



Product Data Sheet

Cresyl Diphenyl Phosphate (CDPP)

Description

Cresyl diphenyl phosphate (CDPP) is an **aryl organophosphate** used as a **flame retardant** and **plasticizer**. It is a clear to pale yellow liquid or viscous solid with good solubility in organic solvents. CDPP is widely applied in **polymers, resins, coatings, and electronics** to enhance **flame resistance, thermal stability, and mechanical properties**.

Typical Properties

Parameter	Specification
Chemical Formula	C ₁₉ H ₁₅ O ₄ P
Molecular Weight	322.28 g/mol
Appearance	Clear to pale yellow liquid/viscous
Specific gravity at 25 °C	1.178 – 1.220
Acidic Value, mg KOH / gm	0.5 Max
Refractive Index at 25 °C	1.555 – 1.560
Phosphorous Content %	9.0 – 9.2%
CAS Number	26444 – 49 – 5
EC Number	247-693-8

Applications

- **Flame Retardant:** For polycarbonate (PC), epoxy, unsaturated polyester (UPR), and polyurethane foams.
- **Plasticizer / Softener:** Enhances flexibility, impact resistance, and processing of PVC and other polymers.
- **Epoxy & Thermosetting Resins:** Improves thermal stability and flame resistance in cured resins.
- **Electrical & Electronics:** Used in laminates, printed circuit boards (PCBs), and insulation materials.
- **Coatings & Adhesives:** Provides fire-resistant properties in industrial coatings, adhesives, and sealants.
- **Synergistic Use:** Can be combined with antioxidants, UV stabilizers, or other flame retardants for enhanced performance.

Safety & Handling

- CDPP is moderately toxic; handle with **gloves, goggles, and protective clothing**.
- Avoid **inhalation and skin contact**.
- Store in **sealed containers** away from **heat, moisture, and direct sunlight**.
- Refer to the **Safety Data Sheet (SDS)** for detailed handling and emergency information.

The information given in this document is only a recommendation, believed to be reliable, and is given in good faith but without warranty. Our advice does not release users from the obligation of checking its validity. The user should test the product to ascertain the suitability for the intended use. Specified properties mentioned in this document are based on our historical production performance and these properties or the whole document is subject to change without any prior notice, at our sole discretion. We are under no obligation to recall earlier issued documents.