CLAIMS

1. A low-halogen underfill, wherein the components of the underfill comprise silica-modified epoxy resin and acrylic monomer; the halogen content of the underfill is not more than 80 ppm; more preferably the halogen content of the underfill is not more than 40 ppm; the content of the silica-modified epoxy resin is 20%-45% of the total weight of the underfill; the content of the acrylic monomer is 12%-17% of the total weight of the underfill.

2. The low-halogen underfill according to claim 1, wherein in terms of weight percentage,the silica-modified epoxy resin is 20%-40% of the total weight of the underfill; further preferably the silica-modified epoxy resin is 20%-35% of the total weight of the underfill; more preferably the silica-modified epoxy resin is 25%-35% of the total weight of the underfill.

3. The low-halogen underfill according to claim 1 or 2, wherein the acrylic monomer is any one or more selected from the group consisting of: methyl methacrylate, ethyl methacrylate, butyl methacrylate, isobornyl acrylate, lauryl methacrylate, hydroxyethyl acrylate, hydroxypropyl acrylate, methacrylic acid, diethylene glycol diacrylate, hexanediol diacrylate, ethoxylated trimethylolpropane triacrylate, trimethylolpropane triacrylate and pentaerythritol triacrylate.

4. The low-halogen underfill according to any one of claims 1-3, wherein the components of the underfill further comprise a toughener.

5. The low-halogen underfill according to any one of claims 1-4, wherein the components of the underfill further comprise epoxy resin.

6. The low-halogen underfill according to claim 5, wherein the epoxy resin is any one or more selected from the group consisting of: bisphenol A epoxy resin, bisphenol F epoxy resin, and alicyclic epoxy resin.

7. The low-halogen underfill according to any one of claims 1-6, wherein the components of the underfill further comprise a curing agent, and/or a filler, and/or an accelerator, and/or an initiator, and/or a polymerization inhibitor, and/or a coupling agent, and/or a defoamer, and/or a wetting and dispersing agent, and/or a pigment.

8. The low-halogen underfill according to claim 7, wherein in parts by weight, the underfill comprises the following components: 0-20 parts of epoxy resin, 20-45 parts of silica-modified

epoxy resin, 25-35 parts of curing agent, 12-17 parts of acrylic monomer, 0-10 parts of toughener, 0-20 parts of filler, 1-5 parts of accelerator, 1-5 parts of initiator, 0.1-1 part of polymerization inhibitor, 0.1-1.5 parts of coupling agent, 0.1-1 part of defoamer, 0-1 part of wetting and dispersing agent, and 0.2-0.5 part of pigment.

9. A preparation method of the low-halogen underfill according to any one of claims 1-8, wherein it comprises weighing out each of the components and mixing them under vacuum conditions.

10. Use of the low-halogen underfill according to any one of claims 1-8 in the field of chip-level microelectronic packaging.