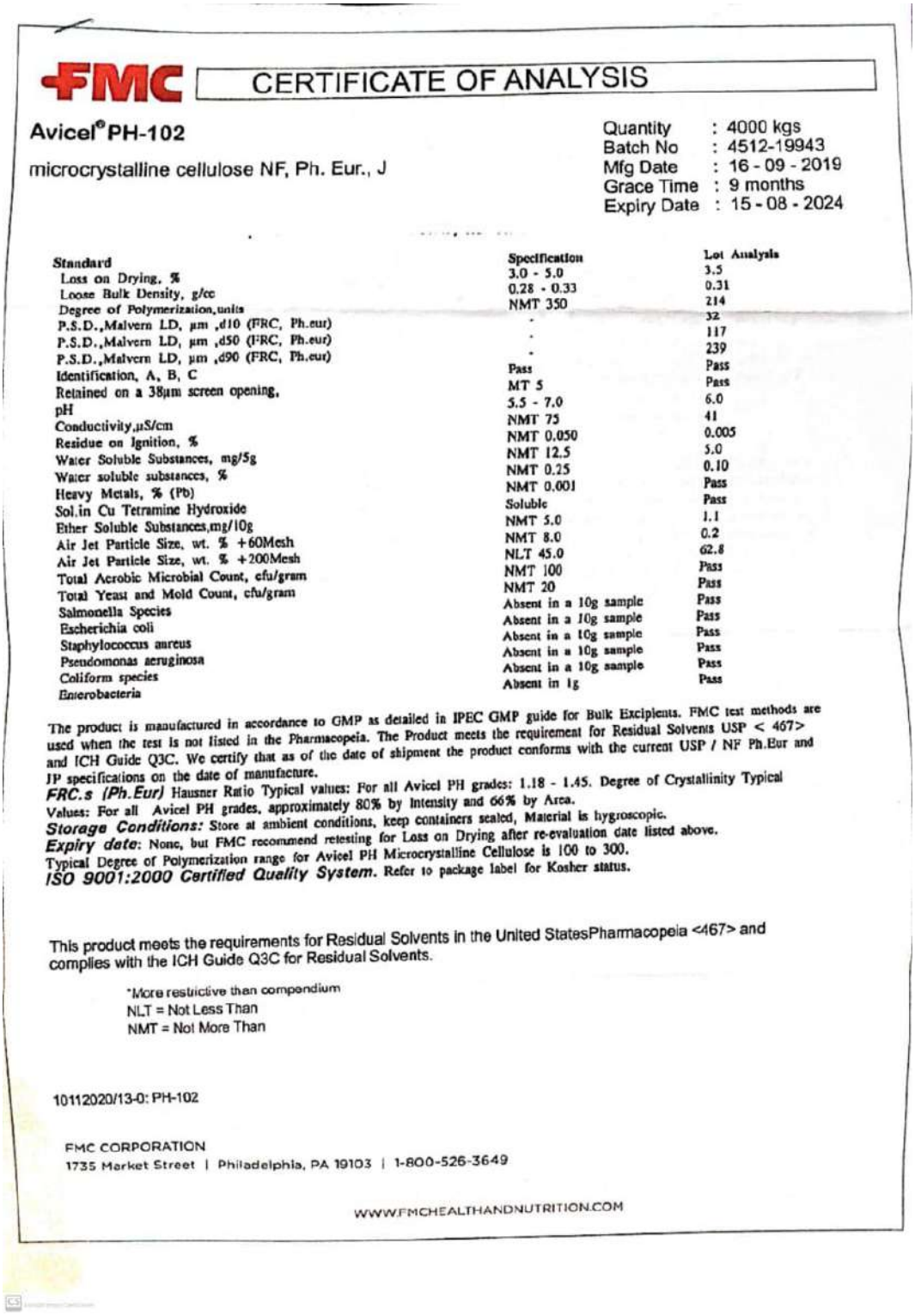
Aspect POWDER

Assay	Method	Unit	Limits Min	Limits Max	Result
Melting Point	MFACI050	°C	130	145	144.1
Oxide	MFACI060	%.	7.2	8.0	7.72
Moisture	MFACI020	%		<=4.0	2.5
Sieve Residue @ 200 Mesh	MFACI030	%		<=2.0	0.2
Bulk Density	MFACI040	g/l	140	180	180
Sulphates	MFACI470	%		<=0.3	0.3 max.
Chloride	MFACI300	ppm		<=1000	250 max.
Heavy Metals	MFACI390	ppm		<=10	<10
Lead	MFACI390	ppm		<=2	<2

LAB QUALITY CONTROL

Feroz Kassim
Quality Manager

4. Avicel PH 102



FMC

CERTIFICATE OF ANALYSIS

Avicel® PH-102

microcrystalline cellulose NF, Ph. Eur., J

Quantity : 4000 kgs
Batch No : 4512-19943
Mfg Date : 16 - 09 - 2019
Grace Time : 9 months
Expiry Date : 15 - 08 - 2024

Standard	Specification	Lot Analysis
Loss on Drying, %	3.0 - 5.0	3.5
Loose Bulk Density, g/cc	0.28 - 0.33	0.31
Degree of Polymerization,units	NMT 350	214
P.S.D.,Malvern LD, µm ,d10 (FRC, Ph.eur)	-	32
P.S.D.,Malvern LD, µm ,d50 (FRC, Ph.eur)	-	117
P.S.D.,Malvern LD, µm ,d90 (FRC, Ph.eur)	-	239
Identification, A, B, C	Pass	Pass
Retained on a 38µm screen opening,	MT 5	Pass
pH	5.5 - 7.0	6.0
Conductivity,µS/cm	NMT 75	41
Residue on Ignition, %	NMT 0.050	0.005
Water Soluble Substances, mg/5g	NMT 12.5	5.0
Water soluble substances, %	NMT 0.25	0.10
Heavy Metals, % (Pb)	NMT 0.001	Pass
Sol.in Cu Tetramine Hydroxide	Soluble	Pass
Ether Soluble Substances,mg/10g	NMT 5.0	1.1
Air Jet Particle Size, wt. % +60Mesh	NMT 8.0	0.2
Air Jet Particle Size, wt. % +200Mesh	NLT 45.0	62.8
Total Acrobic Microbial Count, cfu/gram	NMT 100	Pass
Total Yeast and Mold Count, cfu/gram	NMT 20	Pass
Salmonella Species	Absent in a 10g sample	Pass
Escherichia coli	Absent in a 10g sample	Pass
Staphylococcus aureus	Absent in a 10g sample	Pass
Pseudomonas aeruginosa	Absent in a 10g sample	Pass
Coliform species	Absent in a 10g sample	Pass
Enterobacteria	Absent in 1g	Pass

The product is manufactured in accordance to GMP as detailed in IPEC GMP guide for Bulk Excipients. FMC test methods are used when the test is not listed in the Pharmacopeia. The Product meets the requirement for Residual Solvents USP < 467> and ICH Guide Q3C. We certify that as of the date of shipment the product conforms with the current USP / NF Ph.Eur and JP specifications on the date of manufacture.

