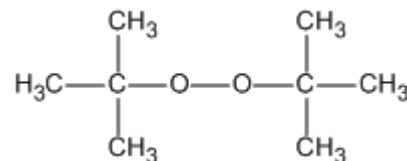


# LUPEROX® DI

## Polymer Initiator

### Introduction and Applications

Luperox® DI polymer initiator is a useful initiator for the high pressure polymerization of ethylene using both tubular and autoclave processes. According to the reactivity, the most suitable application area is in high temperatures of 250-290°C with pressures of 1800-2000 bar. In this scenario, the use of Luperox® DI polymer initiator improves the overall conversion of ethylene into polyethylene in the final step of polymerization.



### Product Description

| Chemical Name              | CAS-No.  | Wt/Wt            |
|----------------------------|----------|------------------|
| di-tertiary butyl peroxide | 110-05-4 | technically pure |

### Standard Specifications

|                       |          |
|-----------------------|----------|
| assay                 | ≥ 98.5   |
| active oxygen         | ≥ 10.78  |
| t-butyl hydroperoxide | ≤ 0.03 % |
| color, APHA           | ≤ 40     |

### Typical Physical Properties

|                           |                       |
|---------------------------|-----------------------|
| SADT                      | 180°F (82°C)          |
| auto-ignition temperature | 320°F (160°C)         |
| resistivity               | 830,000 MOhm.m (72°F) |
| freezing point            | -35°F (-37°C)         |

### 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.

| Time     | Deg C | Deg F |
|----------|-------|-------|
| 10 hours | 129.4 | 264.9 |
| 1 hour   | 149.1 | 300.4 |

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

### Temperature Tolerance

**Do not store above: 38°C (100°F)**

**Do not store below: -30°C (-22°F)**

### Shelf-Life

Luperox® DI polymer initiator has a shelf-life of 12 months from the date of Arkema delivery.

### Packaging

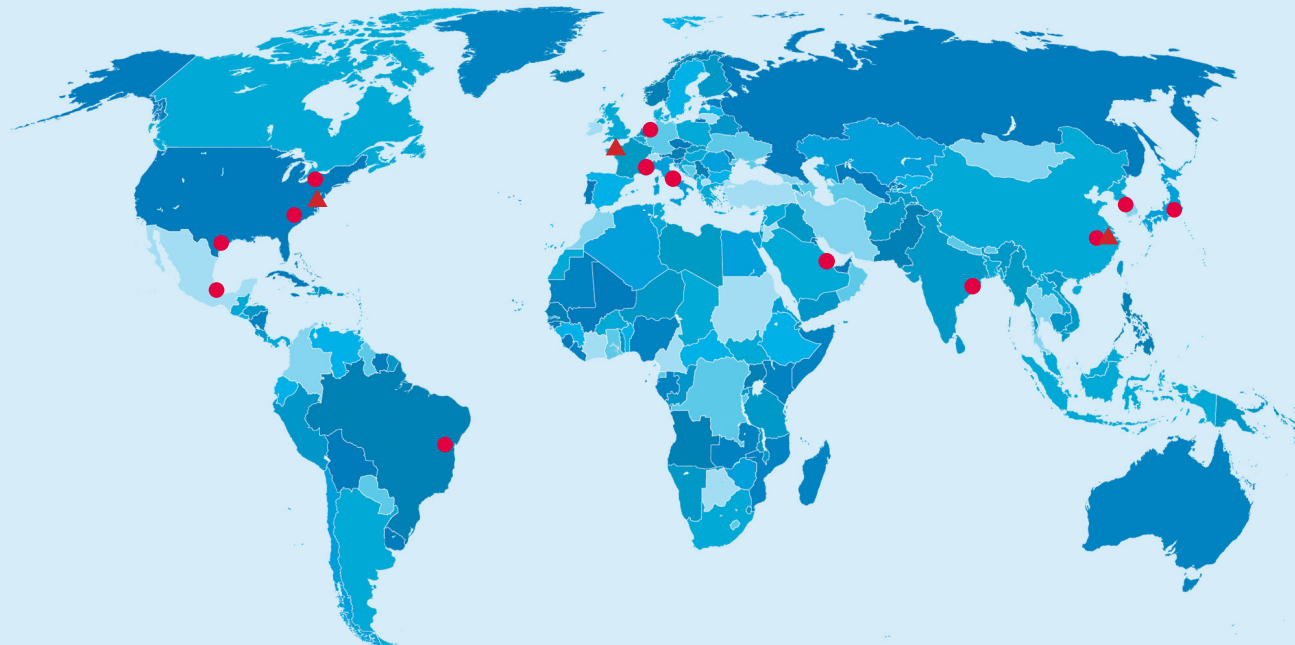
Luperox® DI polymer initiator is available packaged in 7-gallon jerricans, 15-gallon drums, and 55-gallon drums.

### Availability

Luperox® DI 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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# LUPEROX® ORGANIC PEROXIDES WORLDWIDE



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- Franklin, VA
- Crosby, TX
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