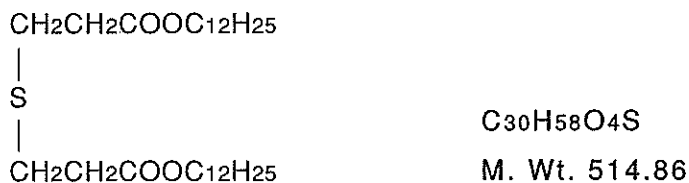


Antioxidant

**DLTP** "YOSHITOMI"

DLTP "yoshitomi" is an effective antioxidant designed for protection of plastics, rubber, synthetic fiber, fats and oils, petroleum products against deterioration, discoloration and rancidity. Used in combination with other stabilizers, it has been proved particularly effective as a result of synergy. The combination with primary phenolic antioxidants is practiced most frequently.

Composition



Dilauryl Thiodipropionate

Specifications

Appearance : white granule  
 Melting Range : 39.5-42.0°C  
 Volatile Matter : 0.05% max.  
 Ash : 0.01% max.  
 Acid Value : 0.05 max.  
 Saponification Value : 216.4-219.4

Solubility

Readily soluble in benzene, toluene, acetone, naphtha and methylene chloride.  
 Practically insoluble in glycerine, propylene glycol and ethylene glycol.  
 Insoluble in water.

Toxicity

LD<sub>50</sub> (mice, oral) : more than 2,000 mg/kg body weight  
 LD<sub>50</sub> (rats, oral) : more than 2,500 mg/kg body weight  
 LD<sub>50</sub> (mice, intraperitoneal) : more than 2,000 mg/kg body weight

## Characteristics

1. DLTP "yoshitomi" has a good compatibility with plastics, rubber, petroleum products, fats and oils and, being of non-staining type, it is most suited for use in white or pure-colored products.
2. DLTP "yoshitomi" provides an invariably potent antioxidant effect even in high-temperature process of polyolefine.
3. Used in combination with primary phenolic antioxidants such as YOSHINOX BB or YOSHINOX SR\* it has proved more effective. A combination use with UV-absorbers is also promising for a synergized effect.
4. DLTP "yoshitomi" is free from any serious toxic effects.

## Applications

1. As polyolefine stabilizer  
DLTP "yoshitomi" is used as a stabilizer for polyolefine and polyethylene. It improves the weather- and heat-resistance of the products, and protects them against loss of hardness or deterioration in high-temperature process.
2. As antioxidant for food-packaging materials  
DLTP "yoshitomi" provides a good utility as an antioxidant for polypropylene and polyethylene films for food wrappings.  
Limit of addition of the substance to food as a result of use in food wrappings is 0.005%. (FDA, Code of Federal Regulations § 121.2001)
3. As antioxidant for PVC, acrylic resin, ABS resin and other plastics
4. As antioxidant for fats and oils  
FDA limit of addition to fats and oils is 0.02%.  
(Code of Federal Regulations § 121.101)
5. As lubricant or an additive to lubricating oil
6. As plasticizer for natural and synthetic rubber or plastics

## Use

Usually, the recommended range of concentration is 0.02-1.0%.

## Caution

The melting range of DLTP "yoshitomi" lies around 40°C. So, the product should be stored in dark and cool place. Especially in summer season special care must be taken in storage.

## Package

20 kg in paper bag, 20 kg PE bog.

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\* YOSHINOX SR : 4,4'-Thio-bis (6-tert-butyl-3 methyl phenol)

YOSHINOX BB : 4,4'-Butylidene-bis (6-tert-butyl-3 methyl phenol)