FRC.s (Ph.Eur) Hausner Ratio Typical values: For all Avicel PH grades: 1.18 - 1.45. Degree of Crystallinity Typical Values: For all Avicel PH grades, approximately 80% by Intensity and 66% by Area.

Storage Conditions: Store at ambient conditions, keep containers sealed, Material is hygroscopic.

Expiry date: None, but FMC recommend retesting for Loss on Drying after re-evaluation date listed above.

Typical Degree of Polymerization range for Avicel PH Microcrystalline Cellulose is 100 to 300.

ISO 9001:2000 Certified Quality System. Refer to package label for Kosher status.

This product meets the requirements for Residual Solvents in the United StatesPharmacopeia <467> and complies with the ICH Guide Q3C for Residual Solvents.

*More restrictive than compendium
NLT = Not Less Than
NMT = Not More Than

10112020/13-0: PH-102

FMC CORPORATION
1735 Market Street | Philadelphia, PA 19103 | 1-800-526-3649

WWW.FMCHEALTHANDNUTRITION.COM

Product Shelf-life / Re-evaluation Date

Store at ambient conditions. Keep containers sealed; material is very hygroscopic. Four (4) years from date of manufacture, if storage conditions stated above are observed. FMC recommends that after the above re-evaluation date, the customer perform the loss on drying and viscosity tests.

Safety Data Sheets (SDS) available on request.

Patents

FMC Corporation is owner and/or licensee of several patents related to its products. The products, processes and uses of such products referred to in this document may be covered by one or more patents or pending applications in the United States and/or other countries. FMC does not warrant against any infringement claim arising from the sale and/or use of any FMC product in combination with other materials; the use of any FMC product in the operation of any process; any FMC product manufactured to a customer's designs or specifications; or any FMC product manufactured by any process requested by a purchaser.

Product Suitability

The information contained in this document (as well as any advice or assistance) is provided by FMC only as a courtesy and is intended to be general in nature. Any uses suggested by FMC are presented only to assist our customers in exploring possible applications. FMC makes no warranty, express or implied, as to its accuracy or completeness, or the results to be obtained from such information, advice or assistance. Each customer is solely responsible for determining whether the FMC products are suitable for such customer's intended use, and for obtaining any necessary governmental registrations and approvals for such customer's production, marketing, sale, use and/or transportation of finished goods using or incorporating the FMC products.

10112020/13-0: PH-102

FMC CORPORATION
1735 Market Street | Philadelphia, PA 19103 | 1-800-526-3649

WWW.FMCHEALTHANDNUTRITION.COM

LAMPIRAN 5

HASIL PENELITIAN

Daun Mareme

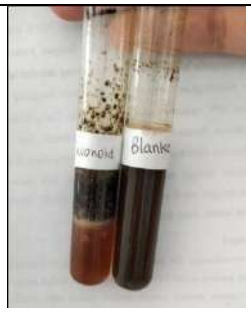
Asam Jawa

Simplisia Daun Mareme

Serbuk Daun Mareme dan Asam Jawa

Ekstrak Kental Daun Mareme

Ekstrak Kental Asam Jawa



Skrining Fitokimia Flavonoid Daun Mareme

Skrining Fitokimia Flavonoid Asam Jawa

Granul *Effervescent*

Evaluasi Laju Alir Granul

Evaluasi Sudut Diam Granul

 Indeks Tap	 Uji Kelembaban Granul	 Tablet *Effervescent*
 Uji Keseragaman Bobot Tablet	 Uji Keseragaman Ukuran	 Uji Kekerasan Tablet
 Uji Keregasan (Friabilitas)	 Uji Waktu Larut	 Uji pH

LAMPIRAN 6

PERHITUNGAN RANDEMEN DOSIS

1. Ekstrak Kental Daun Mareme (*Glochidion arborescens* Blume.)

Diketahui :

- Berat ekstrak kental : 157,68 gram
- Berat simplisia : 600 gram
- Randemen $= \frac{berat\ ekstrak\ kental\ (g)}{berat\ simplisia\ (g)} \times 100\%$

  $= \frac{157{,}68\ g}{600\ g} \times 100\%$

  = **26,28%**

2. Ekstrak Kental Asam Jawa (*Tamarindus indica* L.)

Diketahui :

- Berat ekstrak kental : 184,9 gram
- Berat simplisia : 500 gram
- Randemen $= \frac{berat\ ekstrak\ kental\ (g)}{berat\ simplisia\ (g)} \times 100\%$

  $= \frac{184{,}9\ g}{500\ g} \times 100\%$

  = **36,98%**

LAMPIRAN 7

PERHITUNGAN FORMULA

Formulasi tablet *effervescent* ekstrak etanol daun mareme dibuat dengan bobot 5000 mg.

1. Ekstrak Etanol Daun Mareme

- Dosis mencit : 0,000598 g/20 g BB mencit = 0,598 mg/20 g BB mencit
- Faktor konversi ke manusia : 387,9
- Dosis manusia = Dosis hewan uji × Faktor konversi
  = 0,598 mg × 387,9
  = 231,964 mg/70 kg BB manusia
  = **232 mg** (dibulatkan)

2. Ekstrak Asam Jawa (Konsentrasi 2,5% dan 7,5%)

- 2,5% = $\frac{2,5}{100}$ × 5000 mg
  = **125 mg**
- 7,5% = $\frac{7,5}{100}$ × 5000 mg
  = **375 mg**

3. Aspartam (Konsentrasi 5% dan 7%)

- 5% = $\frac{5}{100}$ × 5000 mg
  = **250 mg**
- 7% = $\frac{7}{100}$ × 5000 mg
  = **350 mg**

