



Safety Data Sheet

Preparation Date 31-May-2022

Revision date 31-May-2022

Revision Number: 1

1. Identification of the Substance/Preparation and of the Company/Undertaking

Identification of the product

Product Description VitaFlo 280 Fungicide

Other means of identification

Internal SDS code 12-11423

Registration number(s) PMRA Reg # 11423

Recommended use of the chemical and restrictions on use

Recommended use Plant protection agent. Fungicide.

Uses advised against Activities contrary to label recommendation

Details of the Supplier of the Safety Data Sheet

Supplier Address

UPL AgroSolutions Canada Inc.
c/o UPL NA Inc
630 Freedom Business Center, Suite 402,
King of Prussia, PA 19406

Emergency telephone number

Company Phone Number 1-800-438-6071

Emergency telephone number Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887
Medical: Rocky Mountain Poison and Drug Safety (866) 673-6671 (24hrs)

2. Hazards Identification

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| | |
|--|-------------|
| Skin Corrosion/Irritation | Category 2 |
| Serious eye damage/eye irritation | Category 2B |
| Specific target organ toxicity (repeated exposure) | Category 2 |

Label elements

EMERGENCY OVERVIEW

WARNING

Hazard Statements

CAUSES SKIN IRRITATION

May cause damage to organs through prolonged or repeated exposure

CAUSES EYE IRRITATION



| | | |
|-------------------------|------------------------------|--------------------------|
| Appearance clear | Physical state Liquid | Odor Slight sweet |
|-------------------------|------------------------------|--------------------------|

Precautionary Statements - Prevention

Do not breathe dust/fume/gas/mist/vapors/spray
 Wash face, hands and any exposed skin thoroughly after handling
 Avoid release to the environment
 Do not handle until all safety precautions have been read and understood
 Obtain special instructions before use
 Wear protective gloves/protective clothing/eye protection/face protection

IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 Immediately call a POISON CENTER or doctor/physician
 IF ON SKIN: Gently wash with plenty of soap and water
 If skin irritation occurs: Get medical advice/attention

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container in accordance with local/national regulations

Hazards Not Otherwise Classified (HNOC)**OTHER INFORMATION**

- Toxic to birds.
- and small wild mammals.

3. Composition/information on Ingredients

| Chemical name | CAS No | Weight-% |
|-----------------|-----------|----------|
| Carboxin | 5234-68-4 | 15.6 |
| Ethylene glycol | 107-21-1 | 10-20 |
| Thiram | 137-26-8 | 13.3 |

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First aid measures

FIRST AID MEASURES

| | |
|---------------------|---|
| Eye contact | Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. |
| Skin contact | Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Call a poison control center or doctor for treatment advice. |
| Inhalation | Move person 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 poison control center or doctor for further treatment advice. |
| Ingestion | Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Do not induce vomiting without medical advice. |

Most Important Symptoms and Effects, Both Acute and Delayed

Most Important Symptoms and Effects May cause damage to organs through prolonged or repeated exposure.

Indication of Any Immediate Medical Attention and Special Treatment Needed

Notes to physician Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media

Carbon dioxide (CO₂). Dry chemical. Water spray.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

No information available.

Hazardous combustion products Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Explosion data

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions

Avoid contact with skin and eyes. Use personal protective equipment. Wash thoroughly after handling. Do not breathe vapours or spray mist.

Environmental Precautions

Environmental precautions

Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits. Do not flush into surface water or sanitary sewer system.

Methods and material for containment and cleaning up

Methods for Clean-Up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal.

7. Handling and Storage

Precautions for safe handling

Handling

Wear personal protective equipment. Avoid contact with skin and eyes. Do not breathe vapours or spray mist. Provide adequate ventilation.

Conditions for safe storage, including any incompatibilities

Storage

Keep only in original container. Keep tightly closed in a dry and cool place.

incompatible materials

Strong oxidizing agents. Strong acids. Strong bases.

