

## **THEUNITEDREPUBLICOFTANZANIA**

## **MINISTRYOFHEALTH**



#### TANZANIA MEDICINES ANDMEDICAL DEVICES AUTHORITY

PUBLIC ASSESSMENT REPORT FOR GAMOK 1000, 625,375 (AMOXICILLIN TRIHYDRATE AND CLAVULANATE POTASSIUM 875/125MG, 500/125 MG,250/125 MG) TABLETS

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TMDA Headquarters, Plot No. 56/1, Block E, Kisasa B Centre, Hombolo Road, P. O. Box 1253, Dodoma - Tanzania,

Tel: +255 (26) 2961989/2061990/ +255(22) 2450512/2450751/2452108, Email: info@tmda.go.tz, Website: www.tmda.go.tz, Toll free: 08001100834

## 1. Introduction

Gamok 1000/625/375 is a generic medicine of Amoxicillin Trihydrate and Clavulanate Potassium. Gamok is an antibiotic medicine belonging to J01CR02 combinations of penicillins, incl. beta-lactamase inhibitors group. Gamok exerts its activity by inhibiting one or more enzymes (often referred to as penicillin-binding proteins, PBPs) in the biosynthetic pathway of bacterial peptidoglycan, which is an integral structural component of the bacterial cell wall resulting to cell lysis and death. Gamok is approved in Tanzania for use in adults and children.

## 1.1 Product details

Registration number	Gamok 1000: TAN 20 HM 0412		
	Gamok 625: TAN 20 HM 0414		
	Gamok 375: TAN 20 HM 0413		
Brand name	Gamok 1000		
	Gamok 625		
	Gamok 375		
Generic name, strength and form	Gamok 1000:Amoxicillin Trihydrate equivalent to		
	Amoxicillin 875mg + Clavulanate Potassium equivalent to		
	Clavulanic acid 125mg		
	Gamok 625:Amoxicillin Trihydrate equivalent to		
	Amoxicillin 500mg + Clavulanate Potassium equivalent to		
	Clavulanic acid 125mg		
	Gamok 375:Amoxicillin Trihydrate equivalent to		
	Amoxicillin 250mg + Clavulanate Potassium equivalent to		
	Clavulanic acid 125mg		
ATC classification	J01CR02 combinations of penicillins, incl. beta-		
	lactamase inhibitor		
Distribution category	POM		
Country of origin			
Associated product	NA		
Marketing Authorization Holder	Guilin Pharmaceutical (Shanghai) Co., Ltd.		
	Rm. 1101, Bldg. B, #1289 Yishan Rd., Shanghai 200233,		
	P.R. China.		
	E-mail: overseas@guilinpharma.com		
Local Technical Representative	Guilin Pharmaceuticals Tanzania Limited		
	P.O Box 23145,		
	Plot No 70 , Keko Mwanga Dar Es salaam –Tanzania.		

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# 1.2 Assessment procedure

The application for registration of Gamok was submitted on 26/09/2018. The product underwent full assessment. Assessment was completed in 4 rounds of evaluation. Gamok 1000/625/375 was registered on 25/09/2020.

## 1.3 Information for users

Visual description of the finished product	Gamok 1000: white, film-coated and shaped tablets, one side is smooth and the another side has a hand-break line Gamok 625: white, film-coated and shaped tablets, one side is smooth and the another side has a hand-break line. Gamok 375: white, film-coated and shaped tablets, one side is smooth and the another side has a hand-break line.		
Primary packing material	Al-Al blister		
Secondary packing materials	Sachet of 2 × 7's blisters		
Shelf-life and storage condition	36 months		
	Do not store above 30°C		
Route of administration	Oral		
Therapeutic indications	Oral  GAMOK tablets is used in adults and children to treat the following infections:  middle ear and sinus infections  respiratory tract infections  urinary tract infections  skin and soft tissue infections including dental infections  bone and joint infections  intra-abdominal infections  Genital organ infections in women.  GAMOK tablet is used in adults and children to prevent infections associated with major surgical procedures.		

# 2. Labelling and product information

## Summary of product characteristics

The SmPC included all the relevant information to ensure correct and safe use of the medicine by healthcare providers. The complete SmPC can be accessed <u>here</u>.

## Package insert/leaflet

The package insert is confirmed to be derived from the SmPC and contains sufficient data for the end user. Since the product is POM, the package insert contains full prescribing information as per SmPC.

