# Polyepoxysuccinic Acid (PESA)

**Molecular Formula:** HO(C<sub>4</sub>H<sub>2</sub>O<sub>5</sub>M<sub>2</sub>)<sub>n</sub>H **Molecular weight**: 400-1500

**Structural Formula:** 

Notes: n=2-10

M: Na<sup>+</sup> or H<sup>+</sup>  $\setminus$  K<sup>+</sup>  $\setminus$  NH<sub>4</sub><sup>+</sup>

R:  $H \text{ or } C_{1-4} \text{ alkyl}$ 

## **Properties:**

PESA is a multivariate scale and corrosion inhibitor with non-phosphor and non-nitrogen, it has good scale inhibition and dispersion for calcium carbonate, calcium sulfate, calcium fluoride and silica scale, with effects better than that of ordinary organophosphines. When built with organophosphates, the synergism effects are obvious.

PESA has good biodegradation properties, it can be widely used in circulating cool water system in situation of high alkaline, high hardness and high pH value. PESA can be operated under high concentration index. PESA has good synergism with chlorine and other water treatment agents.

#### **Specification:**

items	index
Appearance	Colorless or light amber transparent liquid
Solid content %	40.0min
Density (20°C) g/cm <sup>3</sup>	1.28min
pH value (1% water solution)	9.0-12.0

#### **Usage:**

PESA can be used in system of oilfield refill water, crude oil dehydration and boiler;

PESA can be used in circulating cool water system of steel, petrochemical, power plant, medicine.

PESA can be used in boiler water, circulating cool water, desalination plant, and membrane separation in situation of high alkaline, high hardness, high pH value and high concentration index.

PESA can be used in detergent fields.

### **Package and Storage:**

Normally In 250kg net Plastic Drum, IBC drum can also be used as required. Storage for ten months in room shady and dry place.

#### **Safety Protection:**

Alkaline, Avoid contact with eye and skin, once contacted, flush with water.