



## **MATERIAL SAFETY DATA SHEET**

### **Manufacturer/information service:**

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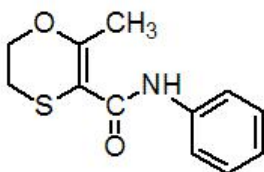
### **1. Chemical Product Identification**

Product Name: Carboxin TC

Molecular Formula:  $C_{12}H_{13}NO_2S$

Molecular Weight: 235.3 g/mol

Structural Formula:



Chemical Name: 5,6-dihydro-2-methyl-1,4-oxathiine-3-carboxanilide (IUPAC)

Color: White

Odor: slight odor

CAS No.: 5234-68-4

### **2. Composition / Information on Ingredients**

<b>Composition</b>	<b>CAS No.</b>	<b>Content</b>
Carboxin	5234-68-4	97.0%
Others		3.0%

### **3. Hazards Identification**

<b>Composition</b>	<b>Synpol</b>	<b>R phrases</b>
Carboxin	Xn	R36/38/48



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More important danger for the man: none

Dangers for the environment: Soil DT50<1d(20°C), Koc71.

Physical-chemical dangers: Not applicable

#### 4. First Aid Measures

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses after first 5 minutes. Then continue rinsing eye. Call a Poison control Center or doctor for treatment advice.

If inhaled: remove person to fresh air. Apply artificial respiration if symptoms indicate. Call a physician.

If on skin: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a Poison Control Center or doctor for treatment advice.

If swallowed: Call a Poison Control Center or doctor for treatment advice. Do not induce vomiting unless told to do so by a Poison Control Center or doctor. Do not give anything by mouth to an unconscious person.

#### 5. Fire-Fighting Measures

Fire and explosion hazards: not inflammable and not explosive

Extinguishing media: Non-combustible liquid. Use extinguishing media for underlying cause of fire.

Measures of personal protection: Chemical resistant gloves, protective clothing and eye protection should be worn when handling. Launder clothing before reuse. In the absence of adequate ventilation, use NIOSH- certified respiratory protection. Environmental cautions EX: prevent the contamination of the floor and of beds of water.

#### 6. Accidental Release Measures

**Personal cautions:** Avoid all personal contact. Observe good personal hygiene.

##### **Cleaning methods**

**SMALL SPILLS:** Wear protective equipment to prevent skin and eye contamination. Contain-prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers for disposal. Wash area down with detergent and excess water.

**LARGE SPILLS:** Slippery when spilled. Avoid accidents, clean up immediately. Wear



protective equipment to prevent skin and eye contamination and the inhalation of vapours. Contain-prevent run off into drains and waterways. Use absorbent(soil, sand or other inert material). Collect and seal in properly labelled drums for disposal. Wash area down with detergent and excess water. If contamination of crops or waterways has occurred advise emergency services or State Department of Agriculture.

## 7. Handling And Storage

**Handling:** wearing protective clothing when handling.

**Storage:** store in a cold and dry location, be far away from fire, heat, food and feed.

**Technical protective measures:** sufficient ventilation to minimize dust exposure. Protect closed dust handling systems against possible dust explosions. Avoid dust accumulations on building or equipment surfaces.

**Fire and explosion protection:** not inflammable.

## 8. Exposure Controls / Personal Protection

### Personal protective equipment

**Respiratory protection:** approved respirator

**Hand and skin protection :** chemical resistant gloves and protective clothing

**Eye protection:** goggles

**Industrial hygiene:** use good industrial hygiene. Wear face shield or goggles, elbow length PVC gloves, cotton overalls buttoned to the neck and wrist, washable hat and half face respirator with dust and vapour cartridge. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

## 9. Physical And Chemical Properties

Appearance: white crystals

Boiling point: not available

Density: 1.45

Water solubility: in water 0.147g/L( 20°C)

Other solubility: Soluble in organic solvents, such as acetone 221.2, methanol 89.33, ethyl acetate 107.7(all in g/L,20)

PH value: 6-9

Flash point: not-applicable



## **10. Stability And Reactivity**

Reactivity: stable for at least 2 years at ambient temperatures. Stable to hydrolysis at pH 5, pH7, and pH9 (25°C), In aqueous solutions exposed to light, DT50 1.54h (pH 7, 25°C)

Conditions to avoid: In condition of heat and humidity Hazardous decomposition products: Hydrogen cyanide, cyanide salts.

Hazardous reaction: not applicable

## **11. Toxicological Information**

Acute oral LD50 for rat: 2588 a.i.mg/kg.

Acute dermal LD50 for rat: >4000 a.i.mg/kg.

Inhalation LC50 (4 h) for rat: >4.7 a.i. mg/L.

Eye irritation: Non-irritating to eyes (rabbits)

Skin irritation: Non-irritating to skin (rabbits)

Skin sensitisation: Not a skin sensitizer (guinea pigs).

## **12. Ecological And Eco-toxicological Information**

Effect on birds: low toxicity to birds, acute oral LD50 for Bobwhites quail is >2150 a.i.mg/kg.

Effect on fish: moderate toxicity to fish, acute 96 hour LC50 for Rainbow trout is 2.3 a.i.mg/L.

Effect on aquatic invertebrates: moderate toxicity to aquatic invertebrates, acute 48 hour EC50 for Daphnia magna is >57 a.i.mg/L.

Effect on algae: moderate toxicity to algae, acute 72 hour EC50 for Pseudokirchneriella subcapitata is 0.48 a.i.mg/L.

Effect on honeybees: low toxicity to honeybees, contact acute 48 hour LD50 is >100 a.i.µg/bee; oral acute 48 hour LD50 is >100 a.i.µg/bee.

Effect on earthworms: moderate toxicity to earthworms, acute 14 day LC50 for Eisenia foetida is >250 a.i.mg/kg.

## **13. Disposal Considerations**

Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean



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containers to recycler or designated collection point. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

### **14. Transport Information**

Not applicable

### **15. Regulatory Information**

Not applicable

### **16. Other Information**

All information and instructions provided in this MSDS are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons in receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product.