


SAFETY DATA SHEET (SDS)

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	Symvado® Granular
Product Code(s) / SKU(s)	AS10008.04.101
Identified Use	Inoculant
Manufacturer Information	Valent BioSciences LLC
Manufacturer Address	1910 Innovation Way, Suite 100
City, State Zip Code Country	Libertyville, IL 60048 USA
USA Phone Number	(877) 696-4204
24 Hour Medical Emergency Phone Numbers	(877) 315-9819 (ProPharma) (800) 424-9300 (Domestic – ChemTrec) (703) 741-5970 (International – ChemTrec)

2. HAZARDS IDENTIFICATION

OSHA Regulatory Status: Hazard Communication Standard (29 CFR 1910.1200)
2.1 Classification of the Substance or Mixture
GHS Classification: Category 1.A Signal Word: Danger Symbol/Pictogram: 
Hazard Statements: May cause cancer by inhalation. Causes damage to lungs through prolonged or repeated exposure by inhalation.
2.2 GHS Label Elements
Prevention Statements: Do not handle until all safety precautions have been read and understood. Do not breathe dust. Wash thoroughly after handling. Wear protective gloves and clothing. Do not eat, drink, or smoke when using this product. Response Statements: If exposed or concerned, seek medical advice/attention. Storage: Store in a dry area. Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.
2.3 Other Hazards
None known.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical / Substance Name</u>	<u>Classification</u>	<u>CAS No.</u>	<u>Concentration (w/w %)</u>
Silica Hydrated (Amorphous Opaline Silica)	Not classified	7631-86-9	90-99%
Quartz (Respirable <0.1%)	Not classified	14808-60-7	0-5%
Proprietary – Other Ingredients	Not classified	NA	1-10%

*Exact percentages vary based on batch-to-batch variability. Ingredients not identified are proprietary or non-hazardous.

4. FIRST AID MEASURES

4.1 Description of First Aid Measures	
Eye Contact	Rinse opened eye for several minutes under running water. If irritation persists or for foreign body in the eye, seek medical attention.
Skin Contact	Wash with soap and water. Exposure to skin may cause mild irritation and dry skin.
Ingestion	If used material is ingested, seek medical attention. If large amount of unused material is swallowed, seek immediate medical attention.
Inhalation	Move to fresh air. If irritation or other symptoms occur, seek medical attention.
4.2 Most Important Symptoms and Effects, Both Acute and Delayed	
Acute: Not known – treat with caution. No information on acute adverse effects.	
Delayed: Not known – treat with caution. No information on delayed adverse effects.	
4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed	
Treat symptomatically and supportively.	

5. FIRE FIGHTING MEASURES

5.1 Extinguishing Media and Suitable Extinguishing Media
Suitable Extinguishing Media: Use media that is appropriate for surrounding fire.
Unsuitable Extinguishing Media: None known.
5.2 Special Hazards Arising from the Substance or Mixture
Thermal Decomposition Products: None known.
5.3 Special Protective Equipment / Procedures for Firefighters
Protective Equipment and Precautions for Firefighters: Breathing apparatus and protective clothing for fires involving chemicals or in confined spaces.
Fire and Explosive Hazard: None known.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures
None known.
6.2 Environmental Precautions
Report releases as required by local and federal regulations.
6.3 Methods and Material for Containment and Cleaning Up
None known.
6.4 Containment and Cleaning Up
Sweep up and collect for proper disposal.

7. HANDLING AND STORAGE

7.1 Precautions for Safe Handling
Avoid breathing dust. Ensure good ventilation/exhaustion at the workplace. Follow good housekeeping practices to keep surfaces, including areas overhead such as piping, drop ceilings, ductwork, etc., dust free.
7.2 Conditions for Safe Storage, Including any Incompatibilities
Store in a dry area. Keep container tightly sealed.
7.3 Incompatibilities
None known.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control Parameters: Component Exposure Levels (Information collected from supplier Safety Data Sheets)			
Component	Regulation	Type of Listing	Value
Silica Hydrated (Amorphous Opaline Silica)	TWA OSHA PEL	% SiO ₂	80 mg/m ³
Quartz (crystalline silica)(respirable <1%)	TWA OSHA	% SiO ₂ +2 (total dust)	30 mg/m ³
	TWA OSHA PEL	%SiO ₂ +2 (respirable dust)	10 mg/m ³
	TWA ACGIH TLV	(Respirable dust)	0.025 mg/m ³
8.2 Exposure Controls			
Engineering Controls	General ventilation is adequate for normal use. For operations where the exposure limit may be exceeded, local exhaust ventilation is recommended.		
Respiratory Protection	For operations where the exposure limit may be exceeded, a NIOSH/MSHA approved high efficiency particulate respirator is recommended.		
8.3 Personal Protective Equipment			
Skin Protection	None required for normal use.		
Eye Protection	Safety glasses or goggles recommended.		
Respiratory Protection	None required for normal use. For operations where the dust concentration may exceed the OSHA or other regulatory exposure limits, or if the dust is visibly excessive, a NIOSH approved particulate respirator should be used. Follow OSHA regulations (or other national regulations, as applicable) in the proper selection and use respiratory protection.		

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties	
Property	Value
State:	Granular Solid
Appearance:	Tan to Dark Brown
Odor:	No odor
Odor Threshold:	Not determined
pH:	Not determined
Melting Point / Freezing Point:	Not applicable
Initial Boiling Point and Range:	Not determined

Flashpoint:	Not determined
Evaporation Rate (Butyl acetate=1):	Not applicable
Flammability (solid, gas):	Not applicable
Flammable Limits in Air % by Volume:	Not determined
Upper / Lower Flammability Limits:	Not determined
Vapor Pressure:	Not applicable
Vapor Density (air=1):	Not applicable
Relative Density (water=1):	Not determined
Solubility:	Insoluble
Partition Coefficient (n-octanol/water):	Not determined
Autoignition Temperature:	Not determined
Decomposition Temperature:	Not determined
Viscosity:	Not determined
Flammability Class:	Not determined
Oxidation Properties:	Not determined

10. STABILITY AND REACTIVITY

10.1 Reactivity	No further relevant information available.
10.2 Chemical Stability	No decomposition if used according to specifications.
10.3 Possibility of Hazardous Reactions	None known.
10.4 Conditions to Avoid	No further relevant information available.
10.5 Incompatible Materials	Turpentine, hydrofluoric acid, vegetable oil, fish oil, unsaturated organic compound.
10.6 Hazardous Decomposition Products	No dangerous decomposition products known.

11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects	
Likely Routes of Exposure:	
Ingestion	No adverse effects expected with unused material.
Inhalation	Inhalation of excessive concentrations of dust may cause irritation to the respiratory tract.
Eye Contact	Contact may cause mechanical irritation and