



Material Safety Data Sheet
GAUCHO® CS FL FLOWABLE INSECTICIDE AND FUNGICIDE SEED TREATMENT

MSDS Number: 102000012837
 MSDS Version 1.0
 Revision Date: 01/11/2009

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name GAUCHO® CS FL FLOWABLE INSECTICIDE AND FUNGICIDE SEED TREATMENT
MSDS Number 102000012837
PCP Registration No. 27174

Bayer CropScience Inc
 #100 - 3131 - 114th Avenue SE
 Calgary, AB T2Z 3X2
 Canada

For MEDICAL, TRANSPORTATION or other EMERGENCY call: 1-800-334-7577 (24 hours/day)
 For Product Information call: 1-888-283-6847

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Imidacloprid	138261-41-3	21.04
Carboxin	5234-68-4	3.59
Thiram	137-26-8	7.19
Titanium dioxide	13463-67-7	17.00
Synthetic amorphous silica	112926-00-8	1.04

SECTION 3. HAZARDS IDENTIFICATION

NOTE: Please refer to Section 11 for detailed toxicological information.

Emergency Overview Caution! Harmful if swallowed, inhaled or absorbed through the skin. Avoid inhalation of vapour or mist. Avoid contact with skin, eyes and clothing.

Physical State opaque liquid

Appearance blue

Routes of Exposure Skin contact, Eye contact, Inhalation, Ingestion

Immediate Effects

Eye Avoid contact with eyes.

Skin Prolonged skin contact may cause skin irritation and/or dermatitis. Harmful if absorbed through skin. Avoid contact with skin and clothing.

Ingestion Use of alcoholic beverages may enhance toxic effects. Harmful if swallowed. Do not take internally.

Inhalation Avoid inhalation of vapour or mist. Harmful if inhaled.



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Chronic or Delayed Long-Term	This product or its components may have target organ effects. This product or its components may have long term (chronic) health effects.
Medical Conditions Aggravated by Exposure	Individuals with allergic history or pre-existing dermatitis should use extra care in handling this product.
Potential Environmental Effect	Highly toxic to birds. Highly toxic to aquatic invertebrates.

SECTION 4. FIRST AID MEASURES

General	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
Eye	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.
Skin	Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.
Inhalation	Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.
Notes to Physician	
Signs and Symptoms	Ingestion may provoke the following symptoms: Nausea Vomiting breathing difficulties More severe effects if alcohol is consumed.
Treatment	There is no specific antidote. Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.

SECTION 5. FIRE FIGHTING MEASURES

Flash point	no data available
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Autoignition Temperature	no data available
lower flammability limit	no data available
Upper Flammability Limit	no data available
Explosiveness	no data available
Fire and Explosion Hazards	Heating or fire can release toxic gas. Keep away from open flames, hot surfaces and sources of ignition.
Suitable Extinguishing Media	Foam, Carbon dioxide (CO2), Dry chemical, Water spray
Fire Fighting Instructions	Keep out of smoke. Fight fire from upwind position. Cool containers / tanks with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.
Methods for Cleaning Up	Take up with absorbent material (e.g. sand, diatomaceous earth or a proprietary absorbent material). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.
Additional Advice	Use personal protective equipment. Do not allow product to enter streams, sewers or other waterways.

SECTION 7. HANDLING AND STORAGE

Handling Procedures	Handle and open container in a manner as to prevent spillage.
Storing Procedures	Do not freeze. Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.
Work/Hygienic	Wash hands thoroughly with soap and water after handling and before eating,



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		Form of exposure	Total	
		CAD BC OEL TWA		1.5 mg/m3
		Form of exposure	Respirable.	
		CAD ON OEL TWA		10 mg/m3
		OEL (QUE) TWA		10 mg/m3
		Form of exposure	Total dust.	
1,2-Propanediol	57-55-6	CAD ON OEL TWA		10 mg/m3
		Form of exposure	Aerosol.	
		CAD ON OEL TWA	50 ppm	155 mg/m3
		Form of exposure	Total vapor and aerosol.	

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	blue
Physical State	opaque liquid
pH	7.0 - 8.5 (undiluted)
Vapor Pressure	no data available
Vapor Density (Air = 1)	no data available
Specific Gravity	1.33 - 1.39 at 20 °C
Evaporation rate	no data available
Boiling Point	no data available
Melting / Freezing Point	no data available
Minimum Ignition Energy	no data available
Partition coefficient (n-octanol/water)	no data available
Viscosity	80 - 200 mPa.s

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended storage conditions.
Conditions to Avoid	Extremes of temperature and direct sunlight.
Incompatibility	Oxidizing agents Acids



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Hazardous Decomposition Products Thermal decomposition can lead to release of:
 Carbon oxides
 Sulphur oxides
 nitrogen oxides (NOx)
 hydrogen chloride (HCl)
 Hydrogen cyanide (hydrocyanic acid)

SECTION 11. TOXICOLOGICAL INFORMATION

Only acute toxicity studies have been performed on this product as formulated. The non-acute information pertains to the technical-grade active ingredients, imidacloprid, thiram and carboxin.

