



# Material Safety Data Sheet

## VITAFLO 280

Version: 2.2

Revision Date: 03/24/2011

Print Date: 05/19/2011

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: *VITAFLO 280*

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

Telephone: 866-430-2775

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

For additional emergency telephone numbers see section 16 of the Safety Data Sheet.

Prepared by: Product Safety Department  
(US) +1 866-430-2775

03/24/2011

+011-886-2-2712-5668      MSDSRequest@chemtura.com

### SECTION 2. HAZARDS IDENTIFICATION

#### Emergency Overview

#### CAUTION!

Colour: light pink

Odour: mild sweet

Hazard Summary

:  
May cause eye and skin irritation.  
Consumption of alcoholic beverages increases the toxic effects of this chemical (Thiram).  
Consumption of alcohol should be avoided before and after exposure.

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.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Hazardous components



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Component / CAS-No.	Weight percent
carboxin 5234-68-4	15.59 %
thiram 137-26-8	13.25 %
Ethylene glycol 107-21-1	10 - 30 %

Ingredients not precisely identified are non-hazardous and/or proprietary.

### SECTION 4. FIRST AID MEASURES

#### First aid procedures

- Inhalation : Remove to fresh air.  
Give artificial respiration if not breathing.  
Obtain medical attention.
- Skin contact : Wash off with warm water and soap.  
Remove contaminated clothing and shoes.  
Wash clothing before reuse.  
If symptoms persist, call a physician.
- Eye contact : Immediately flush eyes with water and continue washing for at least 15 minutes.  
Obtain medical attention.
- Ingestion : If victim is fully conscious, give a cupful of water.  
Do not induce vomiting without medical advice.  
Get medical attention immediately.  
Do not give milk, oily products, fat or alcohol.

### SECTION 5. FIRE-FIGHTING MEASURES

#### Flammable properties

- Flash point : Remarks: no data available
- Ignition temperature : Remarks: not determined
- Lower explosion limit : Remarks: no data available
- Upper explosion limit : Remarks: no data available

#### Fire fighting

- Suitable extinguishing media : Extinguishing media - large fires  
Alcohol-resistant foam  
Small fires:  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical  
Water spray
- Unsuitable extinguishing media : Water spray jet



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

### Protective equipment and precautions for firefighters

Special protective equipment for fire-fighters : Body covering protective clothing, full "turn-out" gear.  
Self-contained breathing apparatus.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Wear suitable protective equipment.  
Avoid contact with skin and eyes.

Environmental precautions : Prevent from entering sewer system, surface water or soil.

Methods for containment /  
Methods for cleaning up : Absorb on inert material such as sand, earth, vermiculite.  
Collect for disposal.  
Dam up.  
Large spills should be collected mechanically (remove by pumping) for disposal.  
Pump excess material into suitable container (metal drums, metal tank, or such).  
  
Observe government regulations.

## SECTION 7. HANDLING AND STORAGE

### Handling

Handling procedures : Do not eat, drink or smoke when handling.  
Avoid contact with skin, eyes and clothing.  
Avoid inhalation of vapour or mist.  
Use with adequate ventilation.  
Wash thoroughly after handling.  
Wash thoroughly after handling.

### Storage

Requirements for storage areas and containers : Keep in a dry, cool place.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

### Components with workplace control parameters

Components / CAS-No.	Value / Basis / Update	Control parameters	Further information
thiram 137-26-8	TWA CA AB OEL 2007-01-01	1 mg/m3	
	TWAEV CA ON OEL	1 mg/m3	



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	2005-12-17		
	TWAEV CA QC OEL 2006-12-29	5 mg/m3	
Ethylene glycol 107-21-1	CEV CA ON OEL 2005-12-17	100 mg/m3	
	C CA BC OEL 2006-11-29	50 ppm	
	(c) CA AB OEL 2007-01-01	100 mg/m3	
	C CA BC OEL 2006-11-29	100 mg/m3	
	C CA QC OEL 2006-12-29	50 ppm 127 mg/m3	
	TWA CA BC OEL 2006-11-29	10 mg/m3	
	STEL CA BC OEL 2006-11-29	20 mg/m3	
	(c) CA AB OEL 2009-04-30	100 mg/m3	

### Engineering measures

### Personal protective equipment

Eye protection : Safety glasses with side-shields

Hand protection : Impervious gloves



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- Skin and body protection : Preventive skin 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.  
A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.
- Hygiene measures : Do not store near food, feed or fertilizers.  
Do not contaminate ponds, lakes, streams, or any source of water.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Appearance

- Physical state : liquid  
Colour : light pink
- Odour : mild  
sweet

#### Safety data

- Flash point : Note: no data available
- Ignition temperature : Remarks: not determined
- Lower explosion limit : Note: no data available
- Upper explosion limit : Note: no data available
- pH : ca. 7.8
- Melting point/range : -4 °F (-20 °C)
- Density : ca.1.117 g/cm<sup>3</sup>
- Water solubility : Note: no data available
- Partition coefficient: n-octanol/water : Note: no data available
- Viscosity, kinematic : Note: no data available

### SECTION 10. STABILITY AND REACTIVITY

- Materials to avoid : Remarks: Oxidizing agents  
Strong acids and strong bases
- Hazardous decomposition : Note: Carbon oxides



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products Other hazardous decomposition products may be formed.

Hazardous reactions : Hazardous polymerisation does not occur.

### SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : LD50: 4,587 mg/kg  
Species: rat  
Remarks: Test results are based on analogy with a similar material.

