

DAFTAR PUSTAKA

1. Guguluş DL, Vâță D, Popescu IA, Pătraşcu AI, Halip IA, Mocanu M, et al. The Epidemiology of Acne in the Current Era: Trends and Clinical Implications. *Cosmetics*. 2025;12(3):106–22.
2. Latifah U, Maulida I, Henda K A. The Influence of Stress on the Severity of Acne Vulgaris in Adolescents. *Indonesian Journal of Global Health Research*. 2024;7(1):117–24.
3. Beylot C, Auffret N, Poli F, Claudel JP, Leccia MT, Del Giudice P, et al. *Propionibacterium acnes*: An Update on Its Role in the Pathogenesis of Acne. *Journal of the European Academy of Dermatology and Venereology*. 2014;28(3):271–8.
4. Jumardin W, Firdaus S, Utari AU. Formulasi dan Uji Aktivitas Antibakteri Sediaan Gel Facial Wash Ekstrak Etanol Daun Belimbing Wuluh (*Averrhoa bilimbi* L.) Terhadap Pertumbuhan *Propionibacterium Acnes* Penyebab Jerawat. *Indonesian Health Journal*. 2023;2(2):153–69.
5. Kim HJ, Kim YH. Exploring Acne Treatments: From Pathophysiological Mechanisms to Emerging Therapies. *International Journal of Molecular Sciences*. 2024;25(10):5302–36.
6. Tobiasz A, Nowicka D, Szepietowski JC. Acne Vulgaris: Novel Treatment Options and Factors Affecting Therapy Adherence: A Narrative Review. *Journal of Clinical Medicine*. 2022;11(24):7535–49.
7. Dréno B, Pécastaings S, Corvec S, Veraldi S, Khammari A, Roques C. *Cutibacterium acnes* (*Propionibacterium acnes*) and Acne Vulgaris: A Brief Look at the Latest Updates. *Journal of the European Academy of Dermatology and Venereology*. 2018;32(2):5–14.
8. El Aboubi M, Hdech D Ben, Bikri S, Benayad A, El Magri A, Aboussaleh Y, et al. Chemical Composition of Essential Oils of *Citrus limon* Peel from Three Moroccan Regions and Their Antioxidant, Anti-inflammatory, Antidiabetic and Dermatoprotective Properties. *Journal of HerbMed Pharmacology*. 2023;12(1):118–27.
9. Silletta A, Mancuso A, D'avanzo N, Cristiano MC, Paolino D. Antimicrobial Compounds from Food Waste in Cosmetics. *Cosmetics*. 2024;11(5):151–74.
10. Shafaat K, Kumar P, Kumar A, Kumar S, Kumar A, Raj R, et al. A Comprehensive Insights into Face Wash: Formulation, Function, and Applications. *Int Pharm Sci*. 2025;18(1):10–14.
11. Costa MDS, Rocha JE, Campina FF, Silva ARP, Da Cruz RP, Pereira RLS, et al. Comparative Analysis of the Antibacterial and Drug-modulatory Effect of *D*-limonene Alone and Complexed with β -cyclodextrin. *European Journal of Pharmaceutical Sciences*. 2019;128(1):158–61.
12. Moosavy MH, Mahmoudi R, Moosavy MH, Hassanzadeh P, Mohammadzadeh E, Mahmoudi R, et al. Antioxidant and Antimicrobial Activities of Essential Oil of Lemon (*Citrus limon*) Peel In Vitro and in A Food Model. *Journal of Food Quality and Hazards Control*. 2017;4(1) 42–8.
13. Kusumawati B, Atasa D. Pembuatan Sabun Padat Berbahan Minyak Atsiri Skala Rumah Tangga. *Faedah : Jurnal Hasil Kegiatan Pengabdian Masyarakat Indonesia*. 2023;1(3):103–9.

14. Veraldi S, Barbareschi M, Micali G, Skroza N, Guanziroli E, Schianchi R, et al. Role of Cleansers in the Management of Acne: Results of an Italian Survey in 786 Patients. *Journal of Dermatological Treatment*. 2016;27(5):439–42.
15. Pawar M, Nikam T, Nikam R, Sharma Y. A Comparative Study of Soap and Syndet Bars: Formulation, Benefits and Efficacy in Skin Care. *Journal of Pharmaceutical Research*. 2024;8(3):1–5.