4. Natrium Bikarbonat (Konsentrasi 31,8%)

31,8% = $\frac{31,8}{100}$ × 5000 mg
= **1.590 mg**

5. Asam Sitrat (Konsentrasi 11,4%)

11,4% = $\frac{11,4}{100}$ × 5000 mg
= **570 mg**

6. Asam Tartrat (Konsentrasi 16,8%)

16,8% = $\frac{16,8}{100}$ × 5000 mg
= **840 mg**

7. PVP K-30 (Konsentrasi 3,5%)

3,5% = $\frac{3,5}{100}$ × 5000 mg
= **175 mg**

8. Avicel PH 102 (Konsentrasi 6%)

6% = $\frac{6}{100}$ × 5000 mg
= **300 mg**

9. Magnesium Stearat (Konsentrasi 1%)

1% $= \frac{1}{100} \times 5000$ mg

= **50 mg**

10. *Corn Starch* (5%)

5% $= \frac{5}{100} \times 5000$ mg

= **250 mg**

11. Manitol (q.s)

LAMPIRAN 8

PERHITUNGAN EVALUASI GRANUL *EFFERVESCENT*

1. Uji Waktu Alir

Persyaratan : 25 gram granul = 2,5 detik

Replikasi	Formula (detik)			
	I	II	III	IV
1	01,56	01,43	01,34	01,32
2	01,47	01,48	01,27	01,63
3	01,90	01,52	01,15	01,53
Mean	01,64	01,48	01,25	01,49
SD	0,227	0,045	0,096	0,158

Perhitungan :

a. Formula I

Rata-Rata = $\frac{01,56+ 01,47+ 01,90}{3}$ = 01,64 detik

b. Formula II

Rata-Rata = $\frac{01,43+ 01,48+ 01,52}{3}$ = 01,48 detik

c. Formula III

Rata-Rata = $\frac{01,34+ 01,27+ 01,15}{3}$ = 01,25 detik

d. Formula IV

Rata-Rata = $\frac{01,32+ 01,63+ 01,53}{3}$ = 01,49 detik

2. Sudut Diam

Persyaratan :

α = 25-30° : granul sangat mudah mengalir

α = 30-38° : granul mudah mengalir

α = ≥38° : granul kurang mengalir

Replikasi	Formula (°)			
	I	II	III	IV
1	31,59	38,66	29,51	34,92
2	32,21	31,38	27,83	29,51
3	38,90	31,72	31,88	34,22
Mean	34,24	33,92	29,74	32,88
SD	4,054	4,108	2,034	2,940

Perhitungan :

Rumus :Tan α = $\frac{2h}{d}$

a. Formula I

- h = 2 cm ; d = 6,5 cm

tan α = $\frac{2 \times 2}{6,5}$

= $\frac{4}{6.5}$

= 0,615

α = 31,59º

- h = 2 cm ; d = 6,3 cm

tan α = $\frac{2 \times 2}{6,3}$

= $\frac{4}{6.3}$

= 0,635

α = 32,21º

- h = 2,1 cm ; d = 5,2 cm

tan α = $\frac{2 \times 2,1}{5,2}$

= $\frac{4,2}{5,2}$

= 0,808

α = 38,90º

Rata-Rata = $\frac{31,59+ 32,21+ 38,90}{3}$= 34,24º

b. Formula II

- h = 2 cm ; d = 5 cm

tan α = $\frac{2 \times 2}{5}$

= $\frac{4}{5}$

= 0,8

α = 38,66º

- h = 1,8 cm ; d = 5,9 cm

tan α = $\frac{2 \times 1,8}{5,9}$

= $\frac{3,6}{5,9}$

= 0,610

α = 31,38º

- h = 1,7 cm ; d = 5,5 cm

tan α = $\frac{2 \times 1,7}{5,5}$

= $\frac{3,4}{5,5}$

= 0,618

α = 31,72º

Rata-Rata = $\frac{38,66+ 31,38+ 31,72}{3}$= 33,92º

c. Formula III

- h = 1,5 cm ; d = 5,3 cm

tan α = $\frac{2 \times 1,5}{5,3}$

= $\frac{3}{5,3}$

= 0,566

$\alpha = 29{,}51^{o}$

- h = 1,4 cm ; d = 5,3 cm

$\tan \alpha = \frac{2 \times 1{,}4}{5{,}3}$

$= \frac{2{,}8}{5.3}$

$= 0{,}528$

$\alpha = 27{,}83^{o}$

- h = 1,4 cm ; d = 4,5 cm

$\tan \alpha = \frac{2 \times 1{,}4}{4{,}5}$

$= \frac{2{,}8}{4{,}5}$

$= 0{,}622$

$\alpha = 31{,}88^{o}$

Rata-Rata = $\frac{29{,}51 + 27{,}83 + 31{,}88}{3} = 29{,}74^{o}$

d. Formula IV

- h = 1,5 cm ; d = 4,3 cm

$\tan \alpha = \frac{2 \times 1{,}5}{4{,}3}$

$= \frac{3}{4{,}3}$

$= 0{,}698$

$\alpha = 34{,}92^{o}$

- h = 1,5 cm ; d = 5,3 cm

$\tan \alpha = \frac{2 \times 1{,}5}{5{,}3}$

$= \frac{3}{5{,}3}$

$= 0{,}566$

$\alpha = 29{,}51^{o}$

- h = 1,7 cm ; d = 5 cm

$\tan \alpha = \frac{2 \times 1{,}7}{5}$

$= \frac{3{,}4}{5}$

$= 0{,}68$

$\alpha = 34{,}22^{o}$

Rata-Rata = $\frac{34{,}92 + 29{,}51 + 34{,}22}{3} = 32{,}89^{o}$

3. Indeks Kompresibilitas

Persyaratan : 11-15%

Ketukan : 100 kali

Replikasi	Formula (%)			
	I	II	III	IV
1	20,43	15,91	16,00	8,45
2	24,47	16,85	13,89	14,67
3	20,88	16,10	12,86	16,00
Mean	21,93	16,29	14,25	13,04
SD	2,213	0,501	1,602	4,029

Perhitungan :

