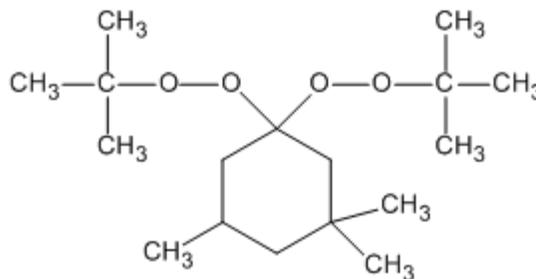


# LUPEROX® 231

## Polymer Initiator

### Introduction and Applications

Luperox® 231 polymer initiator is a cyclic peroxyketal initiator for the polymerization of styrenics. Luperox® 231 converts styrene monomer into high molecular weight polymers faster than using a thermal process alone. This productivity increase is seen in the conversion rate of styrene into polystyrene when Luperox® 231 is added during polymerization from 100°C to 130°C. For high-impact polystyrene synthesis, the di-radical generated by Luperox® 231 can also improve the polystyrene to rubber grafting ratio, resulting in higher impact performance products.



### Product Description

Chemical Name	CAS-No.	Wt/Wt
1,1-di-(tert-butylperoxy)-3,3,5-trimethylcyclohexane	6731-36-8	technically pure

### Standard Specifications

assay	≥ 92.0 %
active oxygen	≥ 9.73 %
t-butyl hydroperoxide	≤ 0.70 %

### Typical Physical Properties

SADT	60°C (140°F) 35 pound container
specific gravity	0.904 at 25°C (77°F)
freezing point	-40°C (-40°F)

### Half-Life Data

Half-life can be defined as the time required at a specific temperature, to affect a loss of one-half of the peroxide's active oxygen content. The efficiency of a free radical initiator depends upon its rate of decomposition.

Half-life data can be a useful guide in selecting the optimum initiator for a specific application. Several factors apply to half-life data obtained in dilute solution:

- Use only applies to thermolytic decomposition
- Half-life varies in different solvents due to induced decomposition if no radical scavenger is present

Time	Deg C	Deg F
10 hours	96	205
1 hour	115	239

### Temperature Tolerance

**Do not store above: 32°C (90°F)**

### Shelf-Life

Luperox® 231 polymer initiator has a shelf-life of 6 months from the date of Arkema delivery.

### Packaging

Luperox® 231 polymer initiator is packaged in 5-gallon jerricans.

### Availability

Luperox® 231 polymer initiator is available in North America from Arkema and authorized distributors. To discuss availability or speak to a salesperson, please call 844-LUPEROX.

**LUPEROX®**  
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