

SAFETY DATA SHEET

This Safety Data Sheet (SDS) complies with the requirements of the U.S. Federal Occupational Safety and Health Administration Hazard Communication 29 CFR 1910.1200 (g)(2).

NEATLAND SHIELD WG

Version Revision Date:
3.0 01/23/2026

1. IDENTIFICATION OF THE PRODUCT & COMPANY

Product Name: NEATLAND SHIELD WG

Other means of identification: EPA Reg. No. 103087-14

Intended Use: Fungicide

Company Identification:

Longwind Cropsience USA LLC.
8 THE GREEN, STE A, DOVER, KENT,
DE, 19901, UNITED STATES

Emergency Information: In the event of a leak, fire or medical emergency involving a human or animal please call INFOTRAC at 1-800-535-5053 or Outside the USA and Canada at 1-352-323 3500, 24/7/365.

2. HAZARD IDENTIFICATION

GHS-US classification

Health and Environmental Hazards:

Inhalation	Category 4
Carcinogenicity	Category 2
Reproductive toxicity	Category 1B
Specific Target Organ Toxicity - repeated exposure	Category 2 (Thyroid, Nervous system)

Required Label Elements



Pictograms:

Signal Word:

Danger
Page 1 of 7

Hazard Statements:

H317 May cause an allergic skin reaction.

H332 Harmful if inhaled.

H351 Suspected of causing cancer.

H360D May damage the unborn child.

H373 May cause damage to organs (Thyroid, Nervous system) through prolonged or repeated exposure.

Precautionary Statements:**Prevention:**

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe dust.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing must not be allowed out of the workplace.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER/ doctor if you feel unwell.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

P363 Wash contaminated clothing before reuse.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other Hazard Statements:

May form combustible dust concentrations in air.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	CONTENT %	Active Ingredient
Metalaxyl-M	70630-17-0	4	X
Mancozeb	8018-01-7	64	X

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

4. FIRST AID MEASURES

General advice: Have the product container, label or Safety Data Sheet with you when calling the emergency number, a poison control center or physician, or going for treatment.

Skin contact: If on skin or clothing: Take off all contaminated clothing immediately. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.

Eye contact: If in eyes: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.

Ingestion: If swallowed: seek medical advice immediately and show this container or label. Do NOT induce vomiting.

Inhalation: If inhaled: Take the victim into fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest. Call a physician or poison control center immediately.

Most important symptoms/effects: Nonspecific. No symptoms known or expected.

Indication of immediate medical attention and special treatment needed: There is no specific antidote if this product is ingested. Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:

Extinguishing media - small fires

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Extinguishing media - large fires

Alcohol-resistant foam or Water spray

Unsuitable extinguishing media:

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

Fire and Explosion Hazards:

Fire will spread by smoldering or slow decomposition.

As the product contains combustible organic ingredients, fire will produce dense black smoke containing hazardous products of combustion (see section 10).

Exposure to decomposition products may be a hazard to health.

Special protective equipment for fire-fighters: Wear full protective clothing and self-contained breathing apparatus.

Further information:

Do not allow run-off from fire fighting to enter drains or water courses.

Cool closed containers exposed to fire with water spray.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Refer to protective measures listed in sections 7 and 8.

Avoid dust formation.

Environmental precautions:

Do not flush into surface water or sanitary sewer system.

If the product contaminates rivers and lakes or drains inform respective authorities.

Method for cleaning up:

Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).

Do not create a powder cloud by using a brush or compressed air.

Clean contaminated surface thoroughly.

Clean with detergents. Avoid solvents.

Retain and dispose of contaminated wash water.

7. HANDLING AND STORAGE

Handling:

This material is capable of forming flammable dust clouds in air, which, if ignited, can produce a dust cloud explosion. Flames, hot surfaces, mechanical sparks and electrostatic discharges can serve as ignition sources for this material.

Electrical equipment should be compatible with the flammability characteristics of this material. The flammability characteristics will be made worse if the material contains traces of flammable solvents or is handled in the presence of flammable solvents.

This material can become readily charged in most operations.

Avoid contact with skin and eyes.

When using do not eat, drink or smoke.

For personal protection see section 8.

Conditions for safe storage, including any incompatibilities:

Keep containers tightly closed in a dry, cool and well ventilated place.
 Keep out of the reach of children.
 Keep away from food, drink and animal feedingstuffs.

8. **EXPOSURE CONTROL/PERSONAL PROTECTION**

Control parameters Exposure Limits

Chemical Name	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Mancozeb	C	5 mg/m ³ (Manganese)	OSHA Z-1
	C	5 mg/m ³ (Manganese)	OSHA P0
	TWA	1 mg/m ³ (Manganese)	NIOSH REL
	ST	3 mg/m ³ (Manganese)	NIOSH REL
Metalaxyl-M	-	Not Established	OSHA PEL
	-	Not Established	ACGIH TLV

Engineering measures:

Use The following recommendations for exposure controls/personal protection are intended for the manufacture, formulation and packaging of the product. For commercial applications and/or on-farm applications consult the product label.

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated.

The extent of these protection measures depends on the actual risks in use.

Maintain air concentrations below occupational exposure standards.

Where necessary, seek additional occupational hygiene advice.