Rumus : I = $\frac{Vo - Vtap}{Vo} \times 100\%$

a. Formula I

- V_0 = 93 mL ; V_{100} = 74 mL

  I = $\frac{93-74}{93} \times 100\% = 20,43\%$
- V_0 = 94 mL ; V_{100} = 71 mL

  I= $\frac{94-71}{94} \times 100\% = 24,47\%$
- V_0 = 91 mL ; V_{100}= 72 mL

  I = $\frac{91-72}{91} \times 100\% = 20,88\%$

Rata-Rata = $\frac{20,43 + 24,47 + 20,88}{3}$= 21,93%

b. Formula II

- V_0 = 88 mL ; V_{100} = 74 mL

  I = $\frac{88-74}{88} \times 100\% = 15,91\%$
- V_0 = 89 mL ; V_{100}= 74 mL

  I = $\frac{89-74}{89} \times 100\% = 16,85\%$
- V_0 = 87 mL ; V_{100} = 73 mL

  I = $\frac{87-73}{87} \times 100\% = 16,10\%$

Rata-Rata = $\frac{15,91 + 16,85 + 16,10}{3}$= 16,29%

c. Formula III

- V_0 = 75 mL ; V_{100}= 63 mL

  I = $\frac{75-63}{75} \times 100\% = 16,00\%$
- V_0 = 72 mL ; V_{100}= 62 mL

  I = $\frac{72-62}{72} \times 100\% = 13,89\%$
- V_0 = 70 mL ; V_{100}= 61 mL

  I = $\frac{70-61}{70} \times 100\% = 12,86\%$

Rata-Rata = $\frac{16,00 + 13,89 + 12,86}{3}$=14,25%

d. Formula IV

- V_0 = 71 mL ; V_{100}= 65 mL

  I = $\frac{71-65}{71}$ × 100% = 8,45%
- V_0 = 75 mL ; V_{100}= 64 mL

  I = $\frac{75-64}{64}$ × 100% = 14,67%
- V_0 = 75 mL ; V_{100}= 63 mL

  I = $\frac{75-63}{75}$ × 100% = 16,00%

Rata-Rata = $\frac{8,45+\ 14,67+\ 16,00}{3}$= 13,04%

4. Uji Kandungan Lembab

Persyaratan : 0,4-0,7%

Replikasi	Formula (%)			
	I	**II**	**III**	**IV**
1	0,30	0,40	0,40	0,40
2	0,10	0,40	0,40	0,60
3	0,40	0,50	0,20	0,50
Mean	0,27	0,43	0,33	0,50
SD	0,153	0,058	0,115	0,100

Perhitungan :

a. Formula I

Rata-Rata = $\frac{0,3+\ 0,1+\ 0,4}{3}$ = 0,27%

b. Formula II

Rata-Rata = $\frac{0,4+\ 0,4+\ 0,5}{3}$ = 0,43%

c. Formula III

Rata-Rata = $\frac{0,4+\ 0,4+\ 0,2}{3}$ = 0,33%

d. Formula IV

Rata-Rata = $\frac{0,4+\ 0,6+\ 0,5}{3}$ = 0,50%

LAMPIRAN 9

PERHITUNGAN EVALUASI TABLET *EFFERVESCENT*

1. Keseragaman Ukuran

Persyaratan : Diameter tablet tidak lebih dari 3 kali dan tidak kurang dari $1\frac{1}{3}$ tebal tablet.

Replikasi	Formula (cm)							
	I		II		III		IV	
	Diameter	Tebal	Diameter	Tebal	Diameter	Tebal	Diameter	Tebal
1	2,22	0,53	2,22	0,52	2,22	0,56	2,21	0,51
2	2,22	0,55	2,21	0,58	2,21	0,51	2,21	0,52
3	2,24	0,61	2,22	0,51	2,22	0,54	2,22	0,56
4	2,22	0,55	2,22	0,54	2,22	0,52	2,22	0,55
5	2,22	0,54	2,22	0,52	2,22	0,51	2,22	0,53
6	2,21	0,51	2,22	0,58	2,21	0,51	2,21	0,53
7	2,21	0,66	2,22	0,52	2,22	0,54	2,22	0,54
8	2,21	0,61	2,22	0,53	2,22	0,53	2,22	0,56
9	2,21	0,51	2,21	0,54	2,21	0,54	2,21	0,55
10	2,21	0,51	2,21	0,51	2,21	0,55	2,21	0,51
11	2,21	0,61	2,22	0,52	2,22	0,51	2,22	0,52
12	2,21	0,52	2,22	0,53	2,21	0,52	2,21	0,54
13	2,22	0,54	2,21	0,54	2,21	0,56	2,21	0,56
14	2,22	0,52	2,22	0,55	2,22	0,64	2,22	0,53
15	2,22	0,56	2,21	0,51	2,22	0,52	2,22	0,52
16	2,22	0,54	2,21	0,51	2,21	0,51	2,21	0,54
17	2,21	0,53	2,22	0,51	2,21	0,52	2,21	0,53
18	2,21	0,51	2,21	0,51	2,22	0,54	2,22	0,53
19	2,21	0,53	2,22	0,52	2,22	0,56	2,22	0,54
20	2,21	0,57	2,21	0,51	2,21	0,52	2,21	0,51
Mean	2,22	0,55	2,22	0,53	2,22	0,54	2,21	0,53
SD	0,008	0,042	0,005	0,022	1,005	0,030	3,005	0,016

Perhitungan :

a. Formula I

Diameter = 2,22 ; Tebal = 0,55

Diameter $< 3 \times$ tebal tablet

= 2,22 $< 3 \times 0{,}55$

= 2,22 $> 1{,}65$ (tidak memenuhi)

Diameter $> 1\frac{1}{3} \times$ tebal tablet

= 2,21 $> 1\frac{1}{3} \times 0{,}55$

= 2,21 $> 0{,}715$ (memenuhi)

b. Formula II

Diameter = 2,22 ; Tebal = 0,53

Diameter $< 3 \times$ tebal tablet

= 2,22 $< 3 \times 0{,}53$

= 2,22 $> 1{,}59$ (tidak memenuhi)

Diameter $>1\frac{1}{3}$ × tebal tablet

= 2,21 $>1\frac{1}{3}$ × 0,59

= 2,21 > 0,689 (memenuhi)

c. Formula III

Diameter = 2,22 ; Tebal = 0,54

Diameter < 3 × tebal tablet

= 2,22 < 3 × 0,54

= 2,22 > 1,62 (tidak memenuhi)

Diameter $>1\frac{1}{3}$ × tebal tablet

= 2,21 $>1\frac{1}{3}$ × 0,54

= 2,21 > 0,702 (memenuhi)

d. Formula IV

Diameter = 2,21 ; Tebal = 0,53

Diameter < 3 × tebal tablet

= 2,22 < 3 × 0,53

= 2,22 > 1,59 (tidak memenuhi)

Diameter $>1\frac{1}{3}$ × tebal tablet

= 2,21 $>1\frac{1}{3}$ × 0,59

= 2,21 > 0,689 (memenuhi)

2. Keseragaman Bobot

Syarat : Tidak boleh ada 2 tablet melebihi rata-rata yang ditetapkan pada kolom A dan tidak boleh ada 1 tablet pun yang melewati rata-rata yang ditetapkan kolom B.

