

# Material Safety Data Sheet

## Antioxidant DLTDP

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Antioxidant DLTDP

Chemical name: didodecyl 3,3'-thiodipropionate

CAS Number: 123-28-4

Synonym names: antioxidant dltp,Irganox ps 800

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: stabilizer

#### 1.1. Details of the supplier of the safety data sheet

##### 1.2. Details of the supplier of the safety data sheet

Dongguan Baoxu Chemical Technology.,Ltd.

Address: caijing business Bldg DongGuan CN 523071

Tel 0769 22821082 Fax 86 0769 22821083

Website:www.additivesforpolymer.com

Email:info@additivesforpolymer.com

### SECTION 2: Hazards Identification

#### 2.1. Classification of the substance or mixture

According to Regulation (EC) No 1272/2008 [CLP]

No need for classification according to GHS criteria for this product.

## **2.2. Label elements**

Globally Harmonized System, EU (GHS)

The product does not require a hazard warning label in accordance with GHS criteria.

## **2.3. Other hazards**

According to Regulation (EC) No 1272/2008 [CLP]

The product is under certain conditions capable of dust explosion.

# **SECTION 3: Composition/Information on Ingredients**

## **3.1. Substances**

Chemical nature

Didodecyl 3,3'-thiodipropionate

CAS Number: 123-28-4

EC-Number: 204-614-1

## **3.2. Mixtures**

Not applicable

# **SECTION 4: First-Aid Measures**

## **4.1. Description of first aid measures**

Remove contaminated clothing.

If inhaled:

If difficulties occur after dust has been inhaled, remove to fresh air and seek medical attention.

On skin contact:

Wash thoroughly with soap and water.

On contact with eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

#### **4.2. Most important symptoms and effects, both acute and delayed**

Symptoms: No significant reaction of the human body to the product known.

#### **4.3. Indication of any immediate medical attention and special treatment needed**

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

### **SECTION 5: Fire-Fighting Measures**

#### **5.1. Extinguishing media**

Suitable extinguishing media: dry powder, foam

Unsuitable extinguishing media for safety reasons: carbon dioxide

Additional information:

Avoid whirling up the material/product because of the danger of dust explosion.

#### **5.2. Special hazards arising from the substance or mixture**

harmful vapours

Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

#### **5.3. Advice for fire-fighters**

Special protective equipment:

Wear a self-contained breathing apparatus.

Further information:

The degree of risk is governed by the burning substance and the fire conditions.

Contaminated extinguishing water must be disposed of in accordance with official regulations.

### **SECTION 6: Accidental Release Measures**

#### **6.1. Personal precautions, protective equipment and emergency procedures**

Avoid dust formation. Use personal protective clothing.

#### **6.2. Environmental precautions**

Contain contaminated water/firefighting water. Do not discharge into drains/surface

#### **6.3. Methods and material for containment and cleaning up**

For small amounts: Pick up with suitable appliance and dispose of.

For large amounts: Contain with dust binding material and dispose of.  
Avoid raising dust.

#### **6.4. Reference to other sections**

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

### **SECTION 7: Handling and Storage**

#### **7.1. Precautions for safe handling**

Breathing must be protected when large quantities are decanted without local exhaust ventilation. Protection against fire and explosion:  
Avoid dust formation. Take precautionary measures against static discharges.

Dust explosion class: Dust explosion class 1 (Kst-value >0 up to 200 bar m s<sup>-1</sup>).

#### **7.2. Conditions for safe storage, including any incompatibilities**

Further information on storage conditions: Keep container tightly closed and dry; store in a cool place.

#### **7.3. Specific end use(s)**

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

### **SECTION 8: Exposure Controls/Personal Protection**

#### **8.1. Control parameters**

Components with occupational exposure limits

No occupational exposure limits known.

#### PNEC

A PNEC could not be derived as the substance showed no toxic effects in studies performed in the range of its solubility. At the present state of knowledge, no negative ecological effects are expected.

#### DNEL

worker:

Long- and short-term exposure - systemic effects, Inhalation: 24.7 mg/m<sup>3</sup> worker:

Long- and short-term exposure - systemic effects, dermal: 3.5 mg/kg

consumer:

Long- and short-term exposure - systemic effects, Inhalation: 6.1 mg/m<sup>3</sup>

consumer:

Long- and short-term exposure - systemic effects, dermal: 1.75 mg/kg consumer:

Long- and short-term exposure - systemic effects, oral: 1.75 mg/kg

## 8.2. Exposure controls

### Personal protective equipment

Hand protection:

Chemical resistant protective gloves (EN 374)

Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), polyvinylchloride (0.7 mm) and other Supplementary note:

The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

General safety and hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is recommended.

