

Amylo-X

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Distributed and Registered by: Madumbi Sustainable Agriculture
 Postnet Suite 20, Private Bag X6011
 Hilton, 3245
 Emergency Telephone no.:27 (0)33 342 3984

Manufactured by: Certis USA, L.L.C.
 9145 Guilford Rd, Suite 175
 Columbia, MD 21046

2. COMPOSITION/INFORMATION ON INGREDIENTS

Product description: Water dispersible granular biofungicide containing spores of the bacteria *Bacillus amyloliquifaciens* for the suppression of powdery and downy mildew on crops as specified. No hazardous components.

Dangerous ingredients: None

3. HAZARDS IDENTIFICATION

Important hazards: None
Hazard statements: Caution

4. FIRST AID MEASURES

Symptoms and effects: No typical symptoms and effects known

General: In all cases of doubt, or when symptoms persist, seek medical attention.

Inhalation: Move person to fresh air. If person is not breathing seek immediate medical attention and provide artificial respiration (mouth-to-mouth) if possible. Call a poison centre or doctor for further advice.

Skin: Remove contaminated clothing. Rinse skin with plenty of water for 15-20 minutes. Seek medical advice if irritation develops. Launder clothes before reuse.

Eye: Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Seek medical advice if irritation develops.

Ingestion: No typical symptoms and affects known.

Advice to physician: Symptomatic treatment is advised.

5. FIRE FIGHTING MEASURES

Extinguishing media: Water mist, alcohol resistant foam, dry powder, carbon dioxide.

Unsuitable media: None.

Special exposure hazards: None known.

Hazardous decomposition/combustion products: None

Protective equipment: No specific recommendations

Other information: None

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: The usual precautions for handling chemicals should be observed.

Environmental precautions: No specific recommendations

Methods for cleaning up: Collect as much as possible; in a clean container for (preferable) reuse or disposal. Use absorbent material to minimize runoff of mixed product.
 Other information for personal protection see Section 8.

7. HANDLING AND STORAGE

Handling: The usual precautions for handling-chemicals should be observed.
Fire and explosion: No specific recommendations. Avoid contact with oxidizing agents.
Storage requirements: Store in a dry area inaccessible to children. Store in original container and keep closed when not in use.
Other information: To maintain quality store in a cool, dry place. Avoid elevated temperatures.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Engineering controls: The usual precautionary measures for handling chemicals should be observed.
Exposure limits: No exposure limit has been established
Personal protection:
Respiratory protections: Wear an approved respirator with N, P, R or HE filter.
Protective clothing: Long sleeved shirt and long pants, waterproof gloves, shoes and socks.
Eye protection: Use goggles. Avoid contact with eyes.
Hygienic practices: Remove contaminated clothing/PPE immediately after handling product. Wash the outside of gloves before removing. As soon as possible wash thoroughly and change into clean clothing.
Other information: The usual precautions for handling chemicals should be observed. Prolonged or frequent repeated skin contact may cause allergic reaction in some individuals.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Powder
Colour: Brown
Boiling point/range: Not relevant
Flash point: 392°C
Flammability: Not highly flammable
Explosive properties: Not explosive
Explosion limits: Not explosive
Oxidizing properties: Not oxidising
Vapour pressure: N/A
Density: 0.43 g/mL
Bulk density: Not relevant
Solubility in water: Water miscible
Solubility in other solvents: Not determined
pH value: 8.6
Partition coefficient:
n-Octanol/water: Not determined
Relative vapour density (air=1): Not determined

10. STABILITY AND REACTIVITY

Stability: Stable
Conditions to avoid: None known
Materials to avoid: None known
Hazardous decomposition products: None known

11. TOXICOLOGICAL INFORMATION

Name:	AMYLO-X (USA trade name – DOUBLE NICKLE 55)
Acute toxicity:	
LD₅₀ (oral)	> 5000 mg/ka bw. Rat
LD₅₀ (dermal)	> 5050 mg/kg bw.
LD₅₀ (inhalation)	> 2.18 mg/L
Irritation	
Skin:	Non-irritating
Eye:	Mildly irritating

12. ECOLOGICAL INFORMATION

Name:	AMYLO-X
Ecotoxicity	
Bird:	LD ₅₀ > 2250 mg/kg
Fish:	EC ₅₀ > 2.3 x 10 ¹⁰ mg/kg
Algae:	LC ₅₀ > 144 mg/L
Fate	
Degradation:	Biotic Biodegradable

13. DISPOSAL CONSIDERATIONS

Product:	According to local regulations (most probably controlled incineration).
Contaminated packaging:	According to local regulations

14. TRANSPORT INFORMATION

There are no transport regulations or restrictions for this product.

15. REGULATORY INFORMATION

Labelling according to EC directives	
Symbols (s):	none
Risk phrase(s):	none
Safety phrase(s):	none

16. OTHER INFORMATION

This information only concerns the above mentioned product and does not need to be valid if used with other product(s) or in any process. The information is to our best present knowledge correct and complete and is given in good faith but without warranty. It remains the user's own responsibility to make sure that the information is appropriate and complete for his special use of this product.

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