Replikasi	Formula (gram)			
	I	II	III	IV
1	2,48	2,51	2,52	2,48
2	2,49	2,50	2,51	2,50
3	2,48	2,52	2,50	2,48
4	2,48	2,50	2,50	2,52
5	2,49	2,52	2,50	2,51
6	2,52	2,51	2,52	2,51
7	2,48	2,50	2,49	2,51
8	2,48	2,51	2,52	2,52
9	2,50	2,50	2,51	2,50
10	2,51	2,51	2,51	2,49
11	2,52	2,48	2,48	2,49
12	2,50	2,50	2,52	2,49
13	2,52	2,50	2,50	2,51
14	2,51	2,50	2,52	2,51
15	2,50	2,52	2,52	2,51
16	2,50	2,50	2,51	2,49
17	2,50	2,49	2,50	2,48
18	2,51	2,52	2,49	2,48

19	2,51	2,52	2,50	2,48
20	2,52	2,48	2,52	2,49
Mean	2,50	2,50	2,51	2,47
SD	0,015	0,012	0,012	0,014
CV (%)	0,60	0,48	0,48	0,57

Karena tablet ≥300 mg maka range kolom A (5%) dan B (10%).

a. Formula I

Bobot Tablet (g)	Jumlah
2,48	5
2,49	2
2,50	5
2,51	4
2,52	4

Perhitungan :

Rata-Rata = $\frac{(5\times2,48) + (2\times2,49) + (5\times2,50) +(4\times2,51) + (4\times2,52)}{20}$

= $\frac{12,4 + 4,98 + 12,5 +10,04 + 10,08}{20}$

= $\frac{50}{20}$ = 2,50 gram/2.500 mg

Range untuk 5% bobot tablet = 5% × X

= 5% × 2.500 mg

= 125 mg

Range untuk 10% bobot tablet = 10% × X

= 10% × 2.500 mg

= 250 mg

Tidak ada tablet yang melewati range 5% = 2.500 ± 125 mg

= 2.375 - 2.625 mg

Tidak ada tablet yang melewati range 10% = 2.500 ± 250

= 2.250 - 2.750 mg

CV= $\frac{SD}{X}$ × 100%

CV = $\frac{0,015}{2,50}$ × 100% = 0,60%

b. Formula II

Bobot Tablet (g)	Jumlah
2,48	2
2,49	1
2,50	8
2,51	5
2,52	4

Perhitungan :

Rata-Rata = $\frac{(2\times2,48) + (1\times2,49) + (8\times2,50) +(5\times2,51) + (4\times2,52)}{20}$

= $\frac{4,96 + 2,49 + 20 +12,55 + 10,08}{20}$

= $\frac{50,08}{20}$ = 2,504 gram/2.504 mg

Range untuk 5% bobot tablet = 5% × X

= 5% × 2.504 mg

= 125,2 mg

Range untuk 10% bobot tablet = 10% × X

= 10% × 2.504 mg

= 250,4 mg

Tidak ada tablet yang melewati range 5% = 2.504 ± 125,2 mg

= 2.378,8 - 2.629,2 mg

Tidak ada tablet yang melewati range 10% = 2.504 ± 250,4

= 2.253,6 - 2.754,4 mg

CV = $\frac{SD}{X}$ × 100%

CV = $\frac{0,012}{2,50}$ × 100% = 0,48%

c. Formula III

Bobot Tablet (g)	Jumlah
2,48	1
2,49	2
2,50	6
2,51	5
2,52	6

Perhitungan :

Rata-Rata = $\frac{(1\times2,48) + (2\times2,49) + (6\times2,50) +(5\times2,51) + (6\times2,52)}{20}$

= $\frac{2,48 + 4,98 + 15 +12,55 + 15,12}{20}$

= $\frac{50,13}{20}$ = 2,507 gram/2.507 mg

Range untuk 5% bobot tablet = 5% × X

= 5% × 2.507 mg

= 125,35 mg

Range untuk 10% bobot tablet = 10% × X

= 10% × 2.504 mg

= 250,7 mg

Tidak ada tablet yang melewati range 5% = 2.507 ± 125,35 mg

= 2.381,65 - 2.632,35 mg

Tidak ada tablet yang melewati range 10% = 2.507 ± 250,7

= 2.256,3 - 2.757,7 mg

CV = $\frac{SD}{X}$ × 100%

CV = $\frac{0,012}{2,51}$ × 100% = 0,48%

d. Formula IV

Bobot Tablet (g)	Jumlah
2,48	5
2,49	5
2,50	2
2,51	6
2,52	2

Perhitungan :

Rata-Rata = $\frac{(5\times2,48) + (5\times2,49) + (2\times2,50) + (6\times2,51) + (2\times2,52)}{20}$

= $\frac{12,4 + 12,45 + 5 + 15,06 + 4,5}{20}$

= $\frac{49,41}{20}$ = 2,47 gram/2.470 mg

Range untuk 5% bobot tablet = 5% × X

= 5% × 2.470 mg

= 123,5 mg

Range untuk 10% bobot tablet = 10% × X

= 10% × 2.470 mg

= 247 mg

Tidak ada tablet yang melewati range 5% = 2.470 ± 123,5 mg

= 2.346,5 – 2.593,5 mg

Tidak ada tablet yang melewati range 10% = 2.470 ± 247

= 2.223 – 2.717 mg

CV = $\frac{SD}{X}$ × 100%

CV = $\frac{0,014}{2,47}$ × 100% = 0,57%

3. Kekerasan Tablet

Syarat : Kekerasan minimum yang sesuai untuk tablet adalah sebesar 4 kg.