## SECTION 9: Physical and Chemical Properties

### 9.1. Information on basic physical and chemical properties

Form:	powder	
Colour:	white	
Odour:	mild	
Odour threshold: pH	No applicable information available. 6.6 (1 %(m), 20 - 25 °C)	
Melting point:	(as suspension)	
Boiling point:	39 - 41 °C	
Flash point:	not applicable 219 °C	(DIN 51584)
Evaporation rate:	The product is a non-volatile solid. not highly flammable	

Lower explosion limit:	For solids not relevant for classification and labelling.	
Upper explosion limit:	For solids not relevant for classification and labelling. 320 °C	
Ignition temperature:	0.0000066	
Vapour pressure:	Pa (20 °C)	
Density:	1.04 g/cm <sup>3</sup>	
Relative density:	(25 °C)	
Solubility in water:	approx.	
	< 1	
	mg/l	
	(20 °C)	
Solubility (quantitative) solvent(s):	trichloromethane; chloroform	
	> 740	(Directive 92/69/EEC, A.6)
	g/l	
	(20 °C)	
Solubility (quantitative) solvent(s):	n-hexane	
	140	
	g/l	
	(20 °C)	
Partitioning coefficient n-octanol/water (log Kow):	> 6	(calculated)
Thermal decomposition:	> 350 °C	
Viscosity, dynamic:	not determined	
Explosion hazard:	not explosive	

## 9.2. Other information

Bulk density:	400 - 450 g/l	
	not applicable	
Adsorption/water - soil:	log KOC: 6.973	(calculated)
Other Information:		

If necessary, information on other physical and chemical parameters is indicated in this

## SECTION 10: Stability and Reactivity

### 10.1. Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Formation of flammable gases:	Remarks:	Forms no flammable gases in the presence of water.
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### 10.2. Chemical stability

The product is stable if stored and handled as prescribed/indicated.

### **10.3. Possibility of hazardous reactions**

In spite of the dedusting carried out for reasons of industrial health the product resp. the fine dust of the product is capable of dust explosion.

### **10.4. Conditions to avoid**

Avoid dust formation. Avoid deposition of dust. Avoid sources of ignition. Avoid electro-static discharge.

### **10.5. Incompatible materials**

Substances to avoid:

strong acids, strong bases, strong oxidizing agents

### **10.6. Hazardous decomposition products**

Hazardous decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated.

## **SECTION 11: Toxicological Information**

### **11.1. Information on toxicological effects**

Acute toxicity

Assessment of acute toxicity:

Virtually nontoxic after a single skin contact. Virtually nontoxic after a single ingestion.

Experimental/calculated data:

LD50 rat (oral): > 5,000 mg/kg (OECD Guideline 401)

(by inhalation): No data available.

LD50 rat (dermal): > 2,000 mg/kg (OECD Guideline 402)

Irritation

Assessment of irritating effects:

Not irritating to eyes and skin.

Experimental/calculated data:

Skin corrosion/irritation rabbit: non-irritant (Draize test)

Serious eye damage/irritation rabbit: non-irritant (Draize test)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Respiratory/Skin sensitization

Assessment of sensitization:

Skin sensitizing effects were not observed in animal studies.

Experimental/calculated data:

Maurer optimisation test guinea pig: Non-sensitizing.

Guinea pig maximization test guinea pig: Non-sensitizing. (OECD Guideline 406)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

#### Germ cell mutagenicity

Assessment of mutagenicity:

No mutagenic effect was found in various tests with bacteria and mammalian cell culture. The substance was not mutagenic in a test with mammals.

#### Carcinogenicity

Assessment of carcinogenicity:

No reliable data was available concerning carcinogenic activity.

Reproductive toxicity Assessment of reproduction toxicity:

Repeated oral uptake of the substance did not cause damage to the reproductive organs.

Developmental toxicity Assessment of teratogenicity:

No indications of a developmental toxic / teratogenic effect were seen in animal studies.

#### Specific target organ toxicity (single exposure)

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

#### Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

The substance may cause damage to the heart after repeated ingestion of high doses, as shown in animal studies. Observed effects were reversible.

No aspiration hazard expected.



## SECTION 12: Ecological Information

### 12.1. Toxicity

Assessment of aquatic toxicity:

No toxic effects occur within the range of solubility. There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Toxicity to fish:

LC50 (96 h) > 71 mg/l, *Brachydanio rerio* (OECD Guideline 203, static)

The LC50 is higher than the solubility limit. The product has low solubility in the test medium.

