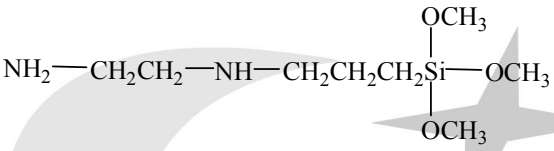
Product information

LT-792

N- （ β -AMINO ETHYL)- γ -AMINO PROPYL TRI METHOXY SILANE

Product description

Structural formula:



Empirical formula: $C_8H_{22}N_2O_3Si$
Molecular weight: 222.4
CAS No.： 1760-24-3
Chemical name:
N- （ β -AMINO ETHYL)- γ -AMINO PROPYL TRI METHOXY SILANE

Properties

LT-792 is a bifunctional organosilane posse ssing reactive primary amine and hydrolys able inorganic methoxysilyl groups. The du al nature of its reaction, it can organically bond inorganic materials (such as glass, metals, fillers) and organic polymers (such as thermoplastics, thermosetting plastics o r elastomers). It is used as a adhesion pro moter, surface modifier for organic/inorgani c interfaces (anticorrosion, primer) or silico ne polymer or crosslinker (moisture crossli nked polymer). LT-792 used as a coupling agent in mechanical and electrical product s can greatly improve the product's water resistance, corrosion resistance and electric al properties (such as volume resistivity, di electric constant).

LT-792 is a colorless to clear yellow liquid with a special ammonia smell, soluble in alcohols, chain hydrocarbons, aromatic hydrocarbons and other solvents.

Technical data

Typical characteristics	Value
Appearance	Colorless to clear yellow liquid
Purity	97.0%
Density at 25℃	1.03g/ml
Boiling point at 760mmHg	261℃
Flash point（closed cup)	128℃
Refractive index (25℃)	1.4425

Note: the above data are for reference only, can not be used as a technical specification

Reactivity

In the presence of water, the methoxy groups of LT-792 hydrolyze to form reactive silanol groups which can bond to a variety of inorganic substrates. LT-792 has organic properties of diamino group can react with suitable organic polymer.
The hydrolysis takes place autocatalytically and the pH of the hydrolysate is about 10, In order to obtain a more stable hydrolysate, it is recommended to adjust the pH of water to about 4. Suitable inorganic substrates include glass fibers, glass fiber fabrics, fillers (such as glass, mineral wool, mica, talc, wollastonite, kaolin, metal oxides, etc.).

LT-792 can react with various organic polymers, such as phenolic resin, furan resin, polystyrene, acrylic resin, polyvinyl chloride, nylon, melamine, silicone rubber, etc.
LT-792 can react in ketone or ester solvents. The silane itself or the silanized substrate reacts with carbon dioxide to form the corresponding carbonate or carbamate.

Application and performance

LT-792 is an important additive in many fields.
Examples include:

- ✧ glass fiber/Electronic cloth composite material: can be used as glass fiber treatment agent, or wetting agent additives
- ✧ as a primer for glass and metal
- ✧ casting resin：as a variety of casting resin additives
- ✧ Adhesiion and
- ✧ Sealants and adhesives： as a primer or adhesion promoter
- ✧ inorganic filled polymer：pretreatment of fillers and pigments
- ✧ Paints and coatings： as an additive or primer to improve the adhesion to the substrate

The important function of LT-792 is : to improve product performance:
Examples include:

- ✧ Flexural strength, tensile strength, impact strength and elastic modulus of the composite material in dry and wet conditions.
- ✧ Improve moisture resistance and corrosion resistance

Improve processing performance
Examples include:

- ✧ Adhesion
- ✧ Dispersion

Product safety, handling and storage

Customers considering the use of this product should review the latest Material Safety Data Sheet and label for product safety information, handling instructions, personal protective equipment if necessary, and any special storage condition required. The “Best use before end” date of each batch is shown on the product label. Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.

Packing

Information on available container sizes is obtainable from **HUBEI BLUESKY** supplier.

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