Replikasi	Formula (kg/cm^2)			
	I	**II**	**III**	**IV**
1	7	3	3	5
2	3	7	3	3
3	4	4	4	5
4	5	4	5	4
5	3	5	5	4
6	3	3	4	4
7	3	4	4	4
8	5	5	4	4
9	3	4	6	4
10	5	5	4	5
Mean	4,1	4,4	4,2	4,2
SD	1,370	1,174	0,919	0,632

Perhitungan :

a. Formula I

Rata-Rata = $\frac{7+3+4+5+3+3+3+5+3+5}{10}$ = 4,1 kg/cm^2

b. Formula II

Rata-Rata = $\frac{3+7+4+4+5+3+4+5+4+5}{10}$ = 4,4 kg/cm^2

c. Formula III

Rata-Rata = $\frac{3+3+4+5+5+4+4+4+6+4}{10}$ = 4,2 kg/cm^2

d. Formula IV

Rata-Rata = $\frac{5+3+5+4+4+4+4+4+4+5}{10}$ = 4,2 kg/cm^2

4. Kerapuhan (Friabilitas)

Syarat : <1%

Replikasi	Formula (%)			
	I	II	III	IV
1	2,871	0,809	0,478	0,674
2	4,022	1,773	1,478	0,794
3	3,567	0,897	2,546	1,632
Mean	3,487	1,160	1,501	1,033
SD	0,580	0,533	1,034	0,522

Perhitungan :

Rumus : F = $\frac{Berat\ awal - Berat\ akhir}{Berat\ awal} \times 100\%$

a. Formula I

- Berat awal : 51,54 gram ; Berat akhir: 50,06 gram

  F = $\frac{51,54-50,06}{51,54} \times 100\%$ = 2,871%
- Berat awal: 50,97 gram ; Berat akhir : 48,92 gram

  F = $\frac{50,97-48,92}{50,97} \times 100\%$ = 4,022%
- Berat awal: 51,85 gram ; Berat akhir : 50,01 gram

  F = $\frac{51,85-50,01}{51,85} \times 100\%$ = 3,567%

Rata-Rata = $\frac{2,871+4,022+3,678}{3}$ = 3,478 %

b. Formula II

- Berat awal : 50,65 gram ; Berat akhir : 50,24 gram

  F = $\frac{50,65-50,24}{50,65} \times 100\%$ = 0,809%
- Berat awal : 50,75 gram ; Berat akhir : 49,85 gram

  F = $\frac{50,75-49,85}{50,75} \times 100\%$ = 1,773%
- Berat awal : 50,85 gram ; Berat akhir : 50,02 gram

  F = $\frac{50,85-50,02}{50,85} \times 100\%$ = 0,897%

Rata-Rata = $\frac{0,809+1,773+0,879}{3}$ = 1,160 %

c. Formula III

- Berat awal: 50,20 gram ; Berat akhir : 49,96 gram

  F = $\frac{50,20-49,96}{50,20} \times 100\%$ = 0,478%
- Berat awal: 50,73 gram ; Berat akhir : 49,98 gram

  F = $\frac{50,73-49,98}{50,73} \times 100\%$ = 1,478%
- Berat awal: 50,66 gram ; Berat akhir : 49,37 gram

F = $\frac{50,66-49,37}{50,66}$ × 100% = 2,546%

Rata-Rata = $\frac{0,478+1,478+2,546}{3}$ = 1,501 %

d. Formula IV

- Berat awal: 50,44 gram ; Berat akhir : 50,10 gram

  F = $\frac{50,44-50,10}{50,44}$ × 100% = 0,674%

- Berat awal: 50,37 gram ; Berat akhir : 49,97gram

  F = $\frac{50,37-49,97}{50,37}$ × 100% = 0,794%

- Berat awal: 50,85 gram ; Berat akhir : 50,02 gram

  F = $\frac{50,85-50,02}{50,85}$ × 100% = 1,632%

Rata-Rata = $\frac{0,674+0,794+1,632}{3}$ = 1,033 %

5. Waktu Larut

Syarat : Tablet yang baik akan terlarut cepat waktu <5 menit.

Replikasi	Formula (menit)			
	I	II	III	IV
1	1,48	2,40	1,51	3,02
2	2,21	3,51	0,44	1,51
3	3,05	2,34	1,01	2,14
4	3,26	2,42	1,04	1,14
5	3,56	3,10	1,07	1,59
Mean	2,71	2,75	1,01	1,88
SD	0,852	0,524	0,381	0,731

Perhitungan :

a. Formula I

Rata-Rata = $\frac{1,48+2,21+3,05+3,26+3,56}{5}$ = 2,71 menit

b. Formula II

Rata-Rata = $\frac{2,40+3,51+2,34+2,42+3,10}{5}$ = 2,75 menit

c. Formula III

Rata-Rata = $\frac{1,51+0,44+1,01+1,04+1,07}{5}$ = 1,01 menit

d. Formula IV

Rata-Rata = $\frac{3,02+1,51+2,14+1,14+1,59}{5}$ = 1,88 menit

6. pH

Syarat : 6-7

Replikasi	Formula			
	I	II	III	IV
1	5,05	5,75	4,97	4,92
2	5,06	5,76	4,96	4,92
3	5,03	5,76	4,97	4,92
Mean	5,05	5,76	4,97	4,92
SD	0,015	0,006	0,006	0,000

Perhitungan :

a. Formula I

Rata-Rata = $\frac{5,05+5,06+5,03}{3}$ = 5,05

b. Formula II

Rata-Rata = $\frac{5,75+5,76+5,76}{3}$ = 5,76

c. Formula III

Rata-Rata = $\frac{4,97+4,96+4,97}{3}$ = 4,97

d. Formula IV

Rata-Rata = $\frac{4,92+4,92+4,92}{3}$ = 4,92

7. Uji Tingkat Kesukaan

Skor	
1	Sangat Tidak Suka
2	Tidak Suka
3	Suka
4	Sangat Suka

a. Penampilan Tablet

Penampilan Tablet				
Responden	Skor			
	Formula I	Formula II	Formula III	Formula IV
1	4	4	4	4
2	3	3	4	3
3	3	2	3	4
4	3	4	1	3
5	3	3	3	3
6	3	3	4	3
7	3	4	3	3
8	3	4	2	2
9	3	4	3	3
10	3	3	3	3
11	2	2	2	2
12	2	3	3	3
13	3	3	3	3
14	3	3	3	2
15	3	3	3	3
16	2	3	2	3
17	3	3	3	3
18	4	4	2	3
19	3	3	3	2
20	2	2	2	2
21	3	2	3	3
22	3	4	4	4
23	3	3	3	4
24	2	3	2	2
25	3	3	2	3
Total	72	78	70	73
Mean	2.88	3.12	2.80	2.92
SD	0.526	0.666	0.764	0.640

