



Material Safety Data Sheet

PRO-GRO®

Version: 1.4

Revision Date: 03/12/2010

Print Date: 10/06/2011

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

Emergency telephone: :
: 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

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

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

DANGER!

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

:



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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
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



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Carcinogenicity:

IARC

Group 1: Carcinogenic to humans

quartz (SiO₂) 14808-60-7

Carcinogenicity:

Group 2B: Possibly carcinogenic to humans

titanium dioxide 13463-67-7

ACGIH

Suspected human carcinogen: Human data are accepted as adequate in quality but are conflicting or insufficient to classify the agent as a confirmed human carcinogen; OR, the agent is carcinogenic in experimental animals at dose(s), by route(s) of exposure, at site(s), of histologic type(s), or by mechanism(s) considered relevant to worker exposure. The A2 is used primarily when there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals with relevance to humans.

quartz (SiO₂) 14808-60-7

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

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



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SECTION 4. FIRST AID MEASURES

First aid procedures

- Inhalation : Remove to fresh air.
Give artificial respiration if not breathing.
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. FIRE-FIGHTING 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



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Alcohol-resistant foam
(on small fires)
Carbon dioxide (CO₂)
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 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 : 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.



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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	<u>Further information</u>
thiram 137-26-8	TWA CA AB OEL 2007-01-01	1 mg/m ³	
	TWAEV CA ON OEL 2005-12-17	1 mg/m ³	
	TWAEV CA QC OEL 2006-12-29	5 mg/m ³	



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

Components with workplace control parameters

Components / CAS-No.	Value / Basis / Update	Control parameters	<u>Further information</u>
thiram	TWA	1 mg/m3	



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137-26-8	CA AB OEL		
	2007-01-01		
	TWAEV	1 mg/m3	
	CA ON OEL		
	2005-12-17		
	TWAEV	5 mg/m3	
	CA QC OEL		
	2006-12-29		

Engineering measures

Personal protective equipment

- 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



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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
Water solubility	: Note: no data available

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.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	: LD50: 1,326 mg/kg Species: rat
Acute inhalation toxicity	: LC50: > 5.8 mg/l Species: rat



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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.

12. ECOLOGICAL INFORMATION

Toxicity to fish thiram	: LC50: 0.046 mg/l Exposure time: 96 h Species: Oncorhynchus mykiss (rainbow trout) LC50: 0.0445 mg/l Exposure time: 96 h Species: Lepomis macrochirus (Bluegill sunfish)
carboxin	: LC50: 2.3 mg/l Exposure time: 96 h Species: Oncorhynchus mykiss (rainbow trout) LC50: 3.6 mg/l Exposure time: 96 h



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Species: Lepomis macrochirus (Bluegill sunfish)

Toxicity to daphnia and other aquatic invertebrates.

thiram : EC50: 0.011 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)

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

Further information on ecology

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

IATA



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UN-Number : 3077
Description of the goods : Environmentally hazardous substance, solid, n.o.s.
(Thiram, Carboxin)
Class : 9
Packing group : III

IMDG

UN-Number : 3077
Description of the goods : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(Thiram, Carboxin)
Class : 9
Packing group : III
EmS Letter 1 : F-A
EmS Letter 2 : S-F
Marine pollutant : yes
Thiram Carboxin

SECTION 15. REGULATORY INFORMATION

WHMIS Classification :

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 parle RPC.



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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

Other Emergency Phone Number

<u>Latin America:</u>	Brazil	+52 113 711 91 44
	All other countries	+44 (0)208 762 8322
<u>Mexico:</u>		+52 555 004 87 63

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.