16. Lu G, Moore DJ. Study of Surfactant Skin Interactions by Skin Impedance Measurements. *Int J Cosmet Sci*. 2012;34(1):74–80.
17. Anggraini SI, Sholih MG, Zahra AA. Formulasi dan Evaluasi Sediaan Cleansing Stick dengan Kombinasi *Sodium Cocoyl Isethionate* dan *Cocamidopropyl Betaine* sebagai Surfaktan. *Jurnal Integrasi Kesehatan & Sains*. 2024;6(2):112–8.
18. Badola A, Goyal M, Baluni S. Gels and Jellies: A Recent Technology in Semisolids. *World J Pharm Res*. 2021;10(10):461–75.
19. Dylanesia W. *Budidaya Lemon: Panduan Lengkap untuk Menanam, Memelihara, dan Memanen Lemon*. 1st ed. Irawan G, editor. Yogyakarta: Andi Offset; 2024. p. 6–10.
20. Febrianto A, Dewi IA, Pranowo D, Maligan J. *Peluang Biokosmetik Indonesia: Aplikasi Teknologi yang Murah dan Ramah Lingkungan*. Arsa UT, editor. Indramayu: PT Adab Indonesia; 2024. p. 9–10.
21. Ariani SRD, Prihasti AG, Prasetyawati AN. *Buku Referensi Inovasi Hand Sanitizer Beradisi Minyak Atsiri Serai Wangi dengan Kombinasi Minyak Atsiri Kulit Jeruk Lemon, Nipis, dan Purut*. Ponorogo: Uwais Inspirasi Indonesia; 2023. p. 44–61.
22. Harahap IS, Halimatussakdiah H, Amna U. Skrining Fitokimia Ekstrak Daun Jeruk Lemon (*Citrus limon* L.) dari Kota Langsa, Aceh. *QUIMICA: Jurnal Kimia Sains dan Terapan*. 2021;3(1):19–23.
23. Klimek M, Szopa A, Ekiert H. *Citrus limon* (Lemon) Phenomenon: A Review of the Chemistry, Pharmacological Properties, Applications in the Modern Pharmaceutical, Food, and Cosmetics Industries, and Biotechnological Studies. *Plants*. 2020;9(1):119–43.
24. Muaris H. *Khasiat Lemon untuk Kestabilan Kesehatan*. Hardiman intarina, editor. Jakarta: PT Gramedia Pustaka Utama; 2014.
25. Wei Z, Li S, Copyright fnut, Liu S, Lou Y, Li Y, et al. Review of Phytochemical and Nutritional Characteristics and Food Applications of *Citrus* L. Fruits. *Frontiers in Nutrition*. 2022;9(1):1–16.
26. Assyera RA, Nurjanah S, Widyasanti A, Ainina N, Raya J, Km BS, et al. Quality Profile of Lemon Peels Essential Oil (*Citrus limon* (L.) Burm.f. var. Eureka) Based on Differences in Maturity Colors and Moisture Contents. *Jurnal Teknologi Pertanian*. 2023;24(3):201–18.
27. Jalgaonkar K, Pal RK, Jha G, Samuel DVK. Effect of Species and Particle Size on Essential Oil Yield of Citrus Peel (*Citrus* spp). *Indian Journal of Agricultural Sciences*. 2013;83(12):1285–88.
28. Li Y, Liu S, Zhao C, Zhang Z, Nie D, Tang W, et al. The Chemical Composition and Antibacterial and Antioxidant Activities of Five Citrus Essential Oils. *Molecules*. 2022;27(20):7044–58.

29. AL-Jabri NN, Hossain MA. Chemical Composition and Antimicrobial Potency of Locally Grown Lemon Essential Oil Against Selected Bacterial Strains. *J King Saud Univ Sci.* 2018;30(1):14–20.
30. Hamdi A, Horchani M, Jannet H Ben, Snoussi M, Noumi E, Bouali N, et al. In Vitro Screening of Antimicrobial and Anti-Coagulant Activities, ADME Profiling, and Molecular Docking Study of *Citrus limon* L. and *Citrus paradisi* L. Cold-Pressed Volatile Oils. *Pharmaceuticals.* 2023;16(12):1669–86.
