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## Material Safety Data Sheet

### 1. Identification of the Substance/Preparation and the Company/Undertaking

Chemical name: **Ultraviolet absorbent UV-326**

#### Chemical characterization:

2-(2'-Hydroxy-3'-tert-butyl-5'-methylphenyl)-5-chlorobenzotriazole

**CAS Number: 3896-11-5**

Producer/Supplier: Shanghai Deborn Co., Ltd  
Add:RM604,NO.233,Ru Shan Road, Pu Dong, Shanghai, China  
Tel: 86-21-68962123  
Fax:86-21- 68963669

### 2. Composition/Information on Ingredients

| CAS Number | Product Name   | Content | Symbol(s) | R-Phrase(s) |
|------------|--|---------|-----------|-------------|
| 3896-11-5  | 2-(2'-Hydroxy-3'-tert-butyl-5'-methylphenyl)-5-chlorobenzotriazole | 100 %   |           | R53         |

### 3. Hazards Identification

May cause long-term adverse effects in the aquatic environment.

### 4. First Aid Measures

#### Skin contact

Wash off with soap and plenty of water. Do not use organic solvents.

#### Eye contact

Rinse immediately with plenty of water for at least 15 minutes. In case of eye irritation, seek medical attention.

#### Inhalation

Move to fresh air. In case of irritation of respiratory system or mucous membranes, seek medical attention. In case of indisposition, seek medical attention. In case of prolonged exposure, seek medical attention.

#### Ingestion

Immediately give plenty (> 500 ml) of water (if possible charcoal slurry). In case of spontaneous vomiting be sure that vomitus can freely drain due of danger of suffocation. Give water repeatedly. Artificial induction of vomiting should be restricted to first aid staff. Give nothing by mouth in cases of unconsciousness or convulsion. Seek medical advice.

### 5. Fire-Fighting Measures

#### Suitable extinguishing media

Water spray, Carbon dioxide (CO<sub>2</sub>), Foam, Dry powder

#### Extinguishing media which must not be used for safety reasons

High volume water jet

#### Exposure hazards

Contaminated water from fire hoses or sprinklers, etc., must be prevented from draining into watercourses, sewers, or the ground water. Sufficient measures must be taken to retain water used for extinguishing. Contaminated water and soil must be disposed of in conformity with local regulations.

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### **Special protective equipment for firefighters**

Wear full protective clothing. Wear self-contained breathing apparatus.

### **Hazardous decomposition products**

Oxides of carbon, Oxides of nitrogen (NOx), Hydrogen chloride, Toxic gases/vapours

## **6. Accidental Release Measures**

### **Personal precautions**

Do not breathe vapours/dust. Remove all sources of ignition. Avoid contact with skin, eyes and clothing.

### **Environmental precautions**

Do not flush into surface water, sanitary sewer or ground water system.

### **Methods for cleaning up**

Use mechanical handling equipment. Collect the spilled product into suitable containers, which must be tightly sealed and properly labelled. Avoid dust formation.

## **7. Handling and Storage**

### **Handling**

Handle and open container with care. Avoid dust formation and ignition sources. Ensure good local exhaust ventilation.

Do not eat, drink or smoke at the workplace.

### **Storage**

Keep away from food and drink. Store in the original container securely closed.

Danger! Explosion risk. Risk of explosion if an air-dust mixture forms. Avoid creating dusty conditions. Empty only into earthed containers. If container is larger than 2000 liter in volume, or when flammable solvents are present inert container or use a system otherwise designed to prevent or contain an explosion -- seek expert advice.

## **8. Exposure Controls / Personal Protection**

### **Exposure limit(s)**

Value 6.0 mg/m<sup>3</sup>

*Justification to exposure limit* Effects on blood, liver and heart in animal studies

### **Technical measures/Precautions**

Exposure limit(s) should be monitored using suitable analytical equipments.

