



MATERIAL SAFETY DATA SHEET

NANO GUARD

1. PRODUCT

NanoGuard is unique liquid, organic, non toxic, residue-free formulation based on nano technology. It is an eco-friendly product used in protecting the crops against various fungal and bacterial diseases. It radically inhibits the growth of Diseases caused by genera Erwinia, Pectobacterium, Pantoea, Agrobacterium, Pseudomonas, Ralstonia, Burkholderia, Acidovorax, Xanthomonas, Clavibacter, Streptomyces, Xylella, Spiroplasma, and Phytoplasma. (Angular leaf spot, Bacterial blight, Bacterial leafspot, Canker wide range of blights, mildews, rots, blotches and spots etc) The crop protection sprays are very effective in protecting a wide range of crops.

RECOMMENDED FOR:

All types of fungal and bacterial diseases.

2. COMPOSITION OF PRODUCT

No	Parameter	Unit	Specification
1	Disinfecting Agent	%	25
2	Solvent	%	65
3	Emulsifier and Stabilizers	%	10

3. HAZARD IDENTIFICATION

This product does not require labeling.

4. FIRST AID

GENERAL

Non-hazardous material. If irritation or discomfort occurs, seek medical advice from a physician.

EYE CONTACT

Non-irritating to ocular tissue. Immediately flush eyes with plenty of water. Keep eyes wide open while flushing. Seek medical attention if irritation occurs.

SKIN CONTACT

Non-irritating to skin. Wash with mild soap and water. Seek medical attention if discomfort occurs.

INHALATION

Non-toxic. Do not intentionally breathe vapors.

INGESTION

Non-toxic if ingested. Drink plenty of water or milk. Seek medical attention if discomfort occurs.

OVER EXPOSURE

Not applicable.

5. FIRE FIGHTING MEASURES

FLASH POINT

Not applicable.

FLAMMABLE LIMITS

Not applicable.

PROPER FIREFIGHTING EQUIPMENT

Use extinguishing media appropriate for surrounding fire. Caution: Slippery in liquid form or when mixed with water.

FIRE AND EXPLOSION HAZARDS

Non-flammable. Non-explosive.

6. UNINTENTIONAL LIBERATION OR RELEASE MEASURES

SAFETY MEASUREMENTS TO PROTECT PERSONS

Gloves and eye protection should be worn when handling due to temporary staining.

PROPER METHODS FOR DAMAGE LIMITATION AND CLEANUP

Spills may be easily cleaned by removing as much solid as possible and washing remaining spill with copious amounts of water. Avoid loose product on floor in damp areas as product may become slippery with the addition of clean-up water. Gloves and eye protection should be worn due to temporary staining.

7. HANDLING AND STORAGE

HANDLING ADVICE

Avoid handling which may cause staining. Use personal protective equipment as specified in section 8.

STORAGE

Store in cool place and out of direct sunlight. Do not contaminate water, food or feed by storage or disposal.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

EXPOSURE CONTROL

No specific ventilation requirements. Eyewash facilities should be available.

RESPIRATION PROTECTION

No respirator is required.

EYE PROTECTION

Eye protection should be worn when handling due to temporary staining.

HAND PROTECTION

Gloves should be worn when handling due to temporary staining.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Liquid	Air Reactive	n/a
Color	YELLOW	Percent Volatile (by Volume)	n/a
Odor	ODOR LESS	Bulk Density	-
Solubility	100 % water	Solubility in Water	100% At 20 ^o C
Melting Point/Range	Not Determined	Saturation Conc.	Not Determined
Expl. Limit LEL-UEL.%-%	n/a	Rel.Density Sat. Air (Air=1)	Not Determined
Vapor Pressure	Not Determined	Boiling point/Range	Not Determined
Decomposition Temp	Not Determined	pH Concentrate	n/a
pH Value	6-7	Viscosity	n/a
Flash point	n/a	Smelling Limits lo-hi	Not Determined
Molecular Weight	Not Determined	Rel. Evap. Velocity	Not Determined
Ignition Temp.	550 ^o C	Water Reactive	n/a
Rel. Vapor Density (air=1)	Not Determined		

10. STABILITY AND REACTIVITY

STABILITY

Product is stable.

CONDITIONS TO AVOID

Excessive heat or freezing.

MATERIALS TO AVOID

Oxidants and acids may cause degradation.

HAZARDOUS DECOMPOSITION PRODUCTS

Not applicable.

HAZARDOUS POLYMERIZATION

Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE ORAL TOXICITY

Non-toxic orally. Ingestion of significant amounts may cause nausea and discomfort.

ACUTE OCULAR TOXICITY

Non-irritating to the ocular tissue of non-irrigated eyes.

ACUTE DERMAL TOXICITY

Not toxic dermally. No treatment-related effects were observed.

ACUTE DERMAL IRRITATION

No irritation or corrosive effects were observed.

INHALATION TOXICITY

Not hazardous by inhalation.

SKIN SENSITIZATION

Very slight erythematic observed with no other signs of irritation.

12. ECOLOGICAL INFORMATION

BREAKDOWN

Biodegradable. Product presents minimal environmental impact.

ECOTOXICITY

Plant nutritional supplement and growth stimulant, high concentrations may cause burn of plants. Non toxic to marine algae, vertebrates or invertebrates.

13. DISPOSAL CONSIDERATIONS

Not classified as hazardous waste. Product must be disposed of according to Federal, State or local procedures.

14. TRANSPORT INFORMATION

GENERAL

Non-hazardous material according to transport regulations. No special precautions are necessary.

15. REGULATORY INFORMATION

R-PHRASES

The product does not require labeling. Marking according to hazardous product regulations is not required.

16. DIRECTION OF USE

This product can be added to most nitrogen solutions or fluid fertilizers and impregnated on dry blend fertilizers. It can be tank mixed with most pesticides. Always make a small-scale test to assure compatibility. It can be soil or foliarly applied, broadcast or banded over the row and injected through irrigation systems.

CAUTION: Do not use in high phosphate “starter”

Nanoguard will disperse in water with minimal agitation. It serves as a buffer when used in tank mixes with pesticides. The following mixing sequence should be followed:

1. Water
2. Nanoguard
3. Other Fertilizers or Pesticides

17. RECOMMENDED RATE

The optimum rate and timing of application will vary depending on local conditions and should always be made as a result of soil and/or plant analysis and in consultation with your local agricultural authority. In the absence of test results, use the following as a guide:

Foliar spray: **Mix 2 product per Ltr. of water.**

18. SHELF LIFE

At least Two (2) years if undiluted, capped and stored properly in the original closed containers.