



Safety Data Sheet

Preparation Date 10-Jan-2017

Revision date 04-Oct-2022

Revision Number: 5

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

Identification of the product

Product Description Dexter Max

Other means of identification

Internal SDS code 12U-329
UN/ID no UN3077
Registration number(s) 70506-329

Recommended use of the chemical and restrictions on use

Recommended use Fungicides.
Uses advised against Activities contrary to label recommendation Non labeled activities

Details of the Supplier of the Safety Data Sheet

Supplier Address

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 Chemtec: (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 sensitization	Category 1
Reproductive Toxicity	Category 2

Label elements

EMERGENCY OVERVIEW

DANGER

Hazard Statements

May cause an allergic skin reaction
May damage fertility or the unborn child



Appearance Granule	Physical state solid	Odor No characterisitic odor
---------------------------	-----------------------------	-------------------------------------

Precautionary Statements - Prevention

Do not handle until all safety precautions have been read and understood
 Wear cold insulating gloves/face shield/eye protection
 Do not get in eyes, on skin, or on clothing
 Contaminated work clothing should not be allowed out of the workplace
 Wear protective gloves

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
 IF ON SKIN: Wash with plenty of soap and water
 If skin irritation or rash occurs: Get medical advice/attention
 Wash contaminated clothing before reuse

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

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

- May be harmful in contact with skin
- Very toxic to aquatic life

3. Composition/information on Ingredients

Chemical name	CAS No	Weight-%
Zinc manganese ethylenebis dithiocarbamate	8018-01-7	70
Ethylene thiourea	96-45-7	0-0.5
Manganese sulfide	18820-29-6	1

If CAS number is "proprietary", the specific chemical identity and percentage 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	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. 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	Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice.

Most Important Symptoms and Effects, Both Acute and Delayed

Most Important Symptoms and Effects no data available.

Indication of Any Immediate Medical Attention and Special Treatment Needed

Notes to physician No information available.

5. Fire-fighting measures

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media no data available.

Specific hazards arising from the chemical

No information available.

Hazardous combustion products Carbon disulfide, ethylene thiourea (ETU). If heated to decomposition (>235 F) flammable ethylene is produced.

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 dust formation. Avoid contact with skin and eyes. Wear protective gloves/protective clothing and eye/face protection. Wash thoroughly after handling.

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 Sweep up and shovel into suitable containers for disposal.

7. Handling and Storage

Precautions for safe handling

Handling Avoid dust formation. Avoid breathing dust. Keep out of reach of children. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid dust formation in confined areas.

Conditions for safe storage, including any incompatibilities

Storage Keep tightly closed in a dry and cool place. If allowed to become wet the product will deteriorate and represent a fire hazard.

incompatible materials Strong acids. Strong oxidizing agents. Aquatic. quaternary ammonium salts.

8. Exposure Controls/Personal Protection

Exposure guidelines

Chemical name	ACGIH TLV	OSHA PEL
Zinc manganese ethylenebis dithiocarbamate		(vacated) Ceiling: 5 mg/m ³
Manganese sulfide	TWA: 0.02 mg/m ³ Mn	(vacated) Ceiling: 5 mg/m ³

	respirable particulate matter TWA: 0.1 mg/m ³ Mn inhalable particulate matter	
--	--	--

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. If splashes are likely to occur, wear: Goggles.

Skin protection

Wear protective gloves/clothing. Chemical resistant footwear plus socks.

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

Appearance	Granule	
Physical state	solid	
Odor	No characteristic odor	
color	Gray Yellow	
<u>Property</u>	<u>VALUES</u>	<u>Remarks/ Method</u>
pH	7.02	None known
Melting point/freezing point		None known
Boiling Point/Range		None known
Flash Point	No information available	None known
Evaporation Rate		None known
Flammability (solid, gas)		None known Not Available
Specific gravity	0.7115 +/- 0.03 g/mL	None known
Bulk density		None known
Water solubility		None known
Solubility in Other Solvents	Dispersible in water	None known
Partition coefficient: n-octanol/water		None known
Autoignition temperature		None known
Decomposition temperature		None known
Viscosity		None known

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

Protect from water.

incompatible materials

Strong acids. Strong oxidizing agents. Aquatic. quaternary ammonium salts.

Hazardous decomposition products

Lead oxides.

11. Toxicological Information

Information on Likely Routes of Exposure**Product information**

Dexter Max:
 Acute Oral LD50 = >5,000 mg/kg
 Acute Dermal LD5 = >5,000 mg/kg
 Acute Inhalation LC50 = >5.218 mg/L (4hr)

Inhalation

May cause irritation of respiratory tract.

Eye contact

Avoid contact with eyes. May cause slight irritation.

