

Technical Data Sheet

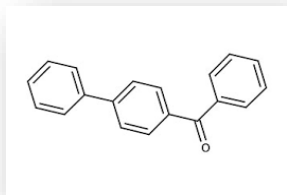
PRODUCT NAME: SUNEX CAT-4009

Product Descriptions:

SUNEX CAT-4009 is a chemically 4-phenylbenzophenone, commonly known as PBZ. It is an extremely efficient free radical Type-II photo initiator used primarily for UV polymerization of the corresponding resin along with a tertiary amine complexing agent.

Chemical Structure:

4-phenylbenzophenone is characterized by a five-membered ring containing nitrogen and a phenyl group. The chemical formula of 4-phenylbenzophenone is $C_{13}H_{11}N_3$.



It has a molecular weight of 211.24 g/mol. The structure can be represented by the following structural formula:

Active Advantages:

- ❖ SUNEX CAT-4009 absorbs UV light in the range of 320-390 nm, making it effective for initiating polymerization reactions in UV-curable systems.
- ❖ It is commonly used in combination with other photo initiators to provide a broader curing range and improve the overall curing efficiency.

Basic Properties:

- ❖ Appearance : White to off-white Flakes
- ❖ Purity (HPLC) : >98.5%
- ❖ Melting Point : 99-103°C
- ❖ Ash : <0.1%

Area of Application:

- ❖ Printing Inks & coatings
- ❖ Clear lacquers,
- ❖ Wood-coatings and optical-fiber coatings
- ❖ Adhesives

Packing Size:

- ❖ 25 & 50 Kg Container

Safety & Handling:

For safe handling must be follow instruction as under:

- ❖ It is sensitive to light, so it should be stored in a dark place and handled under yellow light.
- ❖ Should be kept away from light, temperature, and heat.
- ❖ Store in a cool and dark place to avoid polymerization.
- ❖ SUNEX CAT-4009 can be harmful to the skin and eyes and should be handled with care. It should be used with appropriate safety equipment, such as gloves and safety glasses.

Storage Conditions:

- ❖ It should be stored in dry place temperature in between 4-40 centigrade in original container kept tightly closed.

Disclaimer: All suggestions for use of our recommended products cited here are based on the results of tests carried out in our R&D lab and correct to the best of our knowledge and belief. However, no legal liability can be accepted with respect of such information as we cannot control the application procedures adopted by our users. We suggest having a pilot trial for the users prior to full commercialization of this product.