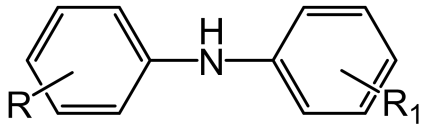
Technical Data Sheet

Antioxidant 5057 (AO)

Chemical Name: Benzenamine,N-phenyl-,reaction products with 2,4,4-trimethylpentene
CAS NO.: 68411-46-1
Structure:



R, R_1=H, C_4H_9, or C_8H_{17} and other alkyl chains

Features

Antioxidant 5057 is an active, liquid aromatic amine antioxidant for various polymers, including polyols and polyurethane. It is highly efficient and prevents, even at low concentrations, thermal degradation of polymers. AO 5057, when used in combination with a phenolic antioxidant, such as the liquid AO 1135, is very active in preventing scorching of polyurethane flexible foams. The low volatility and liquid nature of AO 5057 makes it ideally suited to many substrates and applications. AO 5057 is produced to contain a very low amount residual of diphenylamine, to address customer needs in some PUR markets.

Applications

The product is used in combination with hindered phenols, such AO 1135, as an excellent co-stabilizer in polyurethane foams. In the manufacture of flexible polyurethane slabstock foams, core discoloration or scorching results from the exothermic reaction of diisocyanate with polyol and diisocyanate with water. Proper stabilization of the polyol protects against oxidation during storage and transport of the polyol, as well as scorch protection during foaming. AO 5057 can also be used in other polymers such as elastomers and adhesives, and other organic substrates.

It can be widely used in various high-grade internal combustion engine oil, heat conduction oil, high temperature chain oil, hydraulic oil, compressor oil, turbine oil and other industrial lubricating oil and various greases and fuel oil, the general consumption is 0.3-0.5%.

Typical properties

Appearance	Clear amber liquid
Nitrogen content	4.3-5.0%
Kinematic viscosity (40℃)	200-500 mm^2/s
Density (20℃)	0.96-1.0 g/cm^3
TBN	152-192 mgKOH/g
Water content	≤0.1%

Package & Storage

Package: 180kg bucket or as customer`s requirement.

Storage: Keep container tightly closed in a dry and well-ventilated place. Storage and transportation temperature shall not exceed 45℃.

Safety

The use of proper protective equipment is recommended. Excess exposure to the product should be avoided. Wash thoroughly after handling.

All safety information is provided in the Safety Data Sheet.