Skor	Formula I		Formula II		Formula III		Formula IV	
	Jumlah Responden	%	Jumlah Responden	%	Jumlah Responden	%	Jumlah Responden	%
1	0	0	0	0	1	4	0	0
2	5	20	4	16	7	28	6	24
3	18	72	14	56	13	52	15	60
4	2	8	7	28	4	16	4	16
Total	25	100	25	100	25	100	25	100

b. Larutan

Responden	Larutan			
	Skor			
	Formula I	Formula II	Formula III	Formula IV
1	1	3	4	3
2	1	2	2	3
3	2	3	1	1
4	1	2	3	4
5	2	2	2	2
6	3	2	3	2
7	1	2	3	2
8	1	3	1	3
9	2	3	3	3
10	2	3	4	2
11	2	3	4	3
12	2	3	3	1
13	1	2	3	2
14	2	2	3	3
15	2	2	2	3
16	2	1	3	3
17	1	1	3	2
18	1	2	3	2
19	1	1	2	3
20	2	3	4	1
21	2	2	3	3
22	2	2	3	1
23	1	1	2	1
24	2	2	2	3
25	1	1	1	1
Total	40	53	67	57
Mean	1,60	2,12	2,68	2,28
SD	0,577	0,726	0,900	0,891

Skor	Formula I		Formula II		Formula III		Formula IV	
	Jumlah Responden	%	Jumlah Responden	%	Jumlah Responden	%	Jumlah Responden	%
1	11	44	5	20	3	12	6	24
2	13	52	12	48	6	24	7	28
3	1	4	8	32	12	48	11	44
4	0	0	0	0	4	16	1	4
Total	25	100	25	100	25	100	25	100

c. Warna

Warna				
Responden	**Skor**			
	Formula I	**Formula II**	**Formula III**	**Formula IV**
1	1	3	1	3
2	3	3	3	4
3	3	3	3	2
4	3	1	2	4
5	1	3	2	3
6	3	3	3	3
7	3	3	2	3
8	4	2	4	3
9	3	3	4	4
10	2	2	3	2
11	3	3	3	3
12	3	3	2	3
13	3	3	3	2
14	2	3	3	3
15	3	2	3	2
16	2	2	3	2
17	2	2	2	2
18	2	3	3	3
19	3	3	3	2
20	3	3	1	1
21	3	4	2	4
22	3	2	2	3
23	1	3	4	2
24	1	3	2	1
25	2	4	2	3
Total	62	69	65	67
Mean	2,48	2,76	2,60	2,68
SD	0,823	0,663	0,816	0,852

Skor	**Formula I**		**Formula II**		**Formula III**		**Formula IV**	
	Jumlah Responden	**%**	**Jumlah Responden**	**%**	**Jumlah Responden**	**%**	**Jumlah Responden**	**%**
1	4	16	1	4	2	8	2	8
2	6	24	6	20	9	36	8	32
3	14	56	16	64	11	44	11	44
4	1	4	2	4	3	12	4	16
Total	25	100	25	100	25	100	25	100

d. Aroma

Aroma				
Responden	**Skor**			
	Formula I	**Formula II**	**Formula III**	**Formula IV**
1	3	3	2	3
2	2	2	2	3
3	4	3	4	3
4	3	4	1	2
5	2	3	2	3
6	1	3	2	2
7	1	2	1	3
8	2	2	2	2
9	3	3	3	3
10	3	2	2	2
11	3	4	3	3
12	1	2	1	3
13	2	3	1	2
14	2	3	3	2
15	2	2	3	2
16	2	3	1	3
17	3	3	2	2
18	1	3	3	1
19	2	3	3	2
20	1	2	1	1
21	2	2	1	3
22	2	3	1	2
23	1	1	2	1
24	1	2	4	2
25	3	4	3	3
Total	52	67	53	58
Mean	2,08	2,68	2,12	2,32
SD	0,862	0,748	0,971	0,690

Skor	**Formula I**		**Formula II**		**Formula III**		**Formula IV**	
	Jumlah Responden	**%**	**Jumlah Responden**	**%**	**Jumlah Responden**	**%**	**Jumlah Responden**	**%**
1	7	28	1	4	8	32	3	12
2	10	40	9	36	8	32	11	44
3	7	28	12	56	7	28	11	44
4	1	4	3	24	2	8	0	0
Total	25	100	25	100	25	100	25	100

e. Rasa

Rasa				
Responden	**Skor**			
	Formula I	**Formula II**	**Formula III**	**Formula IV**
1	2	2	3	3
2	3	4	3	4
3	4	4	1	3
4	3	4	2	1
5	2	1	2	3
6	1	1	1	3
7	2	3	1	2
8	2	2	1	2
9	3	4	4	4
10	3	4	2	2
11	4	3	4	4
12	1	2	1	1
13	3	4	2	2
14	1	3	2	3
15	2	3	2	3
16	1	3	1	2
17	2	3	1	1
18	1	3	1	2
19	1	2	2	3
20	1	3	2	2
21	3	3	3	2
22	1	2	1	3
23	2	3	1	3
24	1	3	1	1
25	3	4	4	4
Total	52	73	48	63
Mean	2,08	2,92	1,92	2,52
SD	0,997	0,909	1,038	0,963

Skor	**Formula I**		**Formula II**		**Formula III**		**Formula IV**	
	Jumlah Responden	**%**	**Jumlah Responden**	**%**	**Jumlah Responden**	**%**	**Jumlah Responden**	**%**
1	9	36	2	8	11	44	4	16
2	7	28	5	20	8	32	8	32
3	7	28	11	44	3	12	9	36
4	2	8	7	28	3	12	4	16
Total	25	100	25	100	25	100	25	100

LAMPIRAN 10

KUISIONER PENELITIAN

KUISIONER PENELITIAN

UJI TINGKAT KESUKAAN

TABLET *EFFERVESCENT* EKSTRAK ETANOL DAUN MAREME

No. Responden : 06 **Tanggal :** 18 Mei 2021

A. Identitas Umum Responden

Nama : Rina Mutiara Irsani

Usia : 21

Jenis Kelamin : ☐ Laki-laki ☑ Perempuan

B. Petunjuk Pengisian

1. Bacalah doa sebelum mengisi lembar kuisioner.
2. Bacalah setiap pertanyaan dengan seksama.
3. Berilah tanda ceklis (√) pada setiap kolom sesuai jawaban anda.
4. Anda akan diberikan 4 formula tablet *effervescent* dengan konsentrasi pemanis aspartam dan asam jawa yang berbeda. Anda diharapkan untuk memberikan penilaian terhadap penampilan, kelarutan, warna, aroma dan rasa dari sampel yang diberikan sesuai dengan tingkat kesukaan Anda. Penilaian didasarkan atas skor 1-4.

