

ECOBALTIC industrial business park Bagrationovsky city district Kaliningrad Region

#### **INFAMED K**

Pharmaceutical substance manufacturing







Sales revenue:

**3** bn rub. (2017)



32 mln pcs/year



350 employees



#### **PRODUCTION**

Pharmaceutical substance manufacturing





# Miramistin® 50 ml with the urological applicator in set with the nozzle (travel/tourist form)

The compact bottle with the sprayer is easy to be taken when travelling. It is suitable for irrigation of mucous membranes and skin. Along with the sprayer, an urological applicator is present in the set.

Miramistin® has a pronounced antiseptic action and meets the strict requirements of efficiency and safety.



### Miramistin® 50 ml with the urological applicator

The special nozzle is convenient to use in urology, for the purpose of prevention and other cases when the little amount of the product is needed. Miramistin® has a pronounced pharmacological activity against most of the infectants of the sexually transmitted diseases, such as syphilis, gonorrhea, trichomoniasis, chlamydia, genital herpes, HIV, genital candidiasis, and others.



#### Miramistin® 50 ml with the gynecologic applicator

The special applicator is convenient to use in the gynecology for the prevention and treatment of infections, inflammatory gynecologic diseases, postnatal injuries, and others. The product has a pronounced hyperosmolar action resulting in the inflammation reduction, exudate absorption and overall healing. It does not damage granulation or suppress epithelialization.



#### Miramistin® 150 ml in set with the nozzle

The sprayer is easy-to-use for irrigation of mucous membranes of the mouth cavity, nose and throat, as well as irrigation of wounds and skin. Miramistin® is used for treatment of wounds and inflammatory infections (as a topical therapy). It is used in surgery, combustiology, dentistry, otorhinolaryngology, pediatrics, obstetrics, gynecology, urology, dermatovenereology, and others.



#### Okomistin®, in drops (eye, ear, nasal), 0,01%, 10 ml

The bottle of polymer material with the cap-dropper.

The original pharmaceutical product for treatment and prevention of inflammatory infections of eyes, as well as otitis and sinusitis.

#### **ADVANTAGES**

Pharmaceutical substance manufacturing



## 13 FEATURES

# of MIRAMISTIN® making it one of the most efficient antiseptics

- 1. Miramistin® is an antiseptic product of a broad antimicrobial spectrum that has the following effects:
  - bactericide (Staphylococcus, Pseudomonas, Klebsiella, Proteus, Escherichia coli, etc.);
  - antiviral (varicella-zoster virus, influenza virus, adenovirus, labial and genital herpes virus type 1 and type 2, measles virus);
  - antifungal (yeast and yeast-like fungi (Candida, Penicillium, Aspergillus), dermatophytes);
  - active against sexually transmitted infections: gonorrhea, chlamydia, syphilis, trichomonas
- 2. Not penetrating through the skin, nor absorbing into the blood even when applied to mucous membranes or in case of accidental swallowing
- 3. Without mutagenic, embryotoxic or carcinogenic effects
- 4. Not affecting the developing fetus or exuding with milk and therefore can be prescribed to pregnant women
- 5. During manufacturing, only water is used as an auxiliary substance. Such monopartite compound of the product allows exclusion of side-effects and minimizing the allergy risk
- 6. Enhancing the effect of antibiotics, active only against pathogens and not influencing the composition of a normal human microflora
- 7. Immunomodulatory and anti-inflammatory action
- 8. Normalizing operation of the ciliary epithelium of the upper respiratory tract
- 9. Accelerating regeneration of the damaged skin and mucous membranes
- 10. Prolonging the duration of remission and reducing the frequency of recurrences of chronic processes
- 11. Efficient both in monotherapy and complex treatment
- 12. Ready-to-use and not requiring dilution. When frozen or heated, fully maintains its qualities
- 13. Original product, no generics, protected with the patents



The unique qualities of Miramistin® allow to use it in the therapy of various organ systems diseases, minimizing the risk of side-effects

#### **MARKET**

I quarter 2015 I quarter 2016















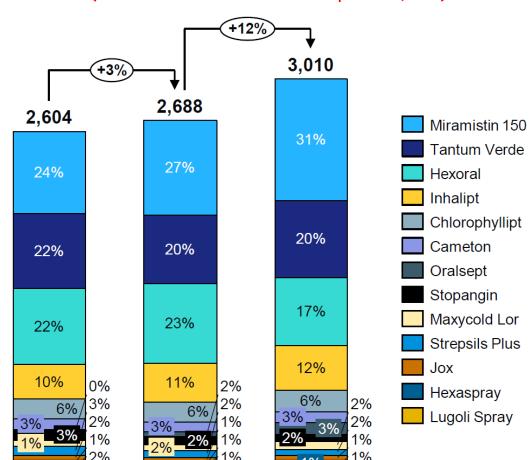




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#### Pharmaceutical substance manufacturing

