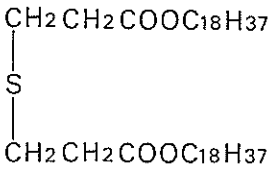
Antioxidant

DSTP "YOSHITOMI"

DSTP "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 synergic action. The combination with primary phenolic antioxidants is practiced most frequently.

Composition



$C_{42}H_{82}O_4S$
M. Wt. 683.22

Distearyl Thiodipropionate

Specifications

Appearance :	white powder
Melting Range :	63.5-68.5°C
Volatile Matter :	0.05% max.
Ash :	0.01% max.
Acid Value :	0.05% max.
Saponification Value :	160-170

Solubility

Readily soluble in benzene, toluene, ether. Slightly soluble in cold methanol, ethanol, isopropanol. Soluble in hot ethanol and isopropanol. Insoluble in water, glycerine, propylene glycol.

Toxicity

LD_{50} (mice & rats, oral) : more than 2,000 mg/kg body weight
LD_{50} (mice, intraperitoneal) : more than 2,000 mg/kg body weight

Characteristics

1. DSTP "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. DSTP "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 with UV-absorbers is also promising for a synergic action.
4. DSTP "yoshitomi" is free from any serious toxic effects.

Applications

1. As plastic stabilizer

   DSTP "yoshitomi" shows a remarkable potency of preventing degradation, aging and discoloration of resin due to oxidation in polyethylene, polypropyrene, ABS and other plastics.

2. As antioxidant for food-packaging materials

   DSTP "yoshitomi" provides a good utility as an antioxidnat for polypropyrene and polyethylene films for food wrappings. Limit of addition of the substance in food as a result of use in food wrappings is 0.005%. (FDA, Code of Federal Regulations § 121.2001)

3. As antioxidant for general fats and oils, lubricants, waxes.

4. For prevention of oson deterioration of natural and synthetic rubber.

Use

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

Package

20 kg in paper bag, 50 kg fiber drum

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