



MATERIAL SAFETY DATA SHEET

CROWN

Version: 1.6
Date of Issue: 10/08/2009
Date printed: 10/08/2009

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : CROWN

Chemical name: Fungicide

Use of substance/preparation: Fungicide

Supplier: Chemtura Canada Co./Cie
25 ERB STREET
Elmira, Ontario N3B 3A3 Canada

Manufacturer: Chemtura Corporation
199 Benson Road
Middlebury, CT 06749 USA

Emergency telephone number: 866-744-3060 (Canada 24 hours)
CANUTEC (24 hours) 613-996-6666 (call collect)

Environmental, Health and Safety Department: 866-430-2775

Customer Care: +44 161 875 3800

Prepared by Product Safety Department Date of Issue: 10/08/2009
(US) +1 866-430-2775
(EU) +44 (0) 1753.603.000
Email: MSDSRequest@chemtura.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
CAUTION!
MAY CAUSE EYE AND SKIN IRRITATION.

3. COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT	% BY WEIGHT
Carboxin CAS# 5234-68-4	9
Thiabendazol CAS# 148-79-8	5.7
Ethylene glycol	10 - 30

(M)SDS# 000000034579



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CAS# 107-21-1

WHMIS CLASSIFICATION

This product is registered under the Pest Control Products Act and is therefore exempt from WHMIS supplier labeling and MSDS requirements. Please read entire MSDS and product label for safety precautions.

CPR Compliance

This product has been classified with the hazard criteria of the CPR, and the MSDS contains all the information required by CPR.

4. FIRST AID MEASURES

Swallowing

If patient is fully conscious, give two glasses of water. Do not induce vomiting unless told to do so by the poison control center or doctor. Obtain medical attention immediately. Do not give milk, oily products, fat or alcohol. Do not give anything by mouth to an unconscious person.

Inhalation

Remove to fresh air. Give artificial respiration if not breathing. Obtain medical attention.

Skin contact

Wash skin with soap and water. Remove contaminated clothing. Wash clothing before re-use. Obtain medical attention if irritation persists.

Eye contact

Immediately flush eyes with water and continue washing for at least 15 minutes. Obtain medical attention.

Notes to physician

ROUTES OF ENTRY: Eyes, skin, ingestion, inhalation, mist.

The principal toxic effects of ethylene glycol, when swallowed, are kidney damage and metabolic acidosis. Ethanol is antidotal, and its early administration may block the formation of nephrotoxic metabolites of ethylene glycol in the liver. Ethanol should be given intravenously, as a 5% solution in sodium bicarbonate, at a rate of about 10 ml ethanol per hour. A desired therapeutic level of ethanol in the blood is 100 mg/dl. Hemodialysis may be required. 4-Methylpyrazole, a potent inhibitor of alcohol dehydrogenase, has been used therapeutically to decrease the metabolic consequences of ethylene glycol poisoning before coma, seizure, and renal failure have occurred (20 mg/kg/day). Pulmonary edema with hypoxemia has been described in a number of patients following poisoning with ethylene glycol. The mechanism of production has not been elucidated, but it appears to be noncardiogenic in origin in several cases. Respiratory support with mechanical ventilation and positive end- expiratory pressure may be required. There may be cranial nerve involvement in the late stages of toxicity from swallowed ethylene glycol. In particular, effects have been reported involving the seventh, eighth and ninth cranial nerves, presenting with bilateral facial paralysis, diminished hearing, and dysphagia.

5. FIRE-FIGHTING MEASURES

Flash point: > 98 °C

Hazardous combustion products

Oxides of carbon.
Oxides of nitrogen.
Oxides of sulfur.

Special fire fighting procedures

Do not discharge extinguishing waters into streams, rivers and lakes.

Special protective equipment for firefighters

Body covering protective clothing, full "turn-out" gear.
Self-contained breathing apparatus.

Extinguishing media

Suitable: Large fires:
- alcohol-type foam or universal-type foams
Small fires:
- CO2
- dry chemical

Unsuitable: - water jets

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6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear suitable protective equipment., Avoid contact with eyes and skin.

Environmental precautions

Prevent from entering sewer system, surface water or soil.