Acute inhalation toxicity : LC50: > 1.0 mg/l  
Exposure time: 4 h  
Species: rat

Acute dermal toxicity : LD50: > 2,000 mg/kg  
Species: rat  
Remarks: Test results are based on analogy with a similar material.

Skin irritation : Species: rabbit  
Result: Moderate skin irritation  
Remarks: Test results are based on analogy with a similar material.

: Species: rabbit  
Result: Skin irritation

Eye irritation : Species: rabbit  
Result: Moderate eye irritation  
Remarks: Test results are based on analogy with a similar material.

: Species: rabbit  
Classification: No eye irritation

Sensitisation : Species: guinea pig  
Classification: Non sensitizing.  
Remarks: Test results are based on analogy with a similar material.

CMR effects  
carboxin : Carcinogenicity: Animal testing did not show any carcinogenic effects.  
Mutagenicity: Animal testing did not show any mutagenic effects.  
Teratogenicity: No effects on or via lactation  
Reproductive toxicity: No toxicity to reproduction

thiram : Carcinogenicity: Animal testing did not show any carcinogenic effects.  
Mutagenicity: In vitro tests showed mutagenic effects  
Reproductive toxicity: No effects on or via lactation



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Further information : The following information is applicable to a component of this material:

### 12. ECOLOGICAL INFORMATION

Toxicity to fish  
carboxin

: LC50: 2.3 mg/l  
Exposure time: 96 h

Species: *Oncorhynchus mykiss* (rainbow trout)  
flow-through test  
LC50: 3.6 mg/l  
Exposure time: 96 h

thiram

: LC50: 0.13 mg/l  
Exposure time: 96 h

Species: *Lepomis macrochirus* (Bluegill sunfish)  
flow-through test

Species: *Oncorhynchus mykiss* (rainbow trout)

Toxicity to daphnia and other aquatic invertebrates.  
carboxin

: EC50: > 57 mg/l  
Exposure time: 48 h  
Species: *Daphnia magna* (Water flea)  
flow-through test

thiram

: EC50: 0.21 mg/l  
Exposure time: 48 h  
Species: *Daphnia magna* (Water flea)

Toxicity to algae  
carboxin

: EC50: 1.9 mg/l  
Exposure time: 96 h  
Species: *Chlorella vulgaris* (Fresh water algae)  
Growth inhibition

thiram

: 0.4517 mg/l  
Exposure time: 96 h  
Species: *Chlorella vulgaris* (Fresh water algae)

0.14 mg/l  
Exposure time: 96 h  
Species: *Scenedesmus capricornutum* (fresh water algae)

Toxicity to fish (Chronic toxicity)  
carboxin

: NOEC: 0.32 mg/l  
Exposure time: 21 d  
Species: *Cyprinus carpio* (Carp)

Toxicity to daphnia and other aquatic invertebrates. (Chronic toxicity)  
carboxin

: NOEC: 0.32 mg/l  
Exposure time: 17 d  
Species: *Daphnia magna* (Water flea)



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thiram : 0.008 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)

Biodegradability  
carboxin : Result: According to the results of tests of biodegradability this product is not readily biodegradable.

### Further information on ecology

## SECTION 13. DISPOSAL CONSIDERATIONS

Further information : Dispose of waste material in compliance with all federal, state, and local regulations.  
The product should not be allowed to enter drains, water courses or the soil.

## SECTION 14. TRANSPORT INFORMATION

### TDG

Not dangerous goods

### IATA

UN number : 3082  
Description of the goods : Environmentally hazardous substance, liquid, n.o.s.  
(Carboxin, Thiram)  
Class : 9  
Packing group : III  
Labels : 9  
Environmentally hazardous : no

### IMDG

UN number : 3082  
Description of the goods : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S.  
(Carboxin, Thiram)  
Class : 9  
Packing group : III  
Labels : 9  
EmS Number 1 : F-A  
EmS Number 2 : S-F  
Marine pollutant : yes  
CarboxinThiram  
Environmentally hazardous : yes  
Carboxin Thiram





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### SECTION 15. REGULATORY INFORMATION

**WHMIS Classification** :

**The components of this product are reported in the following inventories:**

**REACH** On the inventory, or in compliance with the inventory

**CH INV** Not in compliance with the inventory

**US.TSCA** Not On TSCA Inventory

**DSL** This product contains the following components that are not on the Canadian DSL nor NDSL lists.

**AICS** On the inventory, or in compliance with the inventory

**NZIoC** Not in compliance with the inventory

**ENCS** Not in compliance with the inventory

**ISHL** Not in compliance with the inventory



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**KECI** Not in compliance with the inventory

**PICCS** Not in compliance with the inventory

**IECSC** Not in compliance with the inventory

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

Ce produit a été classé selon les critères de risque du RPC et la FS contient toutes les informations exigées par le RPC.

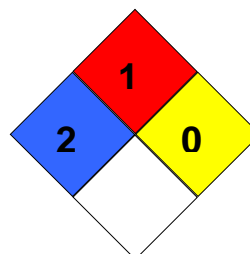
Ce produit a été classé selon les critères de risque du RPC et la FDS contient toutes les informations exigées par le RPC.

### SECTION 16. OTHER INFORMATION

#### Further information

#### Further information

**NFPA Classification** : Health hazard: 2  
Fire Hazard: 1  
Reactivity Hazard: 0



#### Other Emergency Phone Number

<u>Latin America:</u>	Brazil	+55 113 711 9144
	All other countries	+44 (0) 1235 239 670
<u>Mexico:</u>		+52 555 004 8763

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.