



Safety Data Sheet

Report Date 27-Jun-22

Page 1 of 5

1. Identification

Product Name : FIRST DEFENSE Cereals ZX
Synonyms : None
Product Use : Fungicide Seed Treatment
Manufacturer/Supplier : Helena Agri-Enterprises, LLC
Address : 225 Schilling Blvd. Collierville, TN 38017
General Information : 901-761-0050
Transportation Emergency Number : CHEMTREC:800-424-9300

2. Hazard Identification



Signal Word : Warning
Skin Irritation : Not classified as hazardous under 29 CFR 1910.1200 (2012)
Eye Irritation : Not classified as hazardous under 29 CFR 1910.1200 (2012)
Acute Toxicity Oral : LD50 >5,000 mg/kg - Not classified as hazardous under 29 CFR 1910.1200
Acute Toxicity Dermal : LD50 >5,000 mg/kg - Not classified as hazardous under 29 CFR 1910.1200
Hazard Categories : Inhalation Toxicity-4; Reproductive Toxicity-2
Hazard Statement : Harmful if inhaled
Suspected of damaging fertility or the unborn child

3. Composition / Information on Ingredients

Component	CAS Number	Weight %
Difenoconazole	119446-68-3	3.37-3.73
Mefenoxam	70630-17-0	1.41-1.55
	69516-34-3	
Thiabendazole	148-79-8	1.80-1.98
Tebuconazole	107534-96-3	0.53-0.65
Red Colorant	7023-61-2	19.4-20.60
Ethylene Glycol	107-21-1	4.75-5.25
Other ingredients	Proprietary	>65.0



Safety Data Sheet

Report Date 27-Jun-22

Page 2 of 5

4. First Aid Measures

- Eye** : Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
- Skin** : Wash skin with soap and water.
- Inhalation** : Remove to fresh air. If symptoms persist, call a physician. If breathing has stopped, give artificial respiration. Get medical attention immediately.
- Ingestion** : Do NOT induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. Get medical attention.
- Indication of Immediate Medical Attention and Special Treatment Needed** : May cause coughing and/or wheezing or difficulty in breathing. Treat symptomatically.

5. Fire Fighting Measures

- Extinguishing Media** : Use extinguishing media suitable for underlying cause of fire. Use of water spray may be inefficient.
- Specific Hazards Arising from the Chemical** : No information available
- Special Fire Fight Proc** : Wear self-contained breathing apparatus and full protective clothing. Do not scatter spilled liquid with high pressure water streams. Use of water spray when fighting fire may be inefficient.

6. Accidental Release Measures

- Personal Precautions** : Ensure adequate ventilation. Avoid breathing vapors or mists. Use personal protective equipment as required.
- Protective Equipment** : Safety glasses or face shield, impervious gloves, impervious apron and footwear. Respiratory protection not normally needed. Eyewash and emergency shower should be available in work area.
- Emergency Procedures** : Avoid contact with skin, eyes or clothing.
- Methods and Materials for Containment and Cleanup** : Prevent further leakage or spillage if safe to do so. Pick up and transfer spilled product to properly labeled containers.

7. Handling and Storage

- Precautions for Safe Handling** : Handle in accordance with good industrial hygiene and safety practices. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. Avoid breathing vapors or mists. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory protection equipment.
- Conditions for Safe Storage** : Store locked up. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children.



Safety Data Sheet

Report Date 27-Jun-22

Page 3 of 5

8. Exposure Controls / Personal Protection

TLV/PEL : Ethylene glycol: PEL=vacated; TLV=25 ppm (TWA)(vapor fraction)

Appropriate Engineering Controls : Provide ventilation systems.

Personal Protective Equipment : Safety glasses or face shield, impervious gloves, impervious apron and footwear. Respiratory protection not normally needed. Eyewash and emergency shower should be available in work area.

9. Physical and Chemical Properties

Odor/Appearance : Red, opaque liquid; moderate bitter odor.

Flash Point, °F : >100 Degrees C.

Boiling Point, °F : No data available

Melting Point(Freezing point), °C : No data available

Vapor Pressure, mm Hg @ 20 °C : No data available

Vapor Density : No data available

Solubility in Water : No data available

Molecular Formula : Not applicable, formulated mixture.

Density, g/mL @ 25 °C : 1.0 @ 24 Deg. C.

