

NOROX[®] 500

1,1-Di-(tert-butylperoxy)-3,3,5-trimethylcyclohexane

CAS#6731-36-8

Liquid

Description

Norox[®] 500 is a solution of 1,1-di(t-butylperoxy)-3,3,5-trimethyl cyclohexane with a minimum assay of 90%.

Technical Data

1,1-di(t-butylperoxy)-3,3,5-trimethyl cyclohexane:	95.0 min
Active oxygen	10.05 min
Form:	Liquid
Color:	Water White
Specific Gravity @ 25°C:	0.910
Melting Point:	-30°C (-22°F)
Vapor Pressure:	43.2 mm Hg/83°C
Flash Point (SETA Closed Cup):	40°C (104°F)
Ignition Point (ASTM 456):	456°C (853°F)

Application

Norox[®] 500 is used as a polymerization initiator. It can also be used as a cross-linking agent for various olefinic polymers or co-polymers including Polyethylene, Ethylene-Vinyl Acetate and Ethylene-Propylene Rubber. Norox[®] 500 can also be used as a vulcanizing agent for synthetic rubbers and a high temperature curing agent for unsaturated polyester resins.

STORAGE

- Storage at 30°C (86°F) or below is recommended.
- Store in original containers away from flammables and all sources of heat, sparks, or flames; out of direct sunlight; and away from cobalt naphthenate, other promoters, accelerators, oxidizing or reducing agents and strong acids or bases.
- Leaking containers – Remove and isolate in a safe area. Re-package or dispose immediately (see spills).
- Never store in refrigerators containing food and/or beverages.
- Consult National Fire Protection Association (NFPA) Code 432 and/or local regulatory agencies.
- Rotate stock, use oldest date first.

HANDLING

- Norox[®] 500 is a combustible oxidizing liquid, which must be handled with care.

- Inform all personnel of procedures for safe handling and review MSDS with them.
- Remove from storage area only the amount needed for immediate usage.
- Wear safety glasses or goggles and chemical resistant gloves.
- Keep away from heat, flames, and sparks.
- Avoid breathing vapors.
- Never add peroxides directly to promoters or vice-versa, violent decomposition can occur.

FIRST AID

- EYES – Flush immediately with large amounts of fresh water and continue washing for at least 15 minutes. Medical attention is needed.
- SKIN – Wash with soap and water.
- INGESTION – Administer large amounts of milk or water and call a physician immediately. Do not induce vomiting. As an aid to the physician, suggest calling your local Poison Control Center.

SPILLS

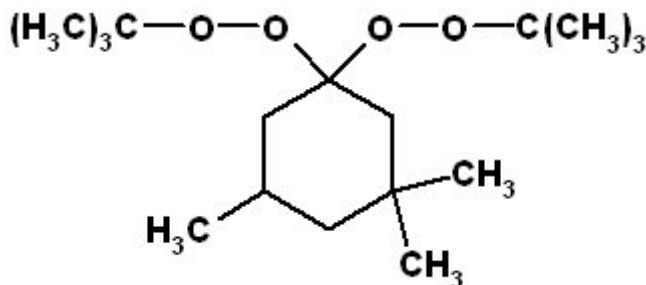
- Soak spilled material with water. The addition of water will reduce the concentration of the peroxide and will reduce its hazard potential.
- Clean up immediately by absorbing with inert non-acidic material – vermiculite or sand.
- After absorbing, moderately wet immediately with water and place in a clean plastic bag inside a plastic pail.
- Dispose of immediately in accordance with local, state, and federal regulations.

NOTE: Spilled peroxides, if not immediately cleaned up, can become contaminated and ignite or decompose in a hazardous, violent manner.

FIRE

- Peroxides ignite readily and burn vigorously with acceleration.
- Use water from a safe distance – preferably with a water-fog nozzle.
- For very small fires, an extinguisher with carbon dioxide, foam, or dry chemical may be effective.
- In case of fire in or near a storage area, cool stored containers with water spray.

Chemical Structure:



Molecular Weight 302.4
Empirical Formula – C₁₇H₃₄O₄
CAS No. 6731-36-8

THERMAL DECOMPOSITION DATA (Half-Life 1.2 mole/liter in Benzene)

Temperature	90°C (194°F)	109°C (228°F)	149°C (300°F)
Time	10 hrs.	1 hr.	0.1 hr.

PACKAGING, SHIPPING & AVAILABILITY

- The standard package sizes of NOROX[®] 500 are 44 lb (20 kg) polyethylene bottles.
- Classification – Please refer to the specific NOROX[®] 500 Safety Data Sheet (SDS) under section 14 & 15, shipping & regulatory information. **NOTE:** SDS's for all United Initiators, Inc. products may be requested by contacting the company.
- NOROX[®] 500 is available through a global network. Call United Initiators, Inc. for the name of the distributor in your area.

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