Methods for cleaning up

Observe government regulations.

Small spills: Absorb on inert material such as sand, earth, vermiculite.
Collect for disposal.

Large spills Dike to contain spill.
Pump excess material into suitable container (metal drums, metal tank, or such).

7. HANDLING AND STORAGE

HANDLING

Handling precautions

Do not get in eyes., Avoid prolonged or repeated contact with skin., Avoid breathing vapor., Use with adequate ventilation., Wash thoroughly after handling.

Other precautions

NOTE TO END-USERS: The employee protection recommendations on this MSDS may differ from those on the product label. For normal use of this product, always refer to the personal protective equipment requirements on the product label.

STORAGE

Storage requirements

Store in a cool, dry place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

Consult local authorities for acceptable provincial values.

<u>Component</u>	<u>Country</u>	<u>Type</u>	<u>Value</u>	<u>Remark</u>
Ethylene glycol	USA	Ceiling, ACGIH	100 mg/m3	(aerosol)

PERSONAL PROTECTION

Respiratory protection

In the absence of engineering controls sufficient to maintain airborne concentrations below recommended occupational exposure limit values, appropriate respiratory protection should be utilized., The determination of appropriate respiratory protection is best performed, on a case by case basis, taking into consideration the exposure conditions of the particular operation. The respirator manufacturer should be consulted to ensure that the air-purifying cartridges utilized will provide adequate protection for the exposure conditions and period of wear concerned. For emergency conditions where the exposure limit may be greatly exceeded, use an approved positive-pressure self-contained breathing apparatus.

Hand protection / protective gloves

Chemical resistant protective gloves

Eye protection

Safety glasses with side shields.

Skin protection

Wear protective clothing, such as long sleeves to minimize skin contact.

Other protective equipment

Eye bath, Safety shower

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ENGINEERING CONTROLS

Ventilation

General (mechanical) room ventilation is expected to be satisfactory., Special, local ventilation is needed at points where vapors can be expected to escape to the workplace air.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Physical state	Liquid
Color	Pink
Odor	Mild sweet
Odor threshold	Not available

OTHER PROPERTIES

Boiling point	Not available
Melting point	Not available
Solidification	< -8 °C
pH	6.7 - 7.3
Density	0.99 - 1.1 g/cm ³ at 15.6 °C
Solubility in water	Partially soluble
Solubility in organic solvents	No data available.
Evaporation rate (Butyl Acetate=1)	Not available
Partitioning coefficient	Not available
Flash point	> 98 °C Method: Tag Closed Cup
Autoignition temperature	Not available

10. STABILITY AND REACTIVITY

Stability: This product is stable under normal storage and handling conditions.

Stability - Conditions to avoid:

Strong oxidizing agents.
Strong bases.

Hazardous combustion products:

Oxides of carbon.
Oxides of nitrogen.
Oxides of sulfur.



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11. TOXICOLOGICAL INFORMATION

<u>Component data</u> Carboxin Acute toxicity - Swallowing:	LD50 - Rat Result: 2,900 mg/kg
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<u>Component data</u> Ethylene glycol Acute toxicity - Swallowing:	LD50 - Rat (Females) Result: 4,700 mg/kg
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<u>Component data</u> Carboxin Chronic toxicity - Swallowing:	NOEL - Rat Result: 5.5 mg/kg Exposure time: 90 d
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<u>Component data</u> Carboxin Acute toxicity - Skin absorption:	LD50 - Rabbit Result: > 4,000 mg/kg
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<u>Component data</u> Ethylene glycol Acute toxicity - Skin absorption:	LD50 - Rabbit Result: 10,670 mg/kg
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<u>Component data</u> Carboxin Chronic toxicity - Skin absorption:	NOEL - Rats Result: 30 mg/kg Exposure time: 28 d
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<u>Component data</u> Carboxin Acute toxicity - Inhalation:	LC50 - Rat Result: > 4.7 mg/l Exposure time: 4 h
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<u>Component data</u> Carboxin Skin irritation - Skin contact:	Species: Rabbit Result: Not irritating
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<u>Component data</u> Ethylene glycol Skin irritation - Skin contact:	Species: Rabbit Result: Minor irritation
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<u>Component data</u> Carboxin Eye irritation - Eye contact:	Species: Rabbit Result: Mild irritation
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SENSITIZATION
Test results: Remark: Test results are based on analogy with a similar material.
Non sensitizing.

