POLYSTEP® HPE

Chemical Structure

Hydroxyethyl Methacrylate Phosphate

CAS Number

52628-03-2

Applications

POLYSTEP HPE is a functional monomer for use in emulsion and solution polymerization systems. When incorporated into the polymer, POLYSTEP HPE promotes adhesion to substrates and corrosion resistance. POLYSTEP HPE can provide improved pigment dispersion and antistatic properties to polymers. Typical use levels of 1 – 4%.

Typical Properties

Appearance at 25 °C............................................................ Clear colorless to pale yellow liquid
Acid Value 1, mg KOH/gram.............................................................. 180
Phosphoric Acid, %.............................................................................. 4.0 max.
Viscosity, cps at 25 °C..................................................................... 900
pH, 5% in water.................................................................................. < 2
MEHQ (as added), ppm...................................................................... 500
Water, %.......................................................................................... 0.25 max.
Density at 25 °C, g/ml (lbs/U.S. gal).................................................. 1.26 (10.5)

Environmental Effects

The product is considered readily biodegradable, additional information available upon request.

Health Effects

POLYSTEP HPE is corrosive to skin and eye at 100% active. The product may also cause allergic skin reaction.

Storage & Handling

Normal safety precautions (i.e., safety goggles, dust mask and gloves) should be employed when handling POLYSTEP HPE. Contact with the eyes and prolonged contact with the skin should be avoided. Wash thoroughly after handling material.

Container Storage:
It is recommended that POLYSTEP HPE be stored in original sealed containers and kept at temperatures below 95 °F (35 °C). Product is stable under recommended storage conditions. Keep product away from heat and sources of ignition. Avoid exposure to UV light or loss of dissolved oxygen.

Workplace Exposure

Occupational exposure can occur primarily through skin contact or via inhalation of vapors and mists. Engineering controls, personal protective equipment, and other workplace practices should be used to control these exposures.

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This product bulletin has been written in accordance with ACC’s Product Stewardship guidelines.

A Safety Data Sheet is available upon request.

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Clearances

All components of POLYSTEP HPE are listed in the following countries; the registration numbers for the active ingredients are included in parentheses: Australia (AICS 52623-03-2), Canada (DSL 52628-03-2), China (IECSC 52628-03-2), Korea (ECL Serial No. KE-25026), New Zealand (NZIoC 52628-03-2), Philippines (PICCS 52628-03-2), and United States (TSCA 52628-03-2).

It is the responsibility of the formulator to review the chemical control regulations for each country where the end product is intended to be sold or used.