Skin contact

Avoid contact with skin. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

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

Azoxystrobin:

Reproductive/Developmental Effects = Weak chromosomal damage in mammalian cells with cytotoxic levels. Negative in whole animal assays for chromosomal and DNA damage @ high doses (>2,000 mg/kg).

In rats developmental effects were seen only at maternally toxic doses (100 mg/kg/day)

Carcinogenicity

No carcinogenicity effects observed in rats or mice at doses up to the maximum tolerated dose. The information below indicates whether any agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Ethylene thiourea 96-45-7	-	Group 3	Reasonably Anticipated	X

IARC: (International Agency for Research on Cancer)

A trace contaminant, Ethylene thiourea (ETU) a breakdown product of Maneb, has been categorized as a probable human carcinogen by NTP.

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 - No information available**LD50 Oral**

> 5,000 mg/kg

LD50 Dermal

> 5,000 mg/kg

LC50 Inhalation > 20.84 mg/l (1 hr)

12. Ecological Information

Y.

ecotoxicity

Mancozeb = Rainbow trout =0.73 mg/L 96 hr
 Fathead minnow 0.57 mg/L 96 hr
 Bluegill sunfish = 0.84 mg/L 96 hr
 Freshwater algae = 0.43 mg/L 72 hr

22.04% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Persistence/Degradability

no data available.

Bioaccumulation/ Accumulation

No information available.

Other Adverse Effects

no data available

13. Disposal Considerations

Waste Treatment Methods

Waste Disposal Method Dispose of contents/container in accordance with local regulation. 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 Do not reuse empty containers. 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:
UN/ID no UN3077
Proper shipping name Environmentally hazardous substances, solid, n.o.s (Mancozeb)
Hazard class 9
Packing group PG III
IMDG - Marine Pollutant Y.

TDG When shipped in Canada domestic highway non-bulk this product can be shipped as Not regulated as per TDG 1.45.1
UN/ID no UN3077
Proper shipping name Environmentally hazardous substance, solid, n.o.s. (Mancozeb)
Hazard class 9
Packing group PG III
Description Marine pollutant

IATA

UN/ID no 3077
Proper shipping name Environmentally hazardous substances, solid, n.o.s (Mancozeb)
Hazard class 9
Packing group PG III
Description IMDG - Marine Pollutant

IMDG

UN/ID no 3077
Proper shipping name Environmentally hazardous substances, solid, n.o.s (Mancozeb)
Hazard class 9
Packing group PG III
Environmental hazards This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO

15. Regulatory Information

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling 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:

signal word CAUTION

Keep out of Reach of Children. Prolonged or frequent repeated skin contact may cause allergic reaction in some individuals. Toxic to aquatic organisms.

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

Y

CERCLA

Not applicable

Chemical name	RQ	CERCLA EHS RQs	RQ
---------------	----	----------------	----

Ethylene thiourea 96-45-7	10 lb	RQ 10 lb final RQ RQ 4.54 kg final RQ
------------------------------	-------	--

CERCLA

Component	RQ
Ethylene thiourea 96-45-7 (0-0.5)	10 lb

RCRA

Component	RCRA - D Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Ethylene thiourea 96-45-7 (0-0.5)			U116

Pesticide Information

Component	FIFRA - Restricted Use	FIFRA - Pesticide Product Other Ingredients	FIFRA - Listing of Pesticide Chemicals	California Pesticides - Restricted Materials
Zinc manganese ethylenebis dithiocarbamate 8018-01-7 (70)			X	
Ethylene thiourea 96-45-7 (0-0.5)			X	

State Regulations

California Proposition 65 This product contains the following Proposition 65 chemicals:

Component	California Prop. 65	
Zinc manganese ethylenebis dithiocarbamate 8018-01-7 (70)	Carcinogen	
Ethylene thiourea 96-45-7 (0-0.5)	Carcinogen Developmental	
Chemical name	CAS No	CATEGORY
Zinc manganese ethylenebis dithiocarbamate	8018-01-7	Carcinogen
Ethylene thiourea	96-45-7	Carcinogen

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
Ethylene thiourea - 96-45-7	X	X	X	X	

International regulations

U.S. EPA Label information

EPA Pesticide registration number 70506-329

16. Other Information

NFPA HEALTH 2 flammability 0 Instability 0 Physical hazard -

Preparation Date 10-Jan-2017
Revision date 04-Oct-2022

Revision Summary
Update section 2

Disclaimer

UPL NA Inc. believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY, OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specific product designated and may not be valid where such product is used in combination with other materials or in any process. Further, since the

conditions and methods of use are beyond the control of UPL NA Inc. and UPL NA Inc. expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information.

End of SDS