有機リン化合物 Organic Phosphorus Compound - CF-168DOPO CF-168 DOPO Product name 9,10-Dihydro-9-Oxa-10-Phosphaphenanthrene-10-Oxide (3,4,5,6-Dibenzo-1,2-Chemical name Oxaphosphane-2-Oxide) $C_{12}H_9O_2P$ Fornula 216 Molecular Structure CAS 5948-25-25 Physical properties Appearance White Color Flake **Purity** >99% (HPLC) 1.378/25°C Specific Gravity Melting point >115°C Phosphor content 14.35% **Boiling** point Approx. 200°C/1mmHg Solubility Easily soluble in methanol, ethanol, isopropanol, chloroform, DMF, DMSD. Slightly soluble in benzene, toluene. Hardly soluble in water, n-hexane. Although this product easily absorb the moisture in the open air caused influent the Chemical properties quality situation but it is restored by heating again. +H2O -H2O APPLICATION CF-186 DOPO is a new system flame retardant, it can replace the conventional flame retardant tetrabromo bisphenol-A(TBBPA). DOPO is CH2 the green flame retardant accept by European Union. Owing to the rigid structure of DOPO and pendant phosphorus group, the resultant phosphorus containing epoxy resin exhibited better environmently retardant, higher glass transition temperature, thermal stability, less toxic Excess and smoke than the conventional flane retardant epoxy resin systems containing TBBPA. FR-4 rating could be achieved with DOPO content in epoxy resin. It have demonstrated superior ability as flame retardant for printed circuit board (PCB) and electrical laminate. X=A or B $B = -CH_2 - CH - CH_2$ $A = -CH_2 - C - CH_2$ Derivatives Application Flame retardants Structure resin DOPO-BQ PCB DOPO **PET**

PCB

HOH:CH:CO;C - CH - CO;CH:CH:OH

DOPO-X