### **Respiratory protection**

Effective dust mask

### **Hand protection**

Protective gloves

### **Eye protection**

Suitable goggles or face protection

### **Skin and body protection**

Working clothes, closed footwear

## **9. Physical and Chemical Properties**

### **Form**

powder

### **Colour**

slightly yellow

### **Odour**

odourless

### **Melting/freezing temperature**

138 - 141 °C

### **Boiling point/range**

not applicable

### **Density**

25 °C 1.3 g/cm<sup>3</sup>

### **Flash point**

238 °C DIN 51584

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|   |                  |
|---|------------------|
| <b>Ignition Temperature</b>                     | 420 °C DIN 51794 |
| <b>Oxidising properties</b>                     | not tested       |
| <b>Self-ignition temperature</b>                | not tested       |
| <b>Water solubility 20 °C</b>                   | < 1 mg/l         |
| <b>Vapour pressure 20 °C</b>                    | 7.5E-7 Pa        |
| <b>Partition coefficient; Log Pow 20 - 25°C</b> | > 6              |
| <b>pH-value 1 % suspension in water 20-25°C</b> | 5.86             |
| <b>Explosive properties</b>                     | not tested       |

**10. Stability and Reactivity****Thermal Stability****Decomposition temperature** > 350 °C**Conditions to avoid**

Static discharges.

**Materials to avoid**

Strong acids, strong bases and strong oxidizing agents.

**Hazardous decomposition products**

Oxides of carbon, Oxides of nitrogen (NOx), Hydrogen chloride, Toxic gases/vapours

**11. Toxicological Information****Acute oral toxicity**

LD50 &gt; 2000 mg/kg

*Rat***Acute dermal**

not irritant

**irritation/corrosion***Rabbit***Acute eye irritation/corrosion**

not irritant

*Rabbit***Acute skin sensitisation**

not sensitizing

*Guinea pig***12. Ecological Information****Acute toxicity to fish***Zebra fish (Brachydanio rerio) 96 h LC50* > 100 mg/l**Acute toxicity to daphnia**

EC50 100 mg/l

*Daphnia magna 24 h***Acute toxicity to bacteria**

IC50 &gt; 100 mg/l

*Sewage sludge 3 h***Acute toxicity to algae**

EC50 &gt; 100 mg/l

*Scenedesmus sp. 72 h***Biodegradability**

Not biodegradable

**Ecotoxic effects**

Do not discharge product unmonitored into the environment.

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### 13. Disposal Considerations

#### Waste from residues / unused products

Residual chemical should be disposed by incineration or by other modes of disposal in compliance with local legislation.

#### Contaminated packaging

Contaminated packaging material should be treated equivalent to residual chemical. Clean packaging material should be subjected to waste management schemes (recovery recycling, reuse) according to local legislation.

### 14. Transport Information

|                |        |
|----------------|--------|
| Flash point    | 238 °C |
| ADR/RID Class: | Free   |
| IMO Class:     | Free   |
| ICAO Class:    | Free   |

### 15. Regulatory Information

EC-Number 223-445-4

Contains 2-(5-chloro(2H)-benzotriazole-2-yl)-4-(methyl)-6-(tert-butyl)phenol

Classification Self-classification

R-Phrase(s) R53 May cause long-term adverse effects in the aquatic environment.

S-Phrase(s) S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

### 16. Other Information

Essential changes New layout

TH is a registered trademark.

#### ***Important***

THIS MATERIAL IS NOT INTENDED FOR USE IN PRODUCTS FOR WHICH PROLONGED CONTACT WITH MUCOUS MEMBRANES, BODY FLUIDS OR ABRADED SKIN, OR IMPLANTATION WITHIN THE HUMAN BODY, IS SPECIFICALLY INTENDED, UNLESS THE FINISHED PRODUCT HAS BEEN TESTED IN ACCORDANCE WITH NATIONALLY AND INTERNATIONALLY APPLICABLE SAFETY TESTING REQUIREMENTS. BECAUSE OF THE WIDE RANGE OF SUCH POTENTIAL USES, CIBA IS NOT ABLE TO RECOMMEND THIS MATERIAL AS SAFE AND EFFECTIVE FOR SUCH USES AND ASSUMES NO LIABILITY FOR SUCH USES.

This product should be stored, handled and used in accordance with good industrial hygiene practices and in conformity with any legal regulation. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.