Contact Us

+86 183 5181 7618

www.silfluosilicone.com
inquiry@silfluo.com

No. 9 Kechuang Avenue,
Intelligent Manufacturing Industrial Park,
Jiangbei New District, Nanjing 211500
China

Nanjing Silfluo New Materials Co., Ltd.

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PHOSPHORUS

NEW MATERIAL

We help you find the product that best suits your project

PRODUCTS

ORGANOPHOSPHORUS FRAME RETARDANTS

Product Code	Chemical Name	Tech Data & Application
LP-11	Hexaphenoxycyclotriphosphazene CAS NO.: 1184-10-7	Widely used in epoxy resin, copper clad laminate, LED light emitting diode, powder coating, potting material and polymer material, it is a kind of excellent fire retardant material and self-extinguishing material.
LP-12	Poly(diphenoxy)phosphazene CAS NO.: 28212-48-8	Used in epoxy resin, powder coating, plastic and other polymer materials.
LP-13	3-Hydroxyphenylphosphinyl-propanoic acid (CEPPA) CAS NO.: 14657-64-8	Used in polyester flame retardant, good flame retardant effect, suitable for producing high-quality flame retardant polyester chips.

WHAT ARE PHOSPHAZENE FLAME RETARDANTS?

Phosphazene flame retardant is a new type of organic phosphorus flame retardant. Phosphazene compound is a kind of inorganic compound with P and N alternating double bonds as the main chain structure. It exists in a ring or linear structure. It is this product when a phenoxy group is inserted on the phosphorus atom. The introduction of the phenoxy group makes the phosphazene compound is a combination product of inorganic compound and organic compound, and it is a good halogen-free, environmentally friendly and green flame retardant.

The flame retardant mechanism of phosphazene compounds is the comprehensive effect of four ways:

The heat absorption during thermal decomposition of phosphazene is the cooling mechanism; The phosphoric acid, metaphosphoric acid and polyphosphoric acid generated by thermal decomposition can form a layer on the surface of polymer materials. The non-volatile protective film isolates the air, which is the mechanism of the isolation film;

At the same time, it releases carbon dioxide, ammonia, nitrogen, water vapor and other gases after being heated, which is the dilution mechanism;

These non-combustible gases block the supply of oxygen to achieve In order to achieve the purpose of flame retardant synergy and synergy, and when the polymer burns, PO groups are formed, which can combine with H and HO active groups in the flame area to suppress the flame, which is the chain termination reaction mechanism. Due to the above synergistic effects, the system exhibits good flame retardancy.

Hexaphenoxycyclotriphosphazene and poly(diphenoxy)phosphazene are the main products of our company. Mainly used in:

1. Printed circuit board;
2. Special sealing materials;
3. High-frequency components;
4. Resin molded products (PC, PPE, PET, PBT, HDPE, etc.);
5. Adhesives, pressure sensitive adhesives;
6. Heat-resistant paint.