# **LUPEROX**® D-16

# Crosslinking Peroxide

# **Introduction and Applications**

Luperox® D-16 crosslinking peroxide is a low odor and highly efficient crosslinking or vulcanizing agent for elastomers and plastics. Luperox® D-16 has a slightly higher half-life than Vul-Cup® R crosslinking peroxide, but is a liquid at room temperature rather than a solid. Luperox® D-16 crosslinking peroxide has a broad utility for use in crosslinking a wide range of polymers including polyethylene, EVA, and ethylene-propylene rubbers. As it is a liquid, absorption of Luperox® D-16 into EVA occurs rapidly. This yields a compounding advantage over using Vul-Cup® R, particularly in wire and cable applications.

# **Product Description**

| Chemical Name             | CAS-No.   | Wt/Wt            |
|---------------------------|-----------|------------------|
| tert-butyl cumyl peroxide | 3457-61-2 | technically pure |

#### **Standard Specifications**

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|-------------------------|--------|--|--|--|
| assay                   | ≥ 96.0 |  |  |  |
| moisture, wt%           | ≤ 0.05 |  |  |  |

# Typical Physical Properties

| SADT       | 185° <b>F (85°C)</b> |
|------------|----------------------|
| flashpoint | 158°F (70°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.

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:

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

| Time       | Deg C | Deg F |
|------------|-------|-------|
| 10 minutes | 124   | 255   |
| 1 hour     | 144   | 291   |

### **Temperature Tolerance**

Do not store above: 38°C (100°F) Do not store below: 15°C (60°F)

#### Shelf-Life

Luperox® D-16 has a shelf-life of 12 months from the date of Arkema delivery.

#### **Packaging**

Luperox® D-16 is packaged in 5-gallon jerricans and 55-gallon drums.

#### **Availability**

Luperox® D-16 is available in North America from Arkema and authorized distributors. To discuss availability or speak to a salesperson, please call 844-LUPEROX.



### **LUPEROX® ORGANIC PEROXIDES WORLDWIDE**



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