#### MIRAMISTIN® 150 ml market share (sales in rubles in retail prices, bn)



I quarter 2017

- > The growth of the market size for MIRAMISTIN 150 (Q1 2017 MAT period against Q1 2016 MAT) in monetary terms comprised +23%; in physical terms -+14%.
- Top sellers by the end of Q1 MAT 2017 in the monetary terms (share in monetary terms): MIRAMISTIN 150 (31%) TANTUM VERDE (20%) HEXORAL (19%).
- The share of Miramistin 150 increased both in monetary and physical terms compared to MAT Q1 2016 and comprised 31% in monetary terms and 19% in physical terms (MAT Q1 2017).
- The distribution of Miramistin 150 (single-factor index) comprised 85%, weighted index - 94%, whereas the product is mostly present in the pharmacies of class A and B (March 2017).
- Miramistin 150 is positioned in the premium-segment (with the price of 387 rub. In March 2017), outpaced only by Strepsils Plus.

#### INTRODUCTION

Pharmaceutical substance manufacturing





Construction of the workshop for pharmaceutical substance manufacturing.

The workshop is designed in compliance with the international GMP standards and has been qualified in the EU. The production is equipped with the state-of-the-art high-technology machinery made by BÜCHI (Switzerland), which is all-purpose and allows to produce other pharmaceutical substances by contract.



The pharmaceutical substance production and manufacturing of highly efficient antiseptic products on its basis is considered by INFAMED K as the import substitution process and the national pharmaceutical security factor. In the future, it is planned to validate the plant according to the GMP standards, which will allow to fulfill orders for the customers both in Russia and Europe.



Creation of the domestic manufacturing of the high-quality products for the national market that will be able to replace the foreign counterparts partially, with the perspective of further export to the international markets.



**GOALS** 

- 1. Organization of the full process flow for Miramistin® production within the borders of the Ecobaltic industrial park;
- 2. Achievement of a positive socio-economic effect by means of creation of new high-performance jobs in the region;
- 3. Increase in the amount of tax liabilities assigned to the budgets of all levels.



INITIATOR OF THE PROJECT

INFAMED K LLC



**LOCATION** 

ECOBALTIC industrial business park, Bagrationovsky city district, Kaliningrad Region



IMPLEMENTATION PERIOD

I quarter 2019

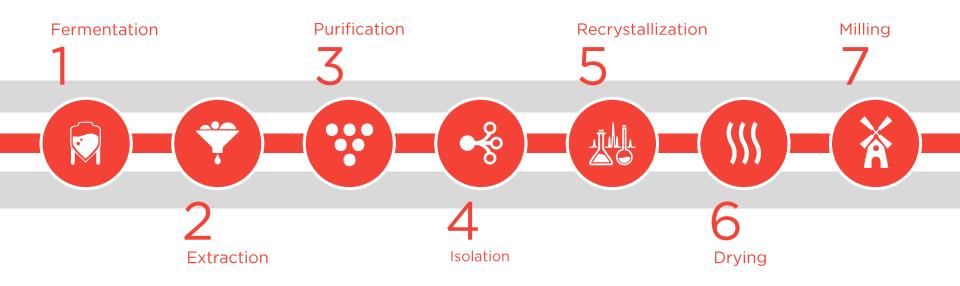
## PARAMETERS Pharmaceutical substance manufacturing





## TECHNOLOGY Pharmaceutical substance manufacturing







CHEMICAL COMPOUND

Benzyldimethyl[3myristoylamino)propyl] ammonium chloride, monohydrate



STRUCTURAL CLASS

Quaternary ammonium compounds



PHARMACOLOGICAL CLASS

Antiseptic product



Marketing authorization number of Miramistin®: P N001926/01

#### **EQUIPMENT**

Pharmaceutical substance manufacturing





#### The general list of equipment:

- Reactor system for the intermediate product's synthesis 2 lines
- Reactor system assembled for obtaining the substance 1 line
- Nutch filter assembled in-frame and (or) centrifuge
- Vacuum ovens
- Vacuum traps, chillers for reactor systems
- · Rotary evaporator with a chiller
- Ventilation hood
- Local water conditioning
- Nitrogen generator
- Laminar flow units

Chemical reactors in the pharmaceutical execution **Büchi** - **ChemReactor GR30-K-C** (3 independent production lines with the CIP-stations, washers and peripheral equipment). Manufacturer: Buchi AG Switzerland.



