ADDAPT Chemicals BV

Technical Data Sheet

PolySurf™ HPL
Functional Monomer

Article number: PO86413
Verification date: 18/02/2025
Version: 2.1

Typical chemical and physical properties

Solvent-free, lipophilic UV-curable monomer. It imparts very good corrosion-inhibiting properties after polymerisation and provides wetting and levelling properties. It has good compatibility with acrylic and methacrylic esters. It exhibits improved wet-scrub resistance, improved adhesion to metals and high yellowing resistance. Used in polyacrylic pigment dispersants and emulsion polymerisation.

Mixture of methacrylated mono-and di-phosphate esters modified with lipophilic moieties.

Appearance	Liquid	
Active content	> 99,5%	
Phosphorus content	~ 10%	
pH 1% in water at 25°C	0,5 - 4,5	
Viscosity at 25°C	50 - 300	mPa·s
Acid number AV1	100 - 130	mg/KOH
Acid number AV2	180 - 220	mg/KOH
Colour	<3	Gardner

This information is intended as a guideline only. For specifications please consult the Certificate of Analysis.

Application and treat level

Markets	Emulsion polymerisation industry UV-Coating industry Ink industry
Applications	Radiation-curable metal primers and finishes Polymerisable plasticiser for polyacrylates, polyesters, PVC Adhesives & bonding agents Metal pastes Emulsions for paints, lacquers, printing inks and adhesives Flame retardant for unsaturated polyesters and polyacrylates Flame retardant and plasticizer for UV curable systems
Recommended dosage/usage	As surfactant: 0,5 - 2,5 % wt. based on monomers ~5,0 % wt. for flame retardant

Key benefits

- Readily biodegradable -- Biobased -- Solvent free -

• Excellent non-migratory plasticiser and mechanical stability.

• Very good corrosion inhibitor for metal pastes.

• Emulsion co-polymerisable anionic surfactant.

• It imparts excellent levelling, wetting and improves adhesion to metal surfaces in UV-curable systems.

• Flame retardant booster.

• Addition of approximately 5,0 % results in a final P content of the flame-retardant polyester, polyacrylate or PVC of approx. 0,5 %.

• It is an effective plasticizer. No plasticizer migration occurs after through-cure.

• It improves both the storage and mechanical stability of an emulsion system, whereas grit building and foam formation is minimised.

• No migration of the non-ionic surfactant occurs after film formation paints and lacquers based on emulsions containing this “build-in” lipophilic non-ionic surfactant show improved wet-scrub resistance, improved adhesion to metal and high yellowing resistance even after enamel application.

• The di-phosphate ester affords some degree of crosslinking without gel formation.

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Safety and Handling	Please read Safety Data Sheet (SDS) before handling.
Product Specification	This information is available on request through our local representative.
Packaging	This information is available on request through our local representative.
Storage	The product should be stored at a temperature of no less than 10 °C and no more than 25 °C and away from light. For more safety details read the Safety Data Sheet (SDS)

Quality Policy

The objective of our quality policy is the continuous fulfillment of the internal and external requirements agreed upon with our partners with regards to everybody's performance.

The Quality System of ADDAPT® Chemicals BV is based on the principles of the NEN - EN - ISO - Standard 9001:2015.

Liabilities

All recommendations for the use of our products, whether given by us in writing, orally, or to be implied from the results of tests carried out by us, are based on the current state of our knowledge. Notwithstanding any such recommendations, buyer or user remains responsible for satisfying himself that the products as supplied by us are suitable for his intended process or purpose. Since we cannot control the application, use or processing of the products, we cannot accept responsibility thereof. Buyer has to ensure that the intended use of the products will not infringe any third party's intellectual property rights. We warrant that our products are free from defects in accordance with, and subject to, our general conditions of sale and supply.

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