



CSFC TAIWAN ENTERPRISE CORPORATION

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MATERIAL SAFETY DATA SHEET CSFC 360

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SECTION 1 IDENTIFICATION OF THE SUBSTANCE

Product name CSFC 360
Chemical identification 2,2'-Methylenebis(6-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol)
CAS Number 103597-45-1

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

CAS Number	Product Name	Content	R-Phrase(s)
103597-45-1	2,2'-Methylenebis(6-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol)	100%	R53

SECTION 3 HAZARDS IDENTIFICATION

May cause long-term adverse effects in the aquatic environment

SECTION 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 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.

SECTION 5 FIRE-FIGHTING MEASURES

Suitable extinguishing media

Water spray, Carbon dioxide (CO₂), Foam, Dry powder

Extinguishing media which must not be used for safety reasons

High volume water jet

Exposure hazards



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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 (NOx); 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

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

SECTION 7 HANDLING AND STORAGE

Handling

Harmful. 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.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit(s)

Exposure limit (8 hour time weighted average)

Value 10 mg/m³

Justification to exposure limit Effects on liver and kidney 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



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Eye protection

Suitable goggles or face protection

Skin and body protection

Working clothes , Closed footwear

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Form	powder	
Colour	slightly yellow	
Odour	odourless	
Melting/freezing temperature	>195 °C	
Boiling point/range	not applicable	
Relative density 20 °C	1.2 g/cm ³	
Flash point	--	
Ignition Temperature	400 °C	BAM
Oxidising properties	not tested	
Self-ignition temperature	no self-ignition	
Water solubility 20 °C	< 0.007 mg/l	
Vapour pressure 25 °C	<0.01 Pa	
Partition coefficient; Log Pow	12.7	
<i>20 - 25°C</i>		
pH-value 1 % suspension in water	--	
<i>20 - 25°C</i>		
Explosive properties	not tested	

SECTION 10 STABILITY AND REACTIVITY

Decomposition temperature	> 360 °C
Conditions to avoid	Static discharges.
Materials to avoid	Strong acids, strong bases and strong oxidising agents.
Hazardous decomposition products	Oxides of carbon, Oxides of nitrogen (NO _x), Toxic gases/vapours

SECTION 11 TOXICOLOGICAL INFORMATION

Acute oral toxicity	LD50 > 2000 mg/kg
<i>Rat</i>	
Acute eye irritation/corrosion	not irritant
<i>Rabbit</i>	
Acute dermal irritation/corrosion	not irritant
<i>Rabbit</i>	
Acute skin sensitisation	not sensitising



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Guinea pig

Further information

Following prolonged exposure, lymph node swelling (inflammation) was observed in rats.

SECTION 12 ECOLOGICAL INFORMATION

Acute toxicity to fish LC50 > 12.7 mg/l

Zebra fish (Brachydanio rerio) 96 h

Acute toxicity to daphnia EC50 >50.2 mg/l

Daphnia magna 24 h 20 °C

Acute toxicity to bacteria IC50 > 100 mg/l

Sewage sludge 3 h

Acute toxicity to algae EC50 >2.0 mg/l

Scenedesmus sp. 72 h

Biodegradability <1.5

Ecotoxic 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 not tested

ADR/RID Class: Free

IMO Class: Free

ICAO Class: Free

SECTION 15 REGULATORY INFORMATION

EC-Number 4.0-800-1

Contains 2,2'-Methylenebis(6-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol)

Classification Classification according to EU, Annex 1; EC Label
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.

SECTION 16 OTHER INFORMATION

Essential changes New layout



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