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## Container labels

The product label information is presented in English. Details in the secondary pack label

include:

Brand name: Gamok

Composition:

Gamok 1000:Amoxicillin(as trihydrate) 875mg, Clavulanic acid(as Potassium

Clavulanate)125mg

Gamok 625: Amoxicillin(as trihydrate) 500mg, Clavulanic acid(as Potassium Clavulanate)125mg

Gamok 375: Amoxicillin(as trihydrate) 250mg, Clavulanic acid(as Potassium Clavulanate)125mg

Pack size: 2 × 7 tablets

Manufacturing details: batch number, manufacturing date, expiry date

Storage conditions: Do not store above 30°C

Manufacturer address: Reyoung Pharmaceutical Co., Ltd., No.1 Ruiyang Road, Yiyuan County,

Shandong Province, China

Unique identifier: <state the unique identification used>

Special warnings/precautions or instructions for use: <include warnings or IFU if applicable>

The details of the primary pack include:

Brand name and strength:

Manufacturing details: <batch number, manufacturing date, expiry date>

Name of manufacturer: <name only>

The content of the primary and secondary labels was aligned to the requirements of the Part V of the Compendium: Guidelines on Format and Content of Product Labels for Medicinal products. The label contains sufficient information for proper identification of the medicine and post marketing follow up of the product.

Describe any approved deviation to the requirements and the justification for the deviation.

#### 3. Scientific discussion

## **Quality of Active Pharmaceutical Ingredient(s)**

## Amoxicillin trihydrate

Information on quality of the API was submitted in form of full details.

#### General properties

Amoxicillin trihydrate API is compendial in USP/BP.

Molecular formula:  $C_{16}H_{19}N_3O_5S \cdot 3H_2O$ 

Chemical name:

4-Thia-1-azabicyclo[3.2.0] heptane-2-carboxylic acid, 6-[[amino (4-hydroxyphenyl) acetyl] amino]-3,3-dimethyl-7-oxo-, trihydrate [2S-[2a,5a,6b(S\*)]]-; (2S,5R,6R)-6- [(R)-(-)-2-Amino-2-(p-hydroxyphenyl)- acetamido] -3,3-dimethyl-7-oxo-4-thia-1-azabicyclo [3.2.0] heptane-2-carboxylic acid trihydrate

#### Structure:

Critical physico-chemical properties of the API were highly soluble belonging to BCS class I and has four chiral centers.

## Manufacture

The API manufacturing site, Zhuhai United Laboratories Co., Ltd., Sanzao Science & Technology Park, National Hi-Tech Zone, Zhuhai, Guangdong 519040, P.R. China was noted to comply with WHO GMP requirements as evidenced by the GMP certificate issued by China Food and Drug Administration (CFDA). Amoxicillin trihydrate API is manufactured by chemical synthesis using conventional techniques. Sufficient controls of quality of materials and inprocess checks were employed throughout the manufacturing process.

## **Specifications**

The API specifications were set as per USP standards and ICHQ3A. The parameters monitored during quality control are: appearance, identification, organic impurities, crystallinity, dimethylaniline, pH, water, microbial limits, residual solvents. Compliance to these specifications were established via batch analysis data and stability studies.

## Stability and container closure system

The re-test period of Amoxicillin trihydrate API is 48 months when packed in Low Density Polyethylene (LDPE) bags and stored at 25°C.

#### **Potassium Clavulanate**

Information on quality of the API was submitted in form of full details.

## General properties

Potassium Clavulanate API is compendia in USP.

Molecular formula: C<sub>8</sub>H<sub>8</sub>KNO<sub>5</sub>

Chemical name:

Potassium(2R,3Z,5R)-3-(2-Hydroxyethylidene)-7-oxo-1-azabicyclo [3.2.0]heptane-2-carboxylate

Structure:

Critical physico-chemical properties of the API were freely soluble in water, slightly soluble in ethanol, very slightly soluble in acetone.

### Manufacture

The API manufacturing site, Sinopharm Weiqida Pharmaceutical Co., Ltd,: Economic & Technological Development Zone, First Medical Zone, Datong, Shanxi, China was noted to comply with WHO GMP requirements as evidenced by the GMP certificate issued by China Food and Drug Administration (CFDA). Potassium Clavulanate API is manufactured by fermentation and chemical synthesis using conventional techniques. Sufficient controls of quality of materials and in-process checks were employed throughout the manufacturing process.

# **Specifications**

The API specifications were set as per in-house standards and ICHQ3A. The parameters monitored during quality control are: description, identification, water, pH, bulk density, tap density, microbial limit, assay, residual solvents. Compliance to these specifications were established via batch analysis data and stability studies.

## Stability and container closure system

The re-test period of Potassium Clavulanate API is 36 months when packed in two lays of polyethylene plastic bag and aluminum-PE bag and stored at 25°C.

## **Quality of the Finished Pharmaceutical Product**

#### Formulation

Gamok 1000 is a white, film-coated and shaped tablets, one side is smooth and the another side has a hand-break line.

Gamok 625 is a white, film-coated and shaped tablets, one side is smooth and the another side has a hand-break line.

