

Section 1: IDENTIFICATION

Product Name: Vitaflo SP Fungicide
Pest Control Product Number: 30381
Product Use: Seed Protectant.
Restrictions on Use: Not available.
Manufacturer/Supplier: Interprovincial Cooperative LTD. (IPCO)
945 Marion Street
Winnipeg, MB R2J 0K7
Phone Number: 204.233.3461
Emergency Phone: 204.233.3461
CANUTEC: 1-888-CAN-UTEC (226-8832), 613-996-6666 or
*666 on a cellular phone.
Date of Preparation of SDS: April 9, 2020

Section 2: HAZARD(S) IDENTIFICATION**GHS INFORMATION**

Classification: Acute Toxicity - Oral, Category 4
Skin Irritation, Category 2
Eye Irritation, Category 2A
Sensitization - Skin, Category 1
Specific Target Organ Toxicity (Single Exposure), Category 1
Specific Target Organ Toxicity (Single Exposure), Category 3 - Respiratory
Irritation
Specific Target Organ Toxicity (Repeated Exposure), Category 2

LABEL ELEMENTS**Hazard****Pictogram(s):****Signal Word:** Danger

Hazard Statements: Harmful if swallowed.
Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.
Causes damage to organs.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements

Prevention: Do not breathe mist, vapours, or spray.
Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.



Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, protective clothing and eye protection.

Response: IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. IF ON SKIN: Wash with plenty of water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Call a POISON CENTER or doctor. Call a POISON CENTER or doctor if you feel unwell. Rinse mouth. If skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing and wash it before reuse.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal: Dispose of contents and container in accordance with applicable regional, national and local laws and regulations.

Hazards Not Otherwise Classified: Not applicable.

Ingredients with Unknown Toxicity: None.

This material is considered hazardous by the OSHA Hazard Communication Standard, (29 CFR 1910.1200).

This material is considered hazardous by the Hazardous Products Regulations.

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Table with 4 columns: Hazardous Ingredient(s), Common name / Synonyms, CAS No., % wt./wt. Rows include 1,2-Ethanediol, Carboxin, Thioperoxydicarbonic diamide, and N,N,N',N'-tetramethyl-((H2N)C(S))2S2.

Section 4: FIRST-AID MEASURES

Inhalation: If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor if you feel unwell.

Acute and delayed symptoms and effects: May cause respiratory irritation. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Inhalation of Ethylene glycol may cause nausea, vomiting, dizziness and drowsiness. Pulmonary edema and central nervous system depression may also develop. When heated or misted, has produced rapid, involuntary eye movement and coma.



Eye Contact: If in eyes: Rinse cautiously with water for at least 20minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Acute and delayed symptoms and effects: Causes serious eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Skin Contact: If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.

Acute and delayed symptoms and effects: May cause an allergic skin reaction. Causes skin irritation. Signs/symptoms may include localized redness, swelling, and itching.

Ingestion: If swallowed: Rinse mouth. Call a poison center or doctor if you feel unwell. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Acute and delayed symptoms and effects: Harmful if swallowed. May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea. Initial symptoms of Ethylene glycol ingestion in massive dosage parallel alcohol intoxication, progressing to CNS depression, vomiting, headache, rapid respiratory and heart rate, lowered blood pressure, stupor, collapse, and unconsciousness with convulsions. Death from respiratory arrest or cardiovascular collapse may follow.

General Advice: In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

Note to Physicians: Symptoms may not appear immediately. Urinalysis of persons exposed to Ethylene glycol may show low specific gravity, proteinuria, pyuria, cylindruria, hematuria, calcium oxalate, and hippuric acid crystals. Ethanol can be used in antidotal treatment but monitor blood glucose when administering ethanol because it can cause hypoglycemia. Consider infusion of a diuretic such as mannitol to help prevent or control brain edema and hemodialysis to remove ethylene glycol from circulation.

Section 5: FIRE-FIGHTING MEASURES

FLAMMABILITY AND EXPLOSION INFORMATION

Not flammable or combustible by OSHA/WHMIS criteria.

Sensitivity to Mechanical Impact: This material is not sensitive to mechanical impact.

Sensitivity to Static Discharge: This material is not sensitive to static discharge.

MEANS OF EXTINCTION

Suitable Extinguishing Media: Small Fire: Dry chemical, CO2, water spray or regular foam.

Large Fire: Water spray, fog or regular foam. Move containers from fire area if you can do it without risk.



Unsuitable Extinguishing Media:	Not available.
Products of Combustion:	Oxides of carbon. Oxides of sulphur. Oxides of nitrogen. Nitrogen.
Protection of Firefighters:	Fire may produce irritating, corrosive and/or toxic gases. Runoff from fire control or dilution water may cause pollution. Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.