Evaporation Rate(Butyl Acetate = 1) : No data available

Octanol/Water Partition Coefficient : No information available

pH : 6.0-7.0

Flammable Limits (approximate volume % in air) : No data available

Auto-ignition Temperature : No data available

Decomposition temperature : Not applicable

10. Stability and Reactivity

Reactivity : Not reactive

Chemical Stability : Stable

Hazardous Decomposition Products : None currently known.

Hazardous Polymerization : Will not occur

Conditions to Avoid : Excessive heat

Incompatible Materials : None currently known.

11. Toxicological Information



Safety Data Sheet

Report Date 27-Jun-22

Page 4 of 5

- Acute Toxicity (Oral LD50)** : >5,000 mg/kg (rat). Not classified as hazardous under 29 CFR 1910.1200 (2012).
- Acute Toxicity (Dermal LD50)** : >5,000 mg/kg (rat). Not classified as hazardous under 29 CFR 1910.1200 (2012).
- Acute Toxicity Inhalation LC50** : >2.08 mg/L (rat). Harmful if inhaled.
- Likely Routes of Exposure** : Inhalation
- Skin Irritation** : Not classified as hazardous under 29 CFR 1910.1200 (2012).
- Eye Irritation** : Not classified as hazardous under 29 CFR 1910.1200 (2012)
- Skin Sensitization** : Did not cause sensitization on laboratory animals.
- Carcinogenic** : No information available. No components are listed by IARC, NTP or OSHA.
- Chronic Effects** : Reproductive Toxicity: Suspected of damaging fertility or the unborn child. Contains a known or suspected reproductive toxin. Classification based on data available for ingredients.
- Other Hazards** : CA PROPOSITION 65 **WARNINGS!**: This product can expose you to chemicals including 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.gov.

12. Ecological Information

- Ecotoxicity** : Toxic to aquatic life. Toxic to aquatic life with long lasting effects.
- Persistence and Degradability** : No information available
- Bioaccumulative Potential** : There is no data for this product.
- Mobility in Soil** : No information found
- Other Adverse Effects** : Red Colorant: LC50 (fish)>100 mg/L (96 h, Danio rerio). Ethylene Glycol: EC50=6500-13000 mg/L (96h, Pseudokirchneriella subcapitata); LC50 (fish) ranges from 14-18 mL/L to 41000 mg/L (96h, Oncorhynchus mykiss).

13. Disposal Considerations

- Waste Disposal Method** : This material must be disposed of according to Federal, State or Local procedures under the Resource Conservation and Recovery Act.

14. Transport Information

- UN Proper Shipping Name** : Not regulated by D.O.T.
- Transport Hazard Class** : None
- UN Identification Number** : None
- Packaging Group** : None
- Environmental Hazards** : Not listed as a Marine Pollutant per Appendix B to 49 CFR 172.101.
- Transport in Bulk** : Not regulated by DOT for bulk shipments by ground.
- Special Precautions for Transportation** : Reportable Quantity (RQ) for Ethylene Glycol = 5,000 lbs/>11,419 gal. May be regulated as a Marine Pollutant if shipped by air (IATA) or water (IMDG) under international classification criteria.



Safety Data Sheet

Report Date 27-Jun-22

Page 5 of 5

Freight Classification : Pesticides, NOI, Fungicides, Other than Poison (NMFC Item 155050, Sub 11, Class 70)

15. Regulatory Information

National Fire Protection Association Rating :

Health: 2 Fire: 1 Reactivity: 0
Rating Level: (4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Minimum)

S.A.R.A Title III Hazard Classification (Yes/No) :

Immediate(Acute) Health: Y
Delayed (Chronic) Health: Y
Sudden Release of Pressure: N
Fire: N
Reactive: N

FIFRA Information : This Chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labelling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

EPA Registration Number : 45002-27-5905

FIFRA Signal Word : Caution

FIFRA Label Statement : Keep out of reach of children.

FIFRA Label Statement : Avoid contact with skin, eyes, or clothing.

FIFRA Label Statement : Wear long-sleeved shirt and long pants, socks and shoes, and

FIFRA Label Statement : chemical-resistant gloves made of any waterproof material.

FIFRA Label Statement : Wash thoroughly with soap and water after handling.

FIFRA Label Statement : No additional label statements.

FIFRA Label Statement : No additional label statements.

16. Other Information

Data of Preparation/Revision : 27-June-2022