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# High Chlorinated Polyethylene (HCPE)

**I.Product Name:High chlorinated polyethylene Alias : HCPE CAS No.:64754-90-1**

## II.Product Introduction:

High chlorinated polyethylene (HCPE) which is augmented product of Chlorinated polyethylene, belongs to small fine chemicals product and is a synthetic macromolecule materials with good comprehensiveness and it is a chlorinated polyethylene made from special polyethylene through deep chlorination. The chlorine content of the HCPE products produced by our company is controlled ranging from 58-75% as the requirements of specification models and customers and the chemical nature of HCPE is very stable meanwhile it can be soluble in organic solvents of various arene, hydrochloric ether, ketone and esters. In particular it has great solubility in methylbenzene and Xylene solution and due to saturation of its molecular structure, the molecular chain has large amounts of chlorine atoms, hence a great chemical stability is given to this material and make it be an excellent coating film-forming resin and adhesive resin with good film-forming property, oil resistivity, ozone resistance, chemical corrosion resistance and fire-retardant self-extinguishment. While after its film formation, it has not only stable chemical stability but also has good impermeability on the water and vapor, enduring wet chlorine, CO<sub>2</sub>, SO<sub>2</sub>, H<sub>2</sub>S and other various gases (excluding wet ozone or acetic acid); it has good heat stability (it will break down when heating over 130°C meanwhile releasing HCL) and good anti-ultraviolet ability; it can be stored under room temperature and does not react with acid, alkali or other inorganic salt mediums; as well as it has high adhesive force with the surfaces of steel products and cement, widely used for special anticorrosive paint and adhesives.

Major applications of HCPE:

1. Special anticorrosive paint
2. Fire-retardant paint (flame-retardant paint)
3. Building paint
4. Marked ruling paint
5. Adhesive

HCPE applications in other fields: it can be used as original materials of printing ink and adhesives, At the same time, it can also be used as fire-proof agent (flame-retardant agent) of paper and fiber, heat retardant modifier of the adhesives of CR and other rubber series as well as modifier of printing oil used for paper and aluminum foil.

The above-mentioned performances can be further enhanced through modifying with other resins, hence, it is an ideal film-forming material of special anticorrosive paint and the anticorrosive paint made from HCPE has the advantages of durable, fast dry, not being subjective to construction temperature, single-package, non-toxic and having no interlayer adhesion, hence it is more and more popular for manufacturers.

### III.Executive standard of the product

Executive standard of HCPE production

Index	requirements			Test method
	HCPE-L	HCPE-M	HCPE-H	
Viscosity , second (20 % Xylene , 25°C )	<18	>18,<60	>60	Paint-4 cups
Chlorine content, %	58~75	58~75	58~75	Mercuric nitrate volumetric method
Thermal decomposition temperature, °C >	120	120	120	Oil bath warming
mosture, %<	0.2	0.2	0.2	Dry constant temperature
Appearance	White powder			Visual inspection
Solubility	No insoluble substance			Visual inspection

### IV. Safety and health cautions

The HCPE products of this company has high purity with no residual carbon tetra-chloride and is tasteless, non-toxic, flame-retardant and has no harm to human body.

When the HCPE granularity is too thin , its dust may be inhaled to stimulate the respiratory tract , hence, the dust concentration of the environment should be controlled below 10mg/m<sup>3</sup>

### V.Product packaging &storage and transport

20±0.2kg, PP knitted outer bag and PE thin film-inner bag.

This product must be stored in dry and ventilated warehouse to avoid sunshine, rain, damp or heat.

Also it should be transported by clean transportation tools with covering and this product is non-dangerous good.