Individual protection measures, such as personal protective equipment

Eye Protection: Where eye contact is likely, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Respiratory protection: Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection: Wear protective gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The break through time depends amongst other things from the material, the thickness and the type of glove and therefore has to be measured for each case. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin Protection: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. Remove and wash contaminated clothing before re-use. Wear as appropriate: Dust impervious protective suit

9. **PHYSICAL AND CHEMICAL PROPERTIES**

Appearance:	Yellow solid particle
Odor:	No pungent smell
Melting/Freezing Point:	No data available
pH:	6 - 9 (1% w/v)
Solubilities:	Not determined
Flammability:	Not considered highly flammable
Density:	Pour density: 0.6588g/mL, Tap density: 0.7068g/mL
Explosibility:	No Explosibility
Viscosity:	No data available

10. **STABILITY AND REACTIVITY**

Reactivity: None reasonably foreseeable.

Chemical Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: No dangerous reaction known under conditions of normal use.

Conditions to Avoid: No decomposition if used as directed.

Incompatible Materials: None known.

Hazardous Decomposition Products: No hazardous decomposition products are known.

11. **TOXICOLOGICAL INFORMATION**

Product Information

Acute toxicity

Oral (LD₅₀ Rat) : >5000 mg/kg body weight

Dermal (LD₅₀ Rat) : >2000 mg/kg body weight

Inhalation (LC₅₀ Rat) : >1.16 mg/L air - 4 hours

Eye Contact: Non Irritant

Skin Contact: Non Irritant

Skin Sensitization: Non Sensitizer

Germ cell mutagenicity

Mancozeb: Animal testing did not show any mutagenic effects.

Metalaxyl-M: Animal testing did not show any mutagenic effects.

Carcinogenicity

Mancozeb: Limited evidence of carcinogenicity in animal studies

Metalaxyl-M: No evidence of carcinogenicity in animal studies.

Reproductive toxicity

Mancozeb: Clear evidence of adverse effects on development, based on animal experiments.

Metalaxyl-M: No toxicity to reproduction

STOT-repeated exposure

Mancozeb:

Target Organs : Thyroid, Nervous system

Assessment : The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

Metalaxyl-M:

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

12. **ECOLOGICAL INFORMATION**

Ecotoxicity

Product

Birds: Acute oral LD₅₀ for Coturnix japonica >2000mg/kg body weight.
Fish: Acute LC₅₀ (96 h): for Danio rerio 8.79mg/l.
Algae:ErC₅₀ (72 h) for Pseudokirchneriella subcapitata 0.36 mg/l.
EyC₅₀ (72h) for Pseudokirchneriella subcapitata 8.8×10⁻² mg/l.
Daphnia:EC₅₀(24h) 2.10mg/L; EC₅₀(48h) 1.60mg/L.
Bees:LD₅₀ (oral) >117.14 µg/bee; (contact) >100µg/bee.
Worms:Acute LC₅₀ for Eisenia foetida corr >1000 mg/kg.

Persistence and degradability

and Mancozeb:
Biodegradability : Result: Not readily biodegradable.
Stability in water : Degradation half life: 5.8 - 55 h
Remarks: Product is not persistent.

Metalaxyl-M:
Biodegradability : Result: Not readily biodegradable.
Stability in water : Degradation half life: 22.4 - 47.5 d
Remarks: Product is not persistent.

Bioaccumulative potential

Mancozeb:
Bioaccumulation : Bioconcentration factor (BCF): < 100
Remarks: Low bioaccumulation potential.
Partition coefficient: n-octanol/water : log Pow: 1.38

Metalaxyl-M:
Bioaccumulation : Remarks: Low bioaccumulation potential.
Partition coefficient: n-octanol/water : log Pow: 1.71 (77 °F / 25 °C)

Mobility in soil

Mancozeb:
Distribution among environmental compartments : Remarks: Low mobility in soil.
Stability in soil : Dissipation time: 6 - 15 h
Percentage dissipation: 50 % (DT₅₀)
Remarks: Product is not persistent.

Metalaxyl-M:
Distribution among environmental compartments : Remarks: Metalaxyl has a range from low to very high mobility in soil depending on soil type.
Stability in soil : Dissipation time: < 50 d
Percentage dissipation: 50 % (DT₅₀)
Remarks: Product is not persistent.

Other adverse effects

Mancozeb:
Results of PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Metalaxyl-M:
Results of PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

13. DISPOSAL CONSIDERATIONS

Disposal:

Waste from residues:

Do not contaminate ponds, waterways or ditches with chemical or used container.

Do not dispose of waste into sewer.

Where possible recycling is preferred to disposal or incineration.

If recycling is not practicable, dispose of in compliance with local regulations.

Contaminated packaging:

Empty remaining contents.

Triple rinse containers.

Empty containers should be taken to an approved waste handling site for recycling or disposal.

Do not re-use empty containers.

14. TRANSPORTATION INFORMATION

UN Number: 3088

Proper Shipping Name: SELF-HEATING SOLID, ORGANIC, N.O.S.

Hazard Class or Division: Class 4.2

Packing Group: PG II

15. REGULATORY INFORMATION

Pesticide Registration:

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:

Caution: Causes moderate eye irritation. Avoid contact with eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco.

EPA Registration Number(s): 103087-14

EPCRA SARA Title III Classification:

Section 311/312 Hazard Classes: Acute Health Hazard

Section 313 Toxic Chemicals: None

16. OTHER INFORMATION

This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of the how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made the user should contact the company.