8. Exposure Controls/Personal Protection

Exposure guidelines

| Chemical name | ACGIH TLV | OSHA PEL |
|-----------------|--|---|
| Ethylene glycol | STEL: 50 ppm vapor fraction STEL: 10 mg/m ³ inhalable particulate matter, aerosol only | (vacated) Ceiling: 50 ppm (vacated) Ceiling: 125 mg/m ³ |

| | | |
|--------|--|--|
| | TWA: 25 ppm vapor fraction | |
| Thiram | TWA: 0.05 mg/m ³ inhalable fraction and vapor | TWA: 5 mg/m ³ (vacated) TWA: 5 mg/m ³ |

Engineering controls Investigate engineering techniques to reduce exposures. Local mechanical exhaust ventilation is preferred. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

Personal protective equipment

Eye/Face Protection

Where there is potential for eye contact have eye flushing equipment available. Use eye protection to avoid eye contact. Safety glasses with side-shields. If splashes are likely to occur, wear: Face-shield.

Skin protection

Long sleeved clothing. Chemical resistant apron. Rubber gloves. Neoprene gloves.

Respiratory protection

Where airborne exposure is likely, use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. If exposures cannot be kept at a minimum with engineering controls, consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure, use an approved full face positive-pressure, self-contained breathing apparatus. Respiratory protection programs must comply with 29 CFR 1910.134.

General hygiene considerations

Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Wear suitable gloves and eye/face protection. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

| | | |
|--|--|---|
| <p>Appearance clear Physical state Liquid Odor Slight sweet color Red</p> | <p>Property <u>VALUES</u> pH 7.52 Melting point/freezing point Boiling Point/Range Flash Point Evaporation Rate Flammability (solid, gas) Specific gravity 1.107 Bulk density Water solubility None known None known None known None known None known</p> | <p>Remarks/ Method (1% solution) None known None known None known None known None known None known None known None known None known dispersible Solubility in Other Solvents No information available Partition coefficient: n-octanol/water Autoignition temperature Decomposition temperature Viscosity 98.9 cP @ 20C</p> |
|--|--|---|

9.2 OTHER INFORMATION

10. Stability and Reactivity

Reactivity

no data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

Strong oxidizing agents. Strong acids. Strong bases.

Hazardous decomposition products

Carbon oxides.

11. Toxicological Information

Information on Likely Routes of Exposure

| | |
|----------------------------|---|
| Product information | VITAFLO 280 Acute oral LD50 (rat) >500 - 5,000 mg/kg Acute dermal LD50 (rat) >2000 mg/kg Acute inhalation LC50 (rat) 4 hr >3.06 mg/l |
| Inhalation | May be harmful if inhaled. |
| Eye contact | CAUSES EYE IRRITATION. |
| Skin contact | Prolonged skin contact may cause skin irritation. |
| Ingestion | MAY BE HARMFUL IF SWALLOWED. |

Information on Toxicological Effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.
Mutagenic effects no data available.
Carcinogenicity The information below indicates whether any agency has listed any ingredient as a carcinogen.

| Chemical name | ACGIH | IARC | NTP | OSHA |
|--------------------|-------|---------|-----|------|
| Thiram 137-26-8 | - | Group 3 | | - |

Reproductive effects Not Available.
STOT - Single Exposure no data available.
STOT - Repeated Exposure no data available.
Aspiration hazard No information available.

Numerical Measures of Toxicity - See above

12. Ecological Information

ecotoxicity

Thiram:
FISH LC50 = 0.046 mg/l

DAPHNIA EC50 = 0.011 mg/L 48 hr
 OTHER AQUATIC ORGANISMS EC50 = > 0.14mg/L
 Carboxin
 FISH LC50 = 2.3 mg/L 96 hr
 DAPHNIA EC50 = >57 mg/L 48 hr
 OTHER AQUATIC ORGANISMS EC50 = 0.48 mg/L 120 hr

Persistence/Degradability

no data available.

Bioaccumulation/ Accumulation

Bioaccumulative potential.

| Chemical name | Log Pow |
|-----------------------------|-------------|
| Carboxin 5234-68-4 | 2.17 - 2.19 |
| Ethylene glycol 107-21-1 | -1.93 |
| Thiram 137-26-8 | 1.73 |

Other Adverse Effects

no data available

13. Disposal Considerations

Waste Treatment Methods**Waste Disposal Method**

Pesticide wastes can be hazardous. Improper disposal of excess pesticide or rinsate is a violation of Federal law. If the wastes cannot be disposed of by use or according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Contaminated packaging

Refer to product label.