<u>Component data</u> Carboxin Sensitization:	Species: Guinea pigs Result: Non sensitizing. Method: Bühler-Test
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<u>Component data</u> Carboxin Sensitization:	Species: Guinea pigs Result: sensitizing Classification: not sensitizing Method: Magnusson-Kligmann-Test
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CARCINOGENICITY
Component (Ethylene glycol): IARC Group 3: cannot be classified as carcinogenic to humans.



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12. ECOLOGICAL INFORMATION

<u>Component ecotoxicology</u> Carboxin Acute toxicity fish:	LC50 - Rainbow trout (Oncorhynchus mykiss) Result: 2.3 mg/l Exposure time: 96 h
<u>Component ecotoxicology</u> Carboxin Acute toxicity fish:	LC50 - Bluegill (Lepomis macrochirus) Result: 3.6 mg/l Exposure time: 96 h
<u>Component ecotoxicology</u> Ethylene glycol Chronic toxicity fish:	EC50 - Rainbow trout (Oncorhynchus mykiss) Result: 41,000 mg/l Exposure time: 4 d
<u>Component ecotoxicology</u> Ethylene glycol Chronic toxicity fish:	Static LC50 - Rainbow trout (Oncorhynchus mykiss) Result: 40,761 mg/l Exposure time: 4 d
<u>Component ecotoxicology</u> Carboxin Aquatic toxicity to plants:	EC50 - Selenastrum capricornutum Result: 0.48 mg/l Exposure time: 120 h
<u>Component ecotoxicology</u> Ethylene glycol Microorganisms:	EC50 - Selenastrum capricornutum Result: 1,300 - 6,500 mg/l Exposure time: 96 h
<u>Component ecotoxicology</u> Ethylene glycol Microorganisms:	EC50 - Photobacterium phosphoreum: Result: 620 mg/l Exposure time: 0.5 h
<u>Component ecotoxicology</u> Carboxin Acute toxicity to aquatic invertebrates:	EC50 - Water flea (Daphnia magna) Result: > 57 mg/l Exposure time: 48 h
<u>Component ecotoxicology</u> Thiabendazol Acute toxicity to aquatic invertebrates:	LC50 - Water flea (Daphnia magna) Result: .45 ppm

13. DISPOSAL CONSIDERATIONS

General: Dispose of waste material in compliance with all federal, provincial and local regulations., Do not discharge to sewers and natural waters.

14. TRANSPORT INFORMATION

IMDG Classification

This product is not regulated by IMDG.

ICAO/IATA Classification

This product is not regulated by ICAO.

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15. REGULATORY INFORMATION

WHMIS CLASSIFICATION

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CPR Compliance

This product has been classified with the hazard criteria of the CPR, and the MSDS contains all the information required by CPR.

CHEMICAL INVENTORY

Canada: All substances in this product are exempt from the DSL as this product is registered under the Pest Control Products Act., PCP# 23430

16. OTHER INFORMATION

STP	Standard temperature and pressure
W/W	Weight/Weight

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THE OPINIONS EXPRESSED HEREIN ARE THOSE OF QUALIFIED EXPERTS WITHIN CHEMTURA CORPORATION. WE BELIEVE THAT THE INFORMATION CONTAINED HEREIN IS CURRENT AS OF THE DATE OF THIS SAFETY DATA SHEET. SINCE THE USE OF THIS INFORMATION AND OF THESE OPINIONS AND THE CONDITIONS OF USE OF THIS PRODUCT ARE NOT WITHIN THE CONTROL OF CHEMTURA CORPORATION, IT IS THE USER'S OBLIGATION TO DETERMINE THE CONDITIONS OF SAFE USE OF THE PRODUCTS.

Filename: CROWN.rtf
Directory: C:\Documents and Settings\RDwan\Desktop\Crop Canada
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Subject:
Author: Ralph Merkle
Keywords:
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