   1 = Sangat Tidak Suka **3 = Suka**

   2 = Tidak Suka **4 = Sangat Suka**
5. Berilah jawaban yang jujur karena jawaban yang diberikan akan sangat membantu peneliti dalam menyelesaikan penelitian.
6. Hal-hal yang kurang jelas dapat ditanyakan pada peneliti.

C. Kuisioner Pengetahuan Responden

1.	Apakah anda tahu apa itu tablet *effervescent* ?	☑ Ya ☐ Tidak
2.	Apakah anda pernah mengkonsumsi tablet *effervescent* sebelumnya ?	☑ Ya ☐ Tidak
3.	Jika pernah, untuk penggunaan apa tablet *effervescent* tersebut?	☑ Multivitamin ☐ Suplemen Zat Besi ☐ Imunomodulator ☐ Suplemen Tulang dan Gigi ☐ Panas Dalam ☐ Antidiabetes ☐ Lainnya ……
4.	Contoh produk tablet *effervescent* yang pernah anda konsumsi?	☑ Enervon-C ☐ Protecal Solid ☑ CDR ☐ Redoxon ☐ Jesscool ☐ Imboost ☐ Lainnya ……

D. **Kuisioner Penilaian Tablet *Effervescent***

1. **Tablet *Effervescent* 1 (Formula 1)**

Parameter Organoleptik	Skor				Saran dan Komentar
	1	2	3	4	
Penampilan Tablet			✓		Sebaiknya larutan dibuat lebih halus, aroma dan rasa ditambah dengan buah-buahan.
Larutan			✓		
Warna			✓		
Aroma	✓				
Rasa	✓				

2. **Tablet *Effervescent* 2 (Formula 2)**

Parameter Organoleptik	Skor				Saran dan Komentar
	1	2	3	4	
Penampilan Tablet			✓		Sebaiknya ditambah dengan rasa buah agar lebih enak
Larutan		✓			
Warna			✓		
Aroma			✓		
Rasa		✓	✓		

3. **Tablet *Effervescent* 3 (Formula 3)**

Parameter Organoleptik	Skor				Saran dan Komentar
	1	2	3	4	
Penampilan Tablet				✓	Sebaiknya rasa dan aroma ditambah dengan buah-buahan.
Larutan			✓		
Warna			✓		
Aroma		✓			
Rasa	✓				

4. **Tablet *Effervescent* 4 (Formula 4)**

Parameter Organoleptik	Skor				Saran dan Komentar
	1	2	3	4	
Penampilan Tablet			✓		Sebaiknya larutan dibuat lebih halus agar nyaman diminum
Larutan		✓			
Warna			✓		
Aroma		✓			
Rasa			✓		

Tablet *effervescent* yang paling disukai (2)

Tandan Tangan Responden

LAMPIRAN 11

ANALISIS DATA MENGGUNAKAN SPSS METODE *FRIEDMAN TEST*

1. Penampilan Tablet

NPar Tests

[DataSet0]

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
Penampilan FI	25	2.88	.526	2	4	3.00	3.00	3.00
Penampilan FII	25	3.12	.666	2	4	3.00	3.00	4.00
Penampilan FIII	25	2.80	.764	1	4	2.00	3.00	3.00
Penampilan FIV	25	2.92	.640	2	4	2.50	3.00	3.00

Friedman Test

Ranks

	Mean Rank
Penampilan FI	2.36
Penampilan FII	2.80
Penampilan FIII	2.38
Penampilan FIV	2.46

Test Statistics[a]

N	25
Chi-Square	4.060
df	3
Asymp. Sig.	.255

a. Friedman Test

2. Larutan *Effervescent*

NPar Tests

[DataSet0]

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
Larutan FI	25	1.60	.577	1	3	1.00	2.00	2.00
Larutan FII	25	2.12	.726	1	3	2.00	2.00	3.00
Larutan FIII	25	2.68	.900	1	4	2.00	3.00	3.00
Larutab FIV	25	2.28	.891	1	4	1.50	2.00	3.00

Friedman Test

Ranks

	Mean Rank
Larutan FI	1.72
Larutan FII	2.36
Larutan FIII	3.24
Larutab FIV	2.68

Test Statistics[a]

N	25
Chi-Square	23.472
df	3
Asymp. Sig.	.000

a. Friedman Test

3. Warna

NPar Tests

[DataSet0]

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
Warna FI	25	2.48	.823	1	4	2.00	3.00	3.00
Warna FII	25	2.76	.663	1	4	2.00	3.00	3.00
Warna FIII	25	2.60	.816	1	4	2.00	3.00	3.00
Warna FIV	25	2.68	.852	1	4	2.00	3.00	3.00

Friedman Test

Ranks

	Mean Rank
Warna FI	2.30
Warna FII	2.64
Warna FIII	2.52
Warna FIV	2.54

Test Statistics[a]

N	25
Chi-Square	1.400
df	3
Asymp. Sig.	.706

a. Friedman Test

4. Aroma

NPar Tests

[DataSet0]

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
Aroma FI	25	2.08	.862	1	4	1.00	2.00	3.00
Aroma FII	25	2.68	.748	1	4	2.00	3.00	3.00
Aroma FIII	25	2.12	.971	1	4	1.00	2.00	3.00
Aroma FIV	25	2.32	.690	1	3	2.00	2.00	3.00

Friedman Test

Ranks

	Mean Rank
Aroma FI	2.18
Aroma FII	3.10
Aroma FIII	2.22
Aroma FIV	2.50

Test Statistics[a]

N	25
Chi-Square	11.393
Df	3
Asymp. Sig.	.010

a. Friedman Test

5. Rasa

NPar Tests

[DataSet0]

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
Rasa FI	25	2.08	.997	1	4	1.00	2.00	3.00
Rasa FII	25	2.92	.909	1	4	2.00	3.00	4.00
Rasa FIII	25	1.92	1.038	1	4	1.00	2.00	2.50
Rasa FIV	25	2.52	.963	1	4	2.00	3.00	3.00

Friedman Test

Ranks

	Mean Rank
Rasa FI	2.06
Rasa FII	3.22
Rasa FIII	1.96
Rasa FIV	2.76

Test Statistics[a]

N	25
Chi-Square	20.186
df	3
Asymp. Sig.	.000

a. Friedman Test