An aqueous solution prepared with solubilizers has been tested. The statement of the toxic effect relates to the analytically determined concentration.

Aquatic invertebrates:

EC50 (24 h) > 10 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, static)

The EC50 is higher than the solubility limit. The product has low solubility in the test medium.

An aqueous solution prepared with solubilizers has been tested. Nominal concentration.

Aquatic plants:

EC50 (72 h) 33.9 mg/l (biomass), *Scenedesmus subspicatus* (Guideline 92/69/EEC, C.3, static)

The EC50 is higher than the solubility limit. The product has low solubility in the test medium.

An aqueous solution prepared with solubilizers has been tested. Nominal concentration.

Microorganisms/Effect on activated sludge:

EC20 (3 h) > 100 mg/l, activated sludge, domestic (OECD Guideline 209, aquatic)

Limit concentration test only (LIMIT test). Nominal concentration.

Chronic toxicity to fish:

No data available regarding toxicity to fish.

Chronic toxicity to aquatic invertebrates:

No data available regarding toxicity to daphnids.

Assessment of terrestrial toxicity:

No data available concerning terrestrial toxicity.

### 12.2. Persistence and degradability

Assessment biodegradation and elimination (H<sub>2</sub>O):

Readily biodegradable (according to OECD criteria).

Assessment of stability in water:

Study scientifically not justified.

### **12.3. Bioaccumulative potential**

Assessment bioaccumulation potential:

| Significant accumulation in organisms is not to be expected.

Bioaccumulation potential:

The product has not been tested. The statement has been derived from the structure of the product.

### **12.4. Mobility in soil**

Assessment transport between environmental compartments:

Volatility: The substance will not evaporate into the atmosphere from the water surface.

Adsorption in soil: No data available.

### **12.5. Results of PBT and vPvB assessment**

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

### **12.6. Other adverse effects**

The product does not contain substances that are listed in Annex I of Regulation (EC) 2037/2000 on substances that deplete the ozone layer.

## **SECTION 13: Disposal Considerations**

### **13.1. Waste treatment methods**

Must be disposed of or incinerated in accordance with local regulations.

Contaminated packaging:

Uncontaminated packaging can be re-used.

Packs that cannot be cleaned should be disposed of in the same manner as the contents.

## **SECTION 14: Transport Information**

### **Land transport**

ADR

UN number:

Not classified as a dangerous good under transport regulations

UN proper shipping name: Not  
Transport hazard class(es): applicable  
Packing group: Not  
Environmental hazards: applicable  
Special precautions for

RID

Not classified as a dangerous good under transport regulations

UN number: Not applicable  
UN proper shipping name: Transport hazard class(es): Packing group: Not applicable  
Environmental hazards: Not applicable  
Special precautions for

### **Inland waterway transport**

ADN

Not classified as a dangerous good under transport regulations

UN number: Not applicable  
UN proper shipping name: Transport hazard class(es): Packing group: Not applicable  
Environmental hazards: Not applicable  
Special precautions for

Transport in inland waterway vessel Not evaluated

### **Sea transport**

IMDG

Not classified as a dangerous good under transport regulations

UN number: Not applicable  
UN proper shipping name: Transport hazard class(es): Packing group: Not applicable  
Environmental hazards: Not applicable  
Special precautions for

### **Air transport**

IATA/ICAO

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping	Not applicable
Transport hazard	: Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

#### **14.1. UN number**

See corresponding entries for “UN number” for the respective regulations in the tables above.

#### **14.2. UN proper shipping name**

See corresponding for “UN proper shipping name” for the respective regulations in the above.

#### **14.3. Transport hazard class(es)**

See corresponding for “Transport hazard class(es)” for the respective regulations in the tables above.

#### **14.4. Packing group**

See corresponding entries for “Packing group” for the respective regulations in the tables

#### **14.5. Environmental hazards**

See corresponding entries for “Environmental hazards” for the respective regulations in the above.

#### **14.6. Special precautions for user**

See corresponding entries for “Special precautions for user” for the respective regulations in tables above.

#### **14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code**

Regulation:	Not evaluated
Shipment approved:	Not evaluated
Pollution name:	Not evaluated
Pollution category:	Not evaluated
Ship Type:	Not evaluated

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### **SECTION 15: Regulatory Information**

#### **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

02.06.2017 If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

**15.2. Chemical Safety Assessment**

Chemical Safety Assessment not yet performed due to registration timelines

**SECTION 16: Other Information**