Abstrak

FORMULASI *GUMMY CANDY ZINC* SEBAGAI ALTERNATIF SEDIAAN ANTI DIARE

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Latar Belakang:. Diare masih merupakan masalah di dunia, termasuk Indonesia. Menurut data Riskesdas. (2018) berdasarkan diagnosis Nakes dan gejala tahun 2018 prevalensi diare di Indonesia sebesar 8%, dan berdasarkan diagnosis Nakes dan gejala tahun 2018 prevalensi diare pada balita di Indonesia sebesar 12,3%. *Zinc* mempunyai efek protektif terhadap diare sebanyak 11 % dan menurut hasil *pilot study* menunjukkan bahwa *zinc* mempunyai nilai *outcome* sebesar 67 %. *Gummy candy zinc* adalah sediaan permen *zinc* yang bertujuan untuk hancur dan larut di dalam mulut. Bentuk sediaan *zinc* yang sudah tersedia di pasaran meliputi tablet *zinc*, sirup, capsule, dan drop. Perlu adanya pengembangan sediaan yang diterima anak-anak, maka dari itu *zinc* dibuat dalam bentuk sediaan permen kenyal *gummy candy*.

Metodologi: *Gummy candy zinc* menggunakan metode cetak tuang. Uji keseragaman bobot dan penetapan kadar *zinc* dengan metode kompleksometri berdasarkan Farmakope Indonesia Edisi V.

Hasil Penelitian: Hasil penelitian penetapan kadar dan keseragaman bobot menunjukan bahwa ketiga formula *gummy candy zinc* sulfat memenuhi persyaratan berdasarkan farmakope V. Dari penetapan kadar, *gummy candy zinc* memenuhi kadar yang dipersyaratkan yaitu tidak lebih dari 99-108%. Untuk keseragaman bobot ketiga formula memenuhi persyaratan dengan hasil kurang dari 15.

Kesimpulan: *Zinc* sulfat monohidrat dapat diformulasikan menjadi sediaan *gummy candy*. Formula dengan sorbitol dengan komposisi 637 mg dan glukosa dengan komposisi 338 mg sebagai pemanis dan perasa jeruk yang dapat menutupi rasa buruk pada *zinc* sulfat monohidrat yaitu formula 2. Ketiga formula *gummy candy zinc* sulfat memenuhi persyaratan *gummy candy* berdasarkan farmakope V.

Kata Kunci: *gummy candy*, *Zinc* Sulfat monohidrat. Diare

Abstract

FORMULATION OF GUMMY CANDY ZINC AS ALTERNATIVE OF ANTI DIARRHEA

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Background: Diarrhea is still a problem in the world, including Indonesia. According to Riskesdas data. (2018) based on the diagnosis of Nakes and symptoms in 2018 the prevalence of diarrhea in Indonesia was 8%, and based on the diagnosis of Nakes and symptoms in 2018 the prevalence of diarrhea in infants in Indonesia was 12.3%. Zinc has a protective effect against diarrhea as much as 11% and according to the results of a pilot study shows that zinc has an outcome value of 67%. Gummy candy zinc is a zinc candy preparation that aims to break down and dissolve in the mouth. Zinc dosage forms that are already available on the market include zinc tablets, syrups, capsules, and drops. It is necessary to develop preparations received by children, therefore zinc is made in the form of gummy candy.

Methodology: Gummy candy zinc uses the cast molding method. Weight uniformity test and determination of zinc levels with the complexometry method based on the Indonesian Pharmacopoeia Edition V.

Results: The results of the determination of levels and uniformity of weights showed that the three gummy candy zinc sulfate formulas met the requirements based on pharmacopoeia V. From the determination of the levels, gummy candy zinc met the required levels of not more than 99-108%. For uniformity of weights the three formulas meet the requirements with results less than 15.

Conclusion: Zinc sulfate monohydrate can be formulated into gummy candy preparations. Formula with sorbitol with composition of 637 mg and glucose with composition of 338 mg as sweetener and orange flavoring which can mask bad taste in zinc sulfate monohydrate, that is formula 2. Third formula gummy candy zinc sulfate meets the requirements of gummy candy based on pharmacope V.

Keywords: gummy candy, Zinc Sulfate monohydrate. Diarrhea