



Technical Data Sheet

Chemical name: 4, 4' -Azobis (4-cyano-1-pentanol)

CAS No.: 4693-47-4

Molecular formula: C₁₂H₂₀N₄O₂

Molecular weight: 252. 31

Sodium sulfonate Properties

ITEM	STANDARD
Appearance	Light yellow to brown solid
Melting point 75-85°C	75-85°C
Loss on drying	25%Max
Purity	95% min
PH Value	7—9

Application

1. Application in polymerization reactions



Unilong Industry Co., Ltd

Add: No.2000 Shunhua Rd, High-Tech Zone , Jinan City, Shandong Province, China

4,4'-azobis(4-cyanopentanol) is an azo compound that can be used as an initiator for polymerization reactions. In the process of free radical polymerization, it can decompose to produce free radicals to initiate monomer polymerization. For example, in the polymerization reaction of vinyl monomers such as acrylates and styrenes, it can effectively control the initiation and rate of the polymerization reaction. The free radicals produced by its decomposition can initiate the opening of double bonds in the monomer molecules, and then connect to each other to form polymer chains.

This initiator has certain advantages, such as providing a relatively stable free radical generation rate under appropriate temperature conditions, so that the polymerization reaction can proceed smoothly, which is conducive to the synthesis of polymers with a narrow molecular weight distribution.

2. Role in the preparation of foaming materials

It can also be used to prepare foaming materials. In the preparation of foaming materials such as polyurethane, 4,4'-azobis(4-cyanopentanol) can participate in the reaction to produce gas, and the free radicals and other active groups produced by its decomposition also contribute to the crosslinking and curing of polymer matrices such as polyurethane. This dual effect enables the foaming material to form a uniform pore structure, and the size and distribution of the pores can be controlled by adjusting conditions such as their dosage, thereby improving the physical properties of the foaming material, such as reducing the material density, improving the material's elasticity and cushioning properties, etc.

Packaging

20kg/drum

