



## CSFC TAIWAN ENTERPRISE CORPORATION

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### MATERIAL SAFETY DATA SHEET CSFC OB

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#### SECTION 1 IDENTIFICATION OF THE SUBSTANCE

**Trade name:** CSFC OB

**Chemical name:** 2,2'-(2,5-thiophenediyl)bis[5-tert-butylbenzoxazole]

**CAS number:** 7128-64-5

**Product use:** Optical brightener for plastics and paints

#### SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical description: Substances presenting a health or environmental hazard

EC-Number	CAS Number	Chemical Name	Content	Symbol(s)	R-Phrase(s)
	7128-64-5	2,2'-(2,5-thiophenediyl) bis[5-tert-butylbenzoxazole]	99%		

**Chemical characterization:** Optical Brightener

#### SECTION 3 HAZARDS IDENTIFICATION

Classified as hazardous according the EU directives.

Xi Irritant

N Dangerous for the environment

May cause sensitization by skin contact.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

#### SECTION 4 FIRST AID MEASURES

**Contact with skin:** Wipe with absorbent paper or textile towels. Wash off with soap and plenty of water. Do not use organic solvents. In case of dermatitis, seek medical attention.

**Contact with eyes:** Rinse immediately with plenty of water for at least 15 minutes. In case of eye irritation, 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 to 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.

**Inhalation:** Move to fresh air. In case of irritation of respiratory system or mucous membranes, seek medical attention. In case of in disposition, seek medical attention. In case of prolonged exposure, seek medical attention.

#### SECTION 5 FIRE-FIGHTING MEASURES

**Suitable extinguishing media**



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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.

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

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

### **Combustion products**

Oxides of carbon; Oxides of nitrogen (NO<sub>x</sub>); Toxic gases/vapours

## **SECTION 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**

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Collect the spilled product into suitable containers, which must be tightly sealed and properly labeled

## **SECTION 7 HANDLING AND STORAGE**

**Handling precautions:** Dangerous for the environment. Handle and open container with care.

Avoid vapor formation and ignition sources. Ensure good local exhaust ventilation. Do not eat, drink or smoke at the workplace

**Storage conditions:** Keep away from food and drink. Store in the original container securely closed. This product can form an ignitable vapour/air mixture. Take precautionary measures against static discharges, e.g. by using proper earthing techniques. Caution, keep this product well sealed. Keep in cool, dry place. Close containers immediately after use.

## **SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **Precautionary measures:**

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

**Respiratory protection:** In case of insufficient ventilation wear suitable respiratory equipment.

**Protection for hands:** Protective gloves.

**Eye protection:** Suitable goggles or face protection

**Protection for skin:** Working clothes, Closed footwear

**Exposure limit(s) (ACGIH): (8 hour time weighted average)**



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1 mg/m<sup>3</sup>

Skin sensitising in animal study

### SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Form</b>	odorless	
<b>Colour</b>	yellowish	
<b>Melting/freezing temperature</b>	200-202°C	
<b>Boiling point/range</b>	N/D	
<b>Relative density 20 °C</b>	1.26 g/cm <sup>3</sup>	
<b>Flash point</b>	>350 °C	
<b>Flammability</b>	not tested	
<b>Oxidising properties</b>	not tested	
<b>Self-ignition temperature</b>	not tested	
<b>Water solubility 20 °C</b>	< 0.01 %	Tested as preparation
<b>Solubility</b>	not tested	
<b>Vapor pressure 20 °C</b>	2.6 E-8 Pa	Tested as preparation
<b>pH-value 1 % suspension in water 20 - 25°C</b>	6.0-6.4	Tested as preparation
<b>Explosive properties</b>	not tested	
<b>Evaporation rate</b>	not tested	
<b>Vapor density</b>	not tested	

### SECTION 10 STABILITY AND REACTIVITY

<b>Decomposition temperature</b>	350°C	Tested as preparation
<b>Conditions to avoid</b>	No special conditions.	
<b>Materials to avoid</b>	Strong acids, strong bases and strong oxidizing agents.	
<b>Hazardous decomposition products</b>	Oxides of carbon, Oxides of nitrogen (NO <sub>x</sub> ), Toxic gases/vapors	

### SECTION 11 TOXICOLOGICAL INFORMATION

<b>Acute oral toxicity</b> <i>Rat</i>	LD <sub>50</sub> > 2000 mg/kg	Tested as preparation
<b>Acute dermal toxicity</b> <i>Rat</i>	L D <sub>50</sub> > 2000 mg/kg	Tested as preparation
<b>Acute Inhalation Toxicity</b>	not tested	
<b>Acute eye irritation/corrosion</b> <i>Rabbit</i>	not irritant	Tested as preparation
<b>Acute dermal irritation/corrosion</b>	not irritant	EPA-Guideline Tested as preparation



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*Rabbit*

**Acute skin sensitization** sensitizing OECD 406 Tested as preparation

*Guinea pig*

### SECTION 12 ECOLOGICAL INFORMATION

**Acute toxicity to fish** LC50 >100mg/l OECD 203 Tested as preparation

*Bluegill 96 h*

**Acute toxicity to daphnia** EC50 >100mg/l OECD 202 Tested as preparation

*Daphnia magna 24 h*

**Acute toxicity to bacteria** IC50 > 200 mg/l OECD 209 Tested as preparation

*Sewage sludge 3 h*

**Acute toxicity to algae** not tested

**Biodegradability** Partially but not readily  
 Biodegradable OECD 301 E Tested as preparation

#### Eco toxic effects

Do not discharge product uncontrolled into the environment.

### SECTION 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.

### SECTION 14 TRANSPORT INFORMATION

**Flash point** > 350 °C

**ADR/RID** Class: free

**IMO** Class: free

**ICAO** Class: free

### SECTION 15 REGULATORY INFORMATION

**Classification** Self-classification

**Symbol(s)** Xi Irritant

N Dangerous for the environment

**R-Phrase(s)** R53 Zmay cause long9trem adverse effects in the aquatic environment.

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

**Contains** 2,2'-(2,5-thiophenediyl)bis[5-tert-butylbenzoxazole]

### SECTION 16 OTHER INFORMATION



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**Essential changes**

**New layout**

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