#### Plan of the ground floor of the pharmaceutical substance workshop





Class D (ISO 8)



Class C (ISO 7)

#### PLANT CONSTRUCTION































#### **CAPITAL INVESTMENT**









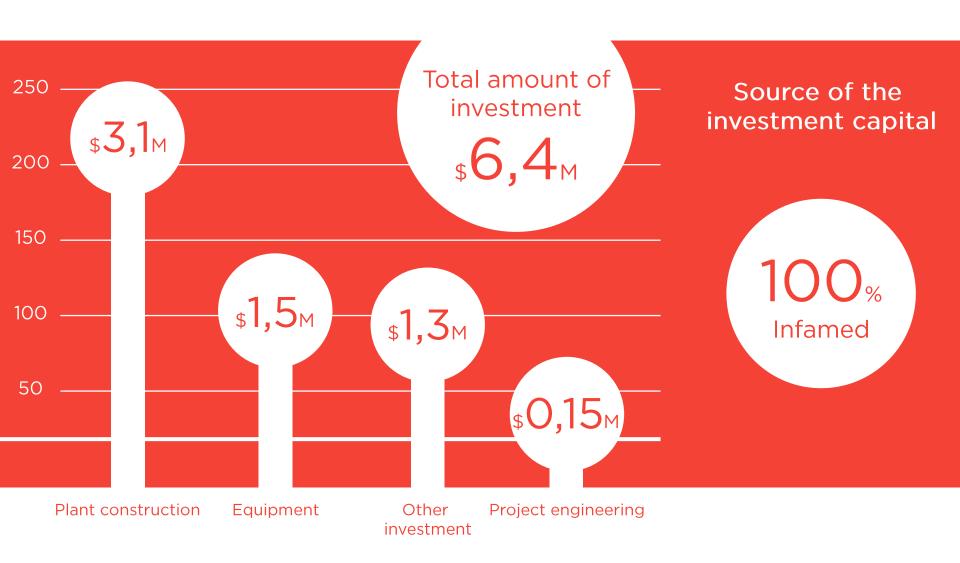


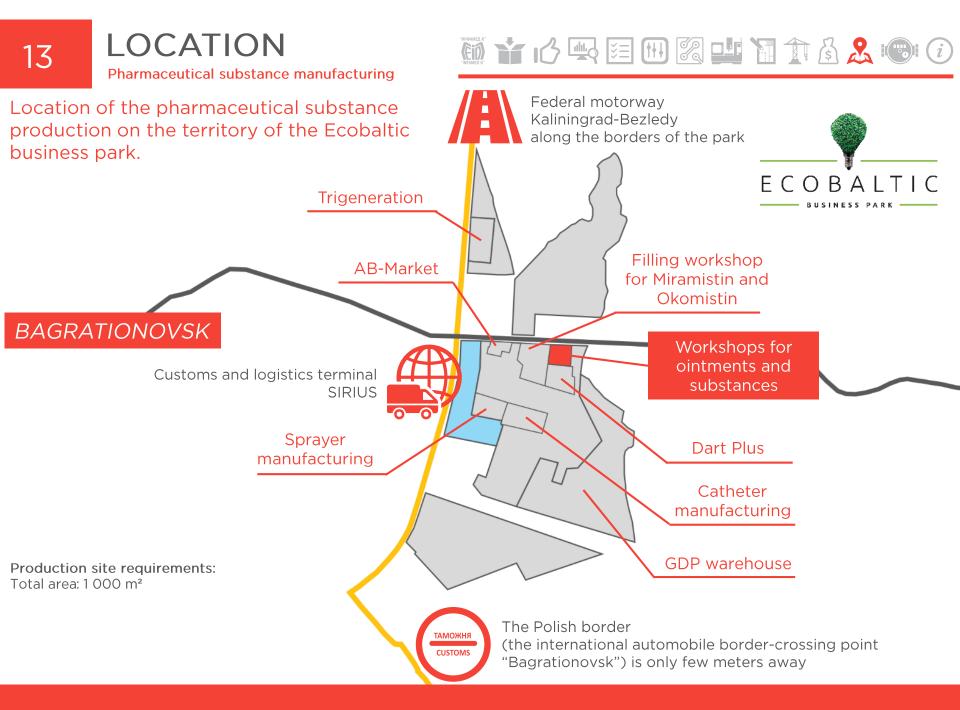






Pharmaceutical substance manufacturing





#### **TARIFFS**

Pharmaceutical substance manufacturing



WATER SUPPLY

\$0,27

**GAS SUPPLY** 

\$75 /1 000 m³

OFFICE RENT
The price is negotiable

**ELECTRIC POWER** 

\$0,05/kWh







WATER DISPOSAL

\$0,13 /m³

LAND PLOT

\$60 000 /ha









**AVERAGE SALARY** 

\$ 6 360 per year

RENT OF PRODUCTION PREMISES

\$6/m\

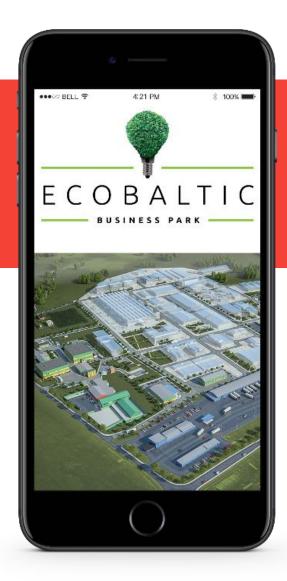
Calculation of variable expenses: monthly with metering devices

The price for resources is calculated according to the state tariffs

#### **CONTACTS**

Pharmaceutical substance manufacturing





## WE ARE READY TO SHARE WITH YOU MORE!

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