Gamok 375 is a white, film-coated and shaped tablets, one side is smooth and the another side has a hand-break line.

Gamok tablet contains Amoxicillin Trihydrate and Clavulanate Potassium and other ingredients listed here after microcrystalline cellulose, sodium starch glycolate, crospovidone, magnesium stearate, silicon dioxide, absolute ethyl alcohol, polyacrylic resin IV, macrogol 4000, purified

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talc, titanium dioxide, polysorbate 80, film coating premix agent and ethanol 80%. Gamok 375 contains lactose as one of the excipients. The quantities of all ingredients are confirmed to be in line with the recommendations of Handbook of Pharmaceutical Excipients, Edition 8<sup>th</sup> in terms of function and quantities. Ingredient, lactose is of safety concern therefore appropriate warnings were included in the product label.

## Manufacture

The finished product was manufactured at

Reyoung Pharmaceutical Co., Ltd., No.1 Ruiyang Road, Yiyuan County, Shandong Province, China. The compliance of the site to TMDA GMP standards was confirmed through site inspection on 20 and 21 October 2017.

## **Specifications**

The FPP is compendial in BP/USP. The manufacturer controls the quality of the finished product as per BP, USP and ICHQ3B requirements. The parameters monitored during quality control are: description, identification, dissolution, uniformity of dosage units, related substances, content of amoxicillin and content of clavulanic acid. Compliance to the standard was established using batch analysis data and stability data.

## Stability and container closure system

Stability studies were conducted on 3 batches of the finished product stored at 30±5°C/75±5% RH for 36 months and 40±2°C/75±5% RH for 6 months. Based on the stability data presented, the approved shelf-life is 36 months when stored in Al-Al at below 30°C.

## Safety and efficacy information

#### **Gamok 1000**

Safety and efficacy of Gamok 1000 was established through biowaiver application. Comparative dissolution report number < number > was submitted.

The biowaiver was approved based on BCS classification.

Gamok 1000 fulfilled the criteria for waiving an in-vivo bioequivalence study as per relevant TMDA guidance. Dissolution profiles of Gamok 1000 was compared to Augmentin 1g Tablets. At least 85% of the labelled amount of Amoxicillin and Clavulanic acid had dissolved in all three media. Therefore, confirming similarity.

#### Gamok 625

Safety and efficacy of Gamok 625 was established through biowaiver application. Comparative dissolution report number < number > was submitted.

The biowaiver was approved based on BCS classification.

Gamok 625 fulfilled the criteria for waiving an in-vivo bioequivalence study as per relevant TMDA guidance. Dissolution profiles of Gamok 625 was compared to Augmentin 625 mg Tablets. At least 85% of the labelled amount of Amoxicillin and Clavulanic acid had dissolved in all three media. Therefore, confirming similarity.

## Gamok 375

Safety and efficacy of Gamok 375 was established through biowaiver application. Comparative dissolution report number < number > was submitted.

The biowaiver was approved based on BCS classification.

Gamok 375 fulfilled the criteria for waiving an in-vivo bioequivalence study as per relevant TMDA guidance. Dissolution profiles of Gamok 375 was compared to Augmentin 375 mg Tablets. At least 85% of the labelled amount of Amoxicillin and Clavulanic acid had dissolved in all three media. Therefore, confirming similarity.

#### 4. Benefit-Risk Assessment and Conclusion

On basis of the data submitted, the current state of knowledge and compliance to Good Manufacturing Practice, the benefit of the product outweighs the risks associated with its use when used in accordance to the summary of product characteristics. Gamok 1000/625/375 is recommended for registration.

## 5. Post-approval updates

#### Variation applications

Reference number	Date submitted	Change requested	Recommendation	Granting date

# Feedback from pharmacovigilance, post marketing surveillance and enforcement activities

Type of feedback	Impact	Response

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## Re-registration applications

Application for renewal of registration was submitted on <DDMMYYYY>. The application was finalized in <number> rounds of evaluation. The product was confirmed to still be compliant to the standards of quality, safety and efficacy, hence registration was renewed on <DDMMYYYY>.

## **PART 5: CHANGE HISTORY**

Version number	Date	Description of update	Section(s) Modified	Approval date

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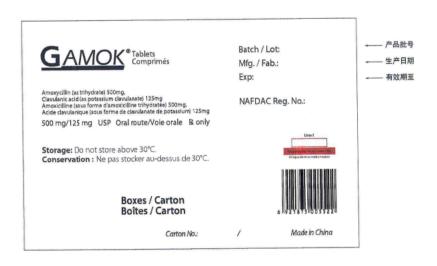
# Annex I: Mock up label

# **Gamok 1000**



# Gamok 625





# Gamok 375



