

# Instruction on the use of medical adhesive composition "Sulfacrylate"

## 1 PURPOSE

Medical glue "Sulfacrylate" is intended for gluing different tissues of a living organism:

- in surgery of the gastrointestinal tract for sealing joints and anastomoses;
- when performing surgical interventions for traumatic injuries of parenchymal organs: liver, kidneys, spleen, pancreas;
- when performing reconstructive surgical interventions on the biliary tract;
- when performing reconstructive operations on the urinary tract: the renal cavity, ureter, bladder, urethra;
- in thoracic surgery with surgical interventions on the lung, bronchi, pleura, mediastinal organs, plasty of the diaphragm; closure of bronchopleural and thoracopleural fistulas;
- in cardiovascular surgery to seal vascular anastomoses;
- in obstetrics and gynecology when performing surgical interventions on the uterus, its appendages, vagina;
- in neurosurgery with the removal of brain tumors and vascular anomalies in the form of arterio-venous malformations for embolization of blood vessels;
- when performing surgical interventions on the organs of the pancreato-duodenal zone, for occlusion of the pancreatic ducts;
- when closing the internal hernial gates using a synthetic material that is fixed with glue;
- for fixing the mesh skin flaps when performing plastic operations on the body surface;
- for gluing polymeric materials or a haemostatic sponge along the seam line for the purpose of hemostasis;
- for occlusion of fistulous passages;
- for fixing bone grafts;
- in plastic surgery and cosmetology to create seamless skin anastomoses;
- in dentistry and otorhinolaryngology;
- in ophthalmology;
- in endoscopic surgery;
- in oncology;
- for external use in domestic conditions (treatment of small lesions of the skin (cuts, abrasions, scratches).

## 2 BASIC CHARACTERISTICS

The medical glue "Sulfacrylate" consists of ethyl- $\alpha$ -cyanoacrylate (binder component), butyl acrylate (plasticizer) and sulfolane methacrylate (anti-inflammatory, antimicrobial component), is a colorless transparent liquid with a specific odor, specific gravity 1.05-1.07 g / cm<sup>3</sup>, viscosity 8-85 sst.

The adhesive is soluble in acetone, dimethylformamide, dimethylsulfoxide.

The glue is autosterylized. Upon contact with living tissue and aqueous solutions, it rapidly polymerizes; Polymerization time of the adhesive depends on the nature of the bonded tissue and is from 10 to 120 s. The adhesive has high adhesive properties. When applied to connectable tissues it glues them securely together to form a strong elastic film. During polymerization, the glue gives an insignificant shrinkage, more densely bringing together fragments of the glued tissues.

In the body, the glue undergoes gradual resorption. Penetration of connective tissue through the adhesive film occurs as a result of rapid resorption of the low-molecular part and the formation of pores; complete resorption of the adhesive occurs after 30-45 days after application, depending on the thickness of the adhesive film, the methods of its use and the nature of the glued tissues.

Glue has a bactericidal effect against the causative agents of surgical infections: Escherichia coli, Staphylococcus aureus, Proteus, blue-green pus sticks.

The medical glue "Sulfacrylate" is not explosive, does not ignite, and does not have a toxic effect on the human body. In the process of application it does not release harmful substances exceeding the maximum permissible levels for polymeric materials.

Medical glue "Sulfacrylate" is available in two versions: for use in surgical practice and for external use in a domestic setting.

The medical glue "Sulfacrylate" is packed in tubes or syringes for a single use. On the body of each tube/syringe there is a label with the short name of glue ("Glue" Sulfacrylate "), volume in ml and the trademark of the manufacturer. Tubes/syringes are packed in packs of cardboard. In each pack a leaflet is enclosed.

### **3 GENERAL PRINCIPLES OF APPLICATION**

The medical glue "Sulfacrylate" is ready for use without additional preparation.

#### **3.1 APPLICATION IN SURGICAL PRACTICE**

Tubes/syringes are sterilized.

Depending on the purpose of the surgical operation with the help of glue, it is possible to achieve various effects: perform hemostasis with moderate parenchymal hemorrhage, strengthen the seam line of the created anastomosis, re-seal the damage zone, perform organ fixation, create an organ-anastomosis, seal the fistula, etc.

Before the usage individual package should be opened and needle should be putted on tube/syringe.

Before applying glue, the wound surface is drained with a gauze tampon, in the presence of large bleeding vessels, they are ligated.

The glue is flowable and does not polymerize in a dry needle.

The polymerization occurs within 10-120 seconds, resulting in the formation of an elastic film, ensuring tightness of the bonding of the glued surfaces or hemostasis of the wound surface.

When applying the adhesive in large quantities, polymerization takes a longer time, with a "hard" corpse of polymerized glue forming on the wound surface. Excess of applied glue reduces the effectiveness of its use. To accelerate the polymerization of the adhesive film it could be moistened with saline.

#### **3.1 APPLICATION IN CONDITIONAL CONDITIONS**

In domestic conditions, the glue is used externally to handle small skin lesions (cuts, abrasions, scratches). Wound surface is pre-washed, if necessary stop bleeding, then drain the wound surface with a gauze swab. The tube is opened. The glue is applied to the wound surface with a thin layer, previously bringing the edges of the wound closer together. The polymerization occurs within 10-120 seconds, resulting in an elastic film joining the edges of the wound and ensuring the tightness of the bonding of the surfaces to be bonded.

### **4 STORAGE AND USE CONDITIONS**

Medical glue "Sulfacrylate" is stored in the dark place at a temperature range from 0 to + 15 °C.

Shelf life 1 years. Do not use after the expiration date!

Producer: JSC "Federal Research and Production Center" Altai ", 659322, Altai Territory, Biysk, ul.

Socialist, d.1. LTD Medical innovations, Novosibirsk, Lavrent`eva st. 9/8

Sales department: tel./fax 88005550958