31. Dosoky NS, Setzer WN. Biological Activities and Safety of *Citrus* spp. Essential Oils. *International Journal of Molecular Sciences.* 2018;19(7):1966–91.
32. Zu Y, Yu H, Liang L, Fu Y, Efferth T, Liu X, et al. Activities of Ten Essential Oils Towards *Propionibacterium acnes* and PC-3, A-549 and MCF-7 Cancer Cells. *Molecules.* 2010;15(5):3200–10.
33. Ambrosio CMS, Ikeda NY, Miano AC, Saldaña E, Moreno AM, Stashenko E, et al. Unraveling the Selective Antibacterial Activity and Chemical Composition of Citrus Essential Oils. *Sci Rep.* 2019;9(1):1–13.
34. Nazzaro F, Fratianni F, Coppola R, De Feo V. Essential Oils and Antifungal Activity. *Pharmaceuticals.* 2017;10(4):86–106.
35. Hanif MA, Nisar S, Khan GS, Mushtaq Z, Zubair M. *Essential Oils.* In: Essential Oil Research. New York: Springer International; 2019. p. 3–17.
36. Dhifi W, Bellili S, Jazi S, Bahloul N, Mnif W. Essential Oils Chemical Characterization and Investigation of Some Biological Activities: A Critical Review. *Medicines.* 2016;3(4):25–41.
37. Himed L, Merniz S, Monteagudo-Olivan R, Barkat M, Coronas J. Antioxidant Activity of the Essential Oil of *Citrus limon* Before and After its Encapsulation in Amorphous SiO₂. *Sci Afr.* 2019;6(1):1–9.
38. Khan B. Facial Skin Cleansers. *Int J of Pharm Sci.* 2025;3(6):2404–18.
39. Eknath AP, Ramesh SG, Dhaygude M, Kolhe D. Formulation And Evaluation Of Herbal Face Wash For Sensitive Skin. *International Journal of Creative Research Thoughts.* 2025;13(5):2320–882.
40. Coiffard L, Couteau C. Soap and Syndets: Differences and Analogies, Sources of Great Confusion. *European Review for Medical and Pharmacological Sciences.* 2020; 24(1): 11432–9.
41. Félix S, Araújo J, Pires AM, Sousa AC. Soap Production: A Green Prospective. *Waste Management.* 2017;66(1):190–5.
42. Mijaljica D, Spada F, Harrison IP. Skin Cleansing Without or With Compromise: Soaps and Syndets. *Molecules.* 2022;27(6):2010–25.
43. Chirani MR, Kowsari E, Teymourian T, Ramakrishna S. Environmental Impact of Increased Soap Consumption During COVID-19 Pandemic: Biodegradable Soap Production and Sustainable Packaging. *Science of the Total Environment.* 2021; 796(1): 93–104.
44. Nazdrajic S, Bratovic A. The Role of Surfactants in Liquid Soaps and Its Antimicrobial Properties. *Int J Adv Res.* 2019;7(12):501–7.
45. Arif M, Hakim L, Permadi A, Sofiana N. Teknologi Surfaktan Non-Sulfat pada Kosmetik: Inovasi Surfaktan yang Aman untuk Kulit dan Lingkungan. *Nas J Inovasi dan Teknologi;* 2024;4(1):151–61.

46. Bratovcic A, Nazdrajic S, Odobasic A, Sestan I. The Influence of Type of Surfactant on Physicochemical Properties of Liquid Soap. *International Journal of Materials and Chemistry*. 2018;8(2):31–7.
47. Mawazi SM, Ann J, Othman N, Khan J, Alolayan SO, Al Thagfan SS, et al. A Review of Moisturizers; History, Preparation, Characterization and Applications. *Cosmetics*. 2022;9(3):61–80.
48. Chen HJ, Lee PY, Chen CY, Huang SL, Huang BW, Dai FJ, et al. Moisture Retention of Glycerin Solutions with Various Concentrations: A Comparative Study. *Sci Rep*. 2022;12(1):10232–9.
49. Güder S, Güder H. Investigation of the Chemical Content and User Comments on Facial Cleansing Products. *Cureus*; 2023;15(5):1–8.