Section 6: ACCIDENTAL RELEASE MEASURES

Emergency Procedures:	Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering.
Personal Precautions:	Do not touch or walk through spilled material. Use personal protection recommended in Section 8.
Environmental Precautions:	Keep out of drains, sewers, ditches, and waterways.
Methods for Containment:	Stop leak if without risk. Do not flush to sewer or allow to enter waterways.
Methods for Clean-Up:	Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
Other Information:	See Section 13 for disposal considerations.

Section 7: HANDLING AND STORAGE**Handling:**

Do not swallow. Do not breathe mist, vapours, or spray. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. See Section 8 for information on Personal Protective Equipment.

Storage:

Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store away from incompatible materials. See Section 10 for information on Incompatible Materials. Keep out of the reach of children.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**Exposure Guidelines****Component**

Ethylene glycol [CAS No. 107-21-1]

ACGIH: 10 mg/m³ (STEL); A4; Inhalable particulate matter; Aerosol only (2016)
25 ppm (TWA); 50 ppm (STEL); A4; Vapor fraction (2016)

OSHA: 50 ppm (C) [Vacated];

Carboxin [CAS No. 5234-68-4]

ACGIH: No TLV established.

OSHA: No PEL established.

Thiram [CAS No. 137-26-8]

ACGIH: 0.05 mg/m³ (TWA); DSEN; A4; Inhalable fraction and vapor (2007)**OSHA:** 5 mg/m³ (TWA);**PEL:** Permissible Exposure Limit**TLV:** Threshold Limit Value**TWA:** Time-Weighted Average**STEL:** Short-Term Exposure Limit**C:** Ceiling**Engineering Controls:**

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapour, gas, etc.) below recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT (PPE)**Eye/Face Protection:**

Wear chemical safety goggles. Ensure that eyewash stations are close to the workstation location. Use equipment for eye protection that meets the standards referenced by CSA Standard CAN/CSA-Z94.3-92 and OSHA regulations in 29 CFR 1910.133 for Personal Protective Equipment.

Hand Protection:

Wear protective gloves. Consult manufacturer specifications for further information.

Skin and Body Protection:

Wear protective clothing.

Respiratory Protection:

If engineering controls and ventilation are not sufficient to control exposure to below the allowable limits then an appropriate NIOSH/MSHA approved air-purifying respirator that meets the requirements of CSA Standard CAN/CSA-Z94.4-11, or self-contained breathing apparatus must be used. Supplied air breathing apparatus must be used when oxygen concentrations are low or if airborne concentrations exceed the limits of the air-purifying respirators.

General Hygiene Considerations:

Handle according to established industrial hygiene and safety practices. Consult a competent industrial hygienist to determine hazard potential and/or the PPE manufacturers to ensure adequate protection.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Pink liquid.
Colour:	Pink.
Odour:	Sweet.
Odour Threshold:	Not available.



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Physical State:	Liquid.
pH:	7.8
Melting Point / Freezing Point:	-20 °C (-4 °F)
Initial Boiling Point:	Not available.
Boiling Range:	Not available.
Flash Point:	Not available.
Evaporation Rate:	Not available.
Flammability (solid, gas):	Not applicable.
Lower Flammability Limit:	Not available.
Upper Flammability Limit:	Not available.
Vapor Pressure:	Not available.
Vapor Density:	Not available.
Relative Density:	1.117 (Water = 1) at 20 °C (68 °F)
Solubilities:	Miscible in water.
Partition Coefficient: n-Octanol/Water:	Not available.
Auto-ignition Temperature:	Not available.
Decomposition Temperature:	Not available.
Viscosity:	Not available.
Percent Volatile, wt. %:	Not available.
VOC content, wt. %:	Not available.
Density:	Not available.
Coefficient of Water/Oil Distribution:	Not available.

Section 10: STABILITY AND REACTIVITY

Reactivity:	Contact with incompatible materials. Exposure to heat.
Chemical Stability:	Stable under normal storage conditions.
Possibility of Hazardous Reactions:	Ethylene glycol reacts violently with chlorosulfonic acid, oleum, sulfuric acid, perchloric acid. Causes ignition at room temperature with chromium trioxide, potassium permanganate and sodium peroxide.
Conditions to Avoid:	Contact with incompatible materials. Exposure to heat.
Incompatible Materials:	Acids. Bases. Oxidizers.
Hazardous Decomposition Products:	Not available.

Section 11: TOXICOLOGICAL INFORMATION

EFFECTS OF ACUTE EXPOSURE

Product Toxicity

Oral: 1484 mg/kg (rat)

Dermal: Not available.

Inhalation: Not available.

Component Toxicity

Component	CAS No.	LD ₅₀ oral	LD ₅₀ dermal	LC ₅₀
Ethylene glycol	107-21-1	4700 mg/kg (rat)	9.53 mL/kg (rabbit)	Not available.
Carboxin	5234-68-4	430 mg/kg (rat)	1050 mg/kg (rat)	> 20000 mg/m ³ (rat); 1H
Thiram	137-26-8	560 mg/kg (rat)	Not available.	500 mg/m ³ (rat); 4H

Likely Routes of Exposure: Eye contact. Skin contact. Inhalation. Ingestion. Skin absorption.