14. Transport Information

DOT

When shipped domestically by highway in non-bulk containers this product can be shipped as not regulated.

When shipped in bulk, by vessel, or internationally use the IMDG shipping description:

TDG

When shipped in Canada domestic highway non-bulk this product can be shipped as Not regulated as per TDG 1.45.1

In bulk - use IMDG description

IATA

| | |
|-----------------------------|---|
| UN/ID no | UN3082 |
| Proper shipping name | Environmentally hazardous substances, liquid, n.o.s (Carboxin) (Thiram) |
| Hazard class | 9 |
| Packing group | PG III |
| Description | Marine pollutant |

IMDG

| | |
|-----------------------------|---|
| UN/ID no | UN3082 |
| Proper shipping name | Environmentally hazardous substances, liquid, n.o.s (Carboxin) (Thiram) |
| Subsidiary class | 9 |
| Packing group | PG III |

Environmental hazards Marine pollutant

15. Regulatory Information

This chemical/product is a pesticide product registered by the PMRA and is subject to specific label requirements under these regulations. The requirements may differ classification and hazard information required for safety data sheets and for labels of non-pesticide products. The following is information as required on the registered product label.

signal word CAUTION WARNING

Keep out of Reach of Children. Skin and Eye Irritant. Toxic to birds. Toxic to small wild mammals.

International Inventories

| | |
|---------------------------|-------------|
| USINV | Not present |
| DSL/NDSL | Not present |
| EINECS/ ELINCS | Not Present |
| ENCS | Not Present |
| China | Not Present |
| KECL | Not Present |
| PICCS | Not Present |
| AICS | Not Present |
| TSCA | Not Present |

- **TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
- ENCS** - Japan Existing and New Chemical Substances
- IECSC** - China Inventory of Existing Chemical Substances
- KECL** - Korean Existing and Evaluated Chemical Substances
- PICCS** - Philippines Inventory of Chemicals and Chemical Substances
- AICS** - Australian Inventory of Chemical Substances

Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

CERCLA

| Chemical name | RQ | CERCLA EHS RQs | RQ |
|-----------------------------|---------|----------------|--|
| Ethylene glycol 107-21-1 | 5000 lb | | RQ 5000 lb final RQ RQ 2270 kg final RQ |
| Thiram 137-26-8 | 10 lb | | RQ 10 lb final RQ RQ 4.54 kg final RQ |

CERCLA

| Component | RQ |
|---------------------------------------|---------|
| Ethylene glycol 107-21-1 (10-20) | 5000 lb |
| Thiram 137-26-8 (13.3) | 10 lb |

RCRA

| Component | RCRA - D Series Wastes | RCRA - P Series Wastes | RCRA - U Series Wastes |
|-----------|------------------------|------------------------|------------------------|
| | | | |

| | | | |
|-----------------------------|--|--|------|
| Thiram 137-26-8 (13.3) | | | U244 |
|-----------------------------|--|--|------|

Pesticide Information

| Component | FIFRA - Restricted Use | FIFRA - Pesticide Product Other Ingredients | FIFRA - Listing of Pesticide Chemicals | California Pesticides - Restricted Materials |
|---------------------------------------|------------------------|---|--|--|
| Carboxin 5234-68-4 (15.6) | | | X | |
| Ethylene glycol 107-21-1 (10-20) | | | X | |
| Thiram 137-26-8 (13.3) | | | X | |

State Regulations

| Component | California Prop. 65 |
|---------------------------------------|---------------------|
| Ethylene glycol 107-21-1 (10-20) | Developmental |

Prop 65 Pictogram



**Prop 65 Warning Statement
California Proposition 65**

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

State Right-to-Know

| Chemical name | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|----------------------------|---------------|------------|--------------|----------|--------------|
| Carboxin - 5234-68-4 | | X | | | |
| Ethylene glycol - 107-21-1 | X | X | X | X | |
| Thiram - 137-26-8 | X | X | X | | |

International regulations

U.S. EPA Label information

EPA Pesticide registration number PMRA Reg # 11423

16. Other Information

NFPA **HEALTH 1** **flammability 0** **Instability 0** **Physical hazard -**

Preparation Date 31-May-2022

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Revision Summary

Add to system

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End of SDS