50. Andersen FA. Final Report on the Safety Assessment of BHT 1. *Int J Toxicol*. 2002;21(2):19–94.
51. de Szalay S, Wertz PW. Protective Barriers Provided by the Epidermis. *International Journal of Molecular Sciences*. 2023;24(4):3145–58.
52. Gorcea M, Lane ME, Moore DJ. A Proof of Principle Study Comparing Barrier Function and Cell Morphology in Face and Body Skin. *Int J Cosmet Sci*. 2019;41(6):613–6.
53. MacHado M, Hadgraft J, Lane ME. Assessment of the Variation of Skin Barrier Function with Anatomic Site, Age, Gender and Ethnicity. *International Journal of Cosmetic Science*. 2010;32(6):397–409.
54. Adri TA, Elvira S, Miladiarsi. Formulasi dan Uji Aktivitas Antijerawat Sediaan Sabun Wajah Cair Ekstrak Kulit Buah Kelengkeng (*Euphoria Longan*) Terhadap *Propionibacterium Acnes*. *Journal of Vocational Health Science*. 2023;2(1):45–60.
55. Raymond C Rowe, Paul J Sheskey, Siân C Owen, editors. *Handbook of Pharmaceutical Excipients*. Fifth Ed. USA: Pharmaceutical Press; 2006.
56. Bergfeld WF, Donald FACP;, Belsito V, Hill RA, Klaassen CD, Liebler DC, et al. *Amended Safety Assessment of Isethionate Salts as Used in Cosmetics*. Washington: Cosmetic Ingredient Review; 2013.
57. Kim D, Seok JK, Kim M, Choi S, Hong J, Yoon YA, et al. Safety Assessment of Cocamidopropyl Betaine, A Cosmetic Ingredient. *Toxicological Research*. 2024;40(3):361–75.
58. Burnett CL, Bergfeld WF, Belsito D V., Hill RA, Klaassen CD, Liebler D, et al. Final Report of the Cosmetic Ingredient Review Expert Panel on the Safety Assessment of Cocamidopropyl betaine (CAPB). *Int J Toxicol*. 2012;31(1):77-111.
59. Klančnik A, Piskernik S, Jeršek B, Možina SS. Evaluation of Diffusion and Dilution Methods to Determine the Antibacterial Activity of Plant Extracts. *J Microbiol Methods*. 2010;81(2):121–6.
60. Balouiri M, Sadiki M, Ibnsouda SK. Methods for In Vitro Evaluating Antimicrobial Activity: A Review. *Journal of Pharmaceutical Analysis*; 2016;6(2):71–9.
61. Wuryandari W, Lailatul M, Abdul L, Assegaf A, Nurjanah A, Putra P, et al. Mutu Fisik, Mutu Kimia, dan Antibakteri Sediaan Sabun Padat Ekstrak Air Daun Jati (*Tectona grandis* L). *Jurnal Kimia dan Terapannya*. 2025;7(1):1–119.

62. Yuwanda A, Rahmawati D, Nurajijah N. Uji Aktivitas Antibakteri Sediaan Salep Minyak Atsiri Kulit Buah Jeruk Bali (*Citrus maxima* (Burm.) Merr.) Terhadap Bakteri *Propionibacterium acnes*. *Journal of Pharmacy and Halal Studies*. 2024 May 12;1(2):23–31.
63. Smirnov V, Khramova D, Chistiakova E, Zueva N, Vityazev F, Velskaya I, Popov S. Texture Perception and Chewing of Agar Gel by People with Different Sensitivity to Hardness. *Gels*. 2025;11(1):5–21.
64. Hudzicki J. *Kirby-Bauer Disk Diffusion Susceptibility Test Protocol*. 2009.
65. M100 Performance Standards for Antimicrobial Susceptibility Testing, 33rd Ed, M100ED33. CLSI; 2023.
66. APEC Sub-Committee on Standards and Conformance. *Methodologies for Antimicrobial Susceptibility Testing*. 2020.
67. Gunawan M, Fatimah C, Panjaitan S, Tinggi Ilmu Kesehatan Indah S. Sabun Cair Antiseptik Sari Air Kulit Buah Salak (*Salacca zalacca*). *Journal of Pharmaceutical and Health Research*. 2024;5(2):157–68.