Target Organs: Skin. Eyes. Gastrointestinal tract. Respiratory system. Lungs. Central nervous system.

Symptoms (including delayed and immediate effects)

Inhalation: May cause respiratory irritation. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Inhalation of Ethylene glycol may cause nausea, vomiting, dizziness and drowsiness. Pulmonary edema and central nervous system depression may also develop. When heated or misted, has produced rapid, involuntary eye movement and coma.

Eye: Causes serious eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Skin: May cause an allergic skin reaction. Causes skin irritation. Signs/symptoms may include localized redness, swelling, and itching.

Ingestion: Harmful if swallowed. May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea. Initial symptoms of Ethylene glycol ingestion in massive dosage parallel alcohol intoxication, progressing to CNS depression, vomiting, headache, rapid respiratory and heart rate, lowered blood pressure, stupor, collapse, and unconsciousness with convulsions. Death from respiratory arrest or cardiovascular collapse may follow.

Skin Sensitization: Hazardous by OSHA/WHMIS criteria. May cause sensitisation through skin contact.

Respiratory Sensitization: Not available.

Medical Conditions Aggravated By Exposure: Not available.



EFFECTS OF CHRONIC EXPOSURE (from short and long-term exposure)

Target Organs: Skin. Eyes. Gastrointestinal tract. Respiratory system. Lungs. Kidneys. Central nervous system.

Chronic Effects: Prolonged or repeated contact may dry skin and cause irritation. Repeated small exposures to Ethylene glycol by any route can cause severe kidney problems. Brain damage may also occur. Skin allergy can develop.

Carcinogenicity: Product is not classified as a carcinogen. See Component Carcinogenicity table below for information on individual components.

Component Carcinogenicity

Component	ACGIH	IARC	NTP	OSHA	Prop 65
Ethylene glycol	A4	Not listed.	Not listed.	Not listed.	Not listed.
Thiram	A4	Group 3	Not listed.	Not listed.	Not listed.

Mutagenicity: Not available.

Reproductive Effects: Not available.

Developmental Effects

Teratogenicity: Repeated exposures to Ethylene glycol may damage the developing fetus.

Embryotoxicity: Repeated exposures to Ethylene glycol may damage the developing fetus.

Toxicologically Synergistic Materials: Not available.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: Not available.

Persistence / Degradability: Not available.

Bioaccumulation / Accumulation: Not available.

Mobility in Environment: Not available.

Other Adverse Effects: Not available.

Section 13: DISPOSAL CONSIDERATIONS

Disposal Instructions: Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

Section 14: TRANSPORT INFORMATION

U.S. Department of Transportation (DOT)

Proper Shipping Name: Not regulated.

Class: Not applicable.

UN Number: Not applicable.

Packing Group: Not applicable.

Label Code: Not applicable.



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Canada Transportation of Dangerous Goods (TDG)

Proper Shipping Name: Not regulated.

Class: Not applicable.

UN Number: Not applicable.

Packing Group: Not applicable.

Label Code: Not applicable.

Section 15: REGULATORY INFORMATION

Federal Regulations

United States

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SARA Title III

Component	Section 302 (EHS) TPQ (lbs.)	Section 304 EHS RQ (lbs.)	CERCLA RQ (lbs.)	Section 313	RCRA CODE	CAA 112(r) TQ (lbs.)
Ethylene glycol	Not listed.	Not listed.	5000	313	Not listed.	Not listed.
Carboxin	Not listed.	Not listed.	Not listed.	313	Not listed.	Not listed.
Thiram	Not listed.	Not listed.	10	313	U244	Not listed.

State Regulations

Massachusetts

US Massachusetts Commonwealth's Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000)

Component	CAS No.	RTK List
Ethylene glycol	107-21-1	Listed.
Thiram	137-26-8	Listed.

New Jersey

US New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5)

Component	CAS No.	RTK List
Ethylene glycol	107-21-1	Listed.
Carboxin	5234-68-4	Listed.
Thiram	137-26-8	SHHS

Note: SHHS = Special Health Hazard Substance

Pennsylvania

US Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)

Component	CAS No.	RTK List
Ethylene glycol	107-21-1	E
Thiram	137-26-8	E

Note: E = Environmental Hazard



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California
California Prop 65:



WARNING This product can expose you to Ethylene glycol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Section 16: OTHER INFORMATION

Disclaimer:

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for their own particular use.

Date of Preparation of SDS: April 9, 2020
Version: 1.0
GHS SDS Prepared by: Deerfoot Consulting Inc.
Phone: (403) 720-3700