



# Material Safety Data Sheet

## PRO-GRO®

Version: 1.5

Revision Date: 10/10/2013

Print Date: 10/10/2013

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: *PRO-GRO®*

Product Use Description: Plant protection agent

Chemical nature: Fungicide

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

Telephone: (US) +1 866-430-2775

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

10/10/2013

MSDSRequest@chemtura.com

### SECTION 2. HAZARDS IDENTIFICATION

#### Emergency Overview

#### **DANGER!**

Form: solid      Colour: off-white      Odour: slight musty

Hazard Summary : Irritating to eyes.  
May cause sensitization by skin contact.  
May cause cancer.  
May be harmful if absorbed through skin.  
Consumption of alcoholic beverages increases the toxic effects of this chemical (Thiram).

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.

#### Potential Health Effects

Primary Routes of Entry : Skin contact  
Inhalation



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	Eye contact
Target Organs	: Liver Kidney Central nervous system Lungs
Inhalation	: May cause respiratory tract irritation.
Skin	: May cause skin irritation. May be harmful if absorbed through skin.
Eyes	: Irritating to eyes.
Ingestion	: May be harmful if swallowed.
Chronic Exposure	: Long term inhalation of crystalline silica dusts may cause lung disease (silicosis). Long term inhalation exposure may cause effects in the following: Cancer
Carcinogenicity: <b>IARC</b>	Group 1: Carcinogenic to humans kaolin (Particulates) 1332-58-7
Carcinogenicity:	Group 2B: Possibly carcinogenic to humans titanium dioxide 13463-67-7
<b>OSHA</b>	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
<b>NTP</b>	Known to be human carcinogen kaolin (Particulates) 1332-58-7
<b>ACGIH</b>	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Hazardous components

Component / CAS-No.	Weight percent
thiram (Dust) 137-26-8	50 %
carboxin 5234-68-4	30 %
titanium dioxide 13463-67-7	0.1 - < 1 %
quartz (SiO <sub>2</sub> ) 14808-60-7	0.1 - < 1 %



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### SECTION 4. FIRST AID MEASURES

#### First aid procedures

- Inhalation : Remove to fresh air.  
If not breathing, give artificial respiration.  
Obtain medical attention.
- Skin contact : Remove contaminated clothing and shoes.  
Wash off with warm water and soap.  
If symptoms persist, call a physician.  
Wash clothing before reuse.
- Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
Obtain medical attention.
- Ingestion : Do NOT induce vomiting.  
Rinse mouth with water.  
Obtain medical attention.

### SECTION 5. FIREFIGHTING MEASURES

#### Flammable properties

- Flash point : 234 °F (112 °C)
- 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  
(on small fires)  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical  
Water spray
- Unsuitable extinguishing media : Water spray jet
- Further information : Prevent fire extinguishing water from contaminating surface water or the ground water system.

#### Protective equipment and precautions for firefighters

- Special protective equipment for firefighters : Body covering protective clothing, full "turn-out" gear.  
Self-contained breathing apparatus (EN 133)



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### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Wear suitable protective equipment.  
Avoid contact with skin and eyes.
- Environmental precautions : Do not allow contact with soil, surface or ground water.  
Do not flush into surface water or sanitary sewer system.
- Methods for containment /  
Methods for cleaning up : Pick up and arrange disposal without creating dust.

### SECTION 7. HANDLING AND STORAGE

#### Handling

- Handling procedures : Use plant protection products safely. Always read the label and product information before use.  
Handle in accordance with good industrial hygiene and safety practice.  
Avoid contact with skin, eyes and clothing.  
Wear personal protective equipment.  
Use with adequate ventilation.  
Avoid dust formation.  
Keep away from sources of ignition - No smoking.  
May form explosive dust-air mixture.  
Take precautionary measures against static discharges.

#### Storage

- Requirements for storage areas and containers : Store in original container.  
Keep tightly closed in a dry, cool and well-ventilated place.
- Other data : Stable under recommended storage conditions.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Exposure Guidelines

#### Components with workplace control parameters

Components / CAS-No.	Value / Basis / Update	Control parameters	Further information
thiram (Dust) 137-26-8	TWA CA AB OEL 2007-01-01	1 mg/m <sup>3</sup>	
	TWA CA BC OEL 2010-09-01	1 mg/m <sup>3</sup>	
	TWAEV CA ON OEL 2005-12-17	1 mg/m <sup>3</sup>	



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	TWAEV CA QC OEL 2006-12-29	5 mg/m3	
titanium dioxide 13463-67-7	TWA CA AB OEL 2009-04-30	10 mg/m3	
	TWA CA BC OEL 2006-11-29	10 mg/m3	
	TWAEV CA ON OEL 2005-12-17	10 mg/m3	
	TWAEV CA QC OEL 2012-11-28	10 mg/m3	
quartz (SiO <sub>2</sub> ) 14808-60-7	TWA CA AB OEL 2007-01-01	0.1 mg/m3	
	TWA CA ON OEL 2010-11-05	0.1 mg/m3	
	TWA CA AB OEL 2009-04-30	0.025 mg/m3	
	TWAEV CA QC OEL 2012-11-28	0.1 mg/m3	
	TWA CA BC OEL 2012-04-20	0.025 mg/m3	

**Engineering measures**

**Personal protective equipment**



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Eye protection : Safety glasses with side-shields

Hand protection : Impervious gloves

Skin and body protection : impervious clothing

Respiratory protection : In the case of dust or aerosol formation use respirator with an approved filter.  
Respirator with a dust filter

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Appearance

Form : solid

Colour : off-white

Odour : slight  
musty

#### Safety data

Flash point : 234 °F (112 °C)

Ignition temperature : Remarks: not determined

Lower explosion limit : Note: no data available

Upper explosion limit : Note: no data available

Melting point/range : Note: no data available

Boiling point/boiling range : Note: not applicable

Vapour pressure : not applicable

Water solubility : Note: no data available

Partition coefficient: n-  
octanol/water : Note: no data available

Viscosity, kinematic : Note: not applicable

### SECTION 10. STABILITY AND REACTIVITY

Materials to avoid : Remarks: Oxidizing agents  
Strong acids and strong bases

Hazardous decomposition  
products : Note: Carbon oxides  
nitrogen oxides (NOx)

Hazardous reactions : Hazardous polymerisation does not occur.



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## SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	: LD50: 1,326 mg/kg Species: rat
Acute inhalation toxicity	: LC50: > 5.8 mg/l Species: rat
Acute dermal toxicity	: LD50: > 2,000 mg/kg Species: rabbit
Skin irritation	: Species: rabbit Result: No skin irritation
Eye irritation	: Species: rabbit Result: Severe irritation
Sensitisation	: Species: guinea pig Result: Did not cause sensitization on laboratory animals.
Repeated dose toxicity thiram (Dust)	: Species: rat Application Route: Oral Exposure time: (90 d) NOEL: 2.5 mg/kg  Species: rabbit Application Route: Dermal Exposure time: (21 d) NOEL: 300 mg/kg
carboxin	: Species: rat, male Application Route: Dermal Exposure time: (28 d) NOEL: 30 mg/kg  Species: rat, male Application Route: Oral Exposure time: (90 d) NOEL: 5.5 mg/kg
CMR effects thiram (Dust)	: Carcinogenicity: negative Mutagenicity: negative Reproductive toxicity: negative
carboxin	: Carcinogenicity: negative



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Mutagenicity: negative  
Teratogenicity: negative  
Reproductive toxicity: negative

titanium dioxide : Carcinogenicity: Not classifiable as a human carcinogen.  
Mutagenicity: Animal testing did not show any mutagenic effects.

Carcinogenicity: Group 2B: Possibly carcinogenic to humans

quartz (SiO<sub>2</sub>) : Carcinogenicity: Human carcinogen.  
Mutagenicity: Animal testing did not show any mutagenic effects.

## 12. ECOLOGICAL INFORMATION

Toxicity to fish  
thiram (Dust) : LC50: 0.046 mg/l  
Exposure time: 96 h

Species: Oncorhynchus mykiss (rainbow trout)  
static test

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

Species: Oncorhynchus mykiss (rainbow trout)  
flow-through test

titanium dioxide : LC0: 1,000 mg/l  
Exposure time: 48 h

Species: Leuciscus idus (Golden orfe)  
static test  
LC50: 240 - 370 mg/l  
Exposure time: 96 h

Species: Cyprinodon variegatus (sheepshead minnow)

Toxicity to daphnia and other aquatic invertebrates  
thiram (Dust) : EC50: 0.011 mg/l  
Exposure time: 48 h  
Species: Daphnia magna (Water flea)  
static test

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

Toxicity to algae  
thiram (Dust) : EC50: 0.065 mg/l  
Exposure time: 120 h  
Species: Pseudokirchneriella subcapitata (green algae)  
static test

carboxin : EC50: 0.48 mg/l  
Exposure time: 5 d





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Toxicity to fish (Chronic toxicity)  
carboxin : Species: Pseudokirchneriella subcapitata (green algae)  
static test

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

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)  
thiram (Dust) : 0.008 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)

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

Biodegradability  
thiram (Dust) : Result: Not readily biodegradable.

carboxin : Result: Not readily biodegradable.

### Further information on ecology

Results of PBT assessment  
thiram (Dust) : This substance is not considered to be persistent, bioaccumulating  
nor toxic (PBT).

carboxin : This substance is not considered to be persistent, bioaccumulating  
nor toxic (PBT).

Additional ecological  
information : There is no data available for this product.  
Avoid release to the environment.

## SECTION 13. DISPOSAL CONSIDERATIONS

Further information : In accordance with local and national regulations.

## SECTION 14. TRANSPORT INFORMATION

### TDG

UN number : 3077  
Description of the goods : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,  
N.O.S.  
(thiram, carboxin)  
Class : 9  
Packing group : III  
Labels : 9  
Environmentally hazardous : yes



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## IATA

UN number : 3077  
Description of the goods : Environmentally hazardous substance, solid, n.o.s.  
(thiram, carboxin)  
Class : 9  
Packing group : III  
Labels : 9  
Environmentally hazardous : yes

## IMDG

UN number : 3077  
Description of the goods : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,  
N.O.S.  
(thiram, carboxin)  
Class : 9  
Packing group : III  
EmS Number 1 : F-A  
EmS Number 2 : S-F  
Marine pollutant : yes  
thiramcarboxin  
Environmentally hazardous : yes  
thiram carboxin

## SECTION 15. REGULATORY INFORMATION

**WHMIS Classification** :

**NPRI Components** : naphthalene 91-20-3

**California Prop. 65 Components** : WARNING! This product contains a chemical known to the State of California to cause cancer.

kaolin (Particulates)	1332-58-7 kaolin (Particulates)
titanium dioxide	13463-67-7 titanium dioxide
quartz (SiO <sub>2</sub> )	14808-60-7 quartz (SiO <sub>2</sub> )
naphthalene	91-20-3 naphthalene (Vapour and gas)



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### SECTION 16. OTHER INFORMATION

#### Further information

#### 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.