Acute Oral Toxicity male/female combined rat: LD50: 3,067 mg/kg

Acute Dermal Toxicity rat: LD50: > 5,000 mg/kg

Acute Inhalation Toxicity rat: LC50: > 2.5 mg/l
 Exposure time: 4 h
 Determined in the form of liquid aerosol.

rat: LC50: > 10.0 mg/l
 Exposure time: 1 h
 Determined in the form of liquid aerosol.
 Extrapolated from the 4 hr LC50.

Skin Irritation rabbit: Slight irritation.

Eye Irritation rabbit: Minimally irritating.

Sensitization guinea pig: Non-sensitizing.

Chronic Toxicity Imidacloprid caused thyroid and/or liver effects in chronic dietary studies in rats and dogs.

Carboxin caused kidney and/or liver effects in chronic dietary studies in rats and dogs.

Thiram targeted the liver, blood and urinary system in chronic toxicity studies in laboratory animals.

Assessment Carcinogenicity

Imidacloprid was not carcinogenic in studies in rats and mice.

Carboxin did not demonstrate any biologically significant evidence of carcinogenic potential in rats and mice. EPA has classified carboxin as "not likely to be carcinogenic to humans."

Thiram did not demonstrate any biologically significant evidence of carcinogenic potential in rats and mice. EPA has classified thiram as "not likely to be carcinogenic to humans."



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ACGIH

Thiram	137-26-8	Group A4
Titanium dioxide	13463-67-7	Group A4

NTP

None.

IARC

Thiram	137-26-8	Overall evaluation: 3
Titanium dioxide	13463-67-7	Overall evaluation: 3

OSHA

None.

Reproductive & Developmental Toxicity

REPRODUCTION:

Imidacloprid was not a reproductive toxicant in a multi-generation study in rats.

Carboxin was not a primary reproductive toxicant in multi-generation studies in rats. Reproductive effects were observed only at doses producing systemic toxicity.

Thiram was not a reproductive toxicant in multi-generation reproduction studies in rats.

DEVELOPMENTAL TOXICITY:

Imidacloprid is not considered a primary developmental toxicant in rats and rabbits. Developmental effects were observed at doses that caused maternal toxicity.

Carboxin is not considered a primary developmental toxicant in rats and rabbits. Developmental effects were observed at doses that caused maternal toxicity.

Thiram is a developmental toxicant.

Neurotoxicity

Imidacloprid showed slight behavioral and activity changes only at the highest dose tested in neurotoxicity studies in rats. There were no correlating morphological changes observed in the neural tissues.

Carboxin neurotoxicity studies are not required at this time.

Thiram caused neurotoxic effects (e.g. lethargy, reduced activity) in laboratory animals.

Mutagenicity

Imidacloprid was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

Carboxin demonstrated evidence of clastogenic potential in genotoxicity studies.

Thiram was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.



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SECTION 12. ECOLOGICAL INFORMATION

Environmental Precautions Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Exposed treated seed may be hazardous to birds. Apply this product as specified on the label.

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance Follow container label instructions for disposal of wastes generated during use in compliance with the product label.

Container Disposal Do not re-use empty containers. Follow advice on product label and/or leaflet.

SECTION 14. TRANSPORT INFORMATION

TDG (Canada):
 Not regulated for road or rail.

SECTION 15. REGULATORY INFORMATION

PCP Registration No. 27174

US Federal Regulations

TSCA list

Thiram 137-26-8
 Titanium dioxide 13463-67-7

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

None.

SARA Title III - Section 302 - Notification and Information

None.

SARA Title III - Section 313 - Toxic Chemical Release Reporting

Carboxin 5234-68-4 1.0%
 Thiram 137-26-8 1.0%

US States Regulatory Reporting

CA Prop65

This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

US State Right-To-Know Ingredients

Carboxin 5234-68-4 NJ



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Titanium dioxide	13463-67-7	IL, MN, RI
Synthetic amorphous silica	112926-00-8	CA, IL, MN, RI

Canadian Regulations

Canadian Domestic Substance List

Thiram	137-26-8
Titanium dioxide	13463-67-7
Synthetic amorphous silica	112926-00-8

Environmental

CERCLA

Thiram	137-26-8	10 lbs
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Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.

International Regulations

European Inventory of Existing Commercial Substances (EINECS)

Carboxin	5234-68-4
Thiram	137-26-8
Titanium dioxide	13463-67-7

SECTION 16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

Health - 1 Flammability - 1 Reactivity - 1 Others - none

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason to Revise: New Material Safety Data Sheet.

Prepared by the HSE Department of Bayer CropScience Inc. (306)-721-0310.

Revision Date: 01/11/2009

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