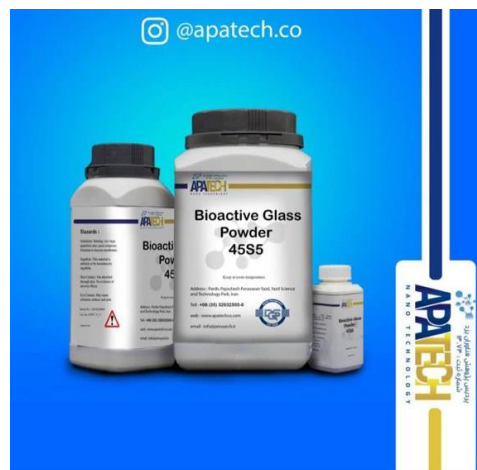


## Bioactive Glass 45S5 (Calcium Sodium Phosphosilicate)

Bioactive glasses are a group of surface reactive glass-ceramic biomaterials.

The biocompatibility and bioactivity of these glasses has led them to be used as implant devices in the human body to repair and replace diseased or damaged bones. Most bioactive glasses are silicate based glasses that are degradable in body fluids and can act as a vehicle for delivering ions beneficial for healing. There have been many variations on the original composition which was Food and Drug Administration (FDA) approved and termed Bioglass. This composition is known as Bioglass 45S5.

Identification	APA-Bioglass45S5
Name	Bioactive glass (45S5)
CAS number	65997-17-3
EC number	266-046-0



	Unit	Specification
SiO <sub>2</sub>	%	45±2
P <sub>2</sub> O <sub>5</sub>	%	6±1
CaO	%	24.5±2
Na <sub>2</sub> O	%	24.5±2
Total heavy metals (as Pb)	ppm	< 20
Loss On Ignition	%	0.01
Bulk density	g/cm <sup>3</sup>	3.33
Particle type		<b>Microparticles</b>
Particle size		<b>under request</b>
Physical appearance		<b>White and odorless powder</b>

### Application

- Bone substitutes
- Hypoallergenic toothpaste
- Covering implants
- Strengthening dental composites
- Bleeding control and wound healing
- Cosmetics and hygiene products such as skin rejuvenating creams, varnishes, etc.

### Availability

Available in PE food grade containers at different sizes.

Pardis Pajouhesh Fanavarn Yazd co.