68. Tran ASN, Pham VH, Duong CD, Bui QTP. Extraction Conditions, Chemical Composition and Biological Activity of Essential Oil of *Allium schoenoprasum* L. Bulb from Quang Tri Province, Vietnam. *Food Chemistry Advances*. 2024;4(1):1574–86.
69. Pujiarti R, Ohtani Y, Ichiura H. Physicochemical Properties and Chemical Compositions of *Melaleuca leucadendron* Leaf Oils Taken from the Plantations in Java, Indonesia. *Journal of Wood Science*. 2011;57(5):446–51.
70. Tripathi N; Zubair M; Sapra A. *Gram Straining*. Florida: Stat Pearls; 2025.
71. Asker M, El-gengaihi SE, Hassan EM, Mohammed MA, Abdelhamid SA. Phytochemical Constituents and Antibacterial Activity of *Citrus lemon* Leaves. *Bull Natl Res Cent*. 2020;44(1):194–201.
72. Chen Q, Lin X, Zhang J, Liu S, Zou Z, Chun J. Chemical Compositions and Antibacterial Activities of *Litsea cubeba* Essential Oil and Its Distillates Prepared by Vacuum Fractional Distillation and Molecular Distillation. *J Agric Food Chem*. 2025;73(12):7270–81.
73. SNI 16-4380-1996. *Pembersih Kulit Muka*.
74. Soebagio TT, Hartini YS, Mursyanti E. Aktivitas Antibakteri Sediaan Sabun Wajah Cair Ekstrak Herba Pegagan (*Centella asiatica* (L.) Urban) terhadap Pertumbuhan *Staphylococcus aureus* dan *Propionibacterium acnes*. *Biota : Jurnal Ilmiah Ilmu-Ilmu Hayati*. 2020;5(2):69–80.
75. Balouiri M, Sadiki M, Ibnsouda SK. Methods for In Vitro Evaluating Antimicrobial Activity: A Review. *Journal of Pharmaceutical Analysis*. 2016;6(2):71–9.
76. Bampidis V, Azimonti G, Bastos M de L, Christensen H, Kouba M, Fašmon Durjava M, et al. Safety and Efficacy of Feed Additives Consisting of Expressed Lemon Oil and Its Fractions from *Citrus limon* (L.) Osbeck and of Lime Oil from *Citrus aurantiifolia* (Christm.). *EFSA Journal*. 2021;19(4):1–55.
77. Wu P, Tang X, Jian R, Li J, Lin M, Dai H, et al. Chemical Composition, Antimicrobial and Insecticidal Activities of Essential Oils of Discarded Perfume Lemon and Leaves (*Citrus limon* (L.) Burm. F.) as Possible Sources of Functional Botanical Agents. *Front Chem*. 2021;9(1):1–11.

78. Borković A, Botić T, Drljača D, Dragić D, Brdar M, Pilipović S, et al. Optimization of Liquid Soap Formulation. *Technologica acta*. 2024;17(1):49–57.
79. Santika PV, Hadi V, Nuryani AD, Ambarwati A. Effect of Cocamidopropyl Betaine (CAPB) Concentration Physical Characteristic of Basil Leaves (*Ocimum basilicum* L.) Essential Oil Facial Wash. *Jurnal Ilmiah Kefarmasian*. 2024;9(2):477–86.
80. Elka S, Basheva D, Ganchev ND, Denkov K, Kasuga N, Satoh KT. Role of Betaine as Foam Booster in the Presence of Silicone Oil Drops. *Langmuir*. 2000;16(3):1000–13.
81. Holder IA, Boyce ST. Agar Well Diffusion Assay Testing of Bacterial Susceptibility to Various Antimicrobials in Concentrations Non-Toxic for Human Cells in Culture. *Burns* 1994;20(5):426–29.
82. Kowalczyk I, Koziróg A, Szulc A, Komasa A, Brycki B. Antimicrobial Properties of Monomeric and Dimeric Catanionic Surfactant System. *Molecules*. 2025;30(1):164–77.
83. Loyawattananan S, Rachtanapun C. Antibacterial Activity and Foaming Ability of Selected Surfactants. *J Kasetsart*. 2020;58(1):551–58.

