TMG-AIBN

Product description

TMG-AIBN, a widely used azo compound, serves as a cost-effective free radical source and polymerization initiator. Upon thermal decomposition, it releases free radicals and nitrogen gas. Its low molecular weight offers a high mole-to-pound efficiency compared to other initiators. TMG-AIBN is mainly used in free radical polymerizations, producing polymers with low branching, cross-linking, and polydispersity. It remains stable across various pH levels, resists redox reactions, and can be safely combined with other initiators without triggering radical-induced decomposition.

Chemical Characteristics

Chemical Name	2,2'-Azobisisobutyronitrile
CAS	78-67-1
Appearance	White crystals
Solubility	Soluble in organic solvents. Insoluble in water
Assay	≥ 99.0 %
Melting point	99-103 ℃
Moisture content	≤ 0.3 %

Applications

- It is mainly used as initiator for polymerization of styrene, vinyl chloride, acrylonitrile, acrylates, and methacrylates.
- It is also used in PVC for blowing agent
- It is used in PU foam production and aids the creation of rigid and flexible foams for insulation, cushioning, and packaging applications.

Storage

Azo compounds are unstable and can degrade over time and with exposure to heat. TMG-AIBN should be stored in a dry, well-ventilated area at temperatures below 24 °C, away from sunlight, heat sources, flames, and ignition sources. Exposure to heat may lead to the degradation of the product and potentially hazardous decomposition, with a self-accelerating decomposition temperature (SADT) of 50 °C. It is important to keep the containers tightly sealed. If stored continuously below 8 °C, TMG-AIBN has a shelf life of 30 months.

Packaging

20 kg carton boxes

Special advice for security

Information concerning:

- classification and labelling according to the regulations governing transport and hazardous chemicals
- protective measures for storage and handling
- safety measures in case of accident and fire
- toxicity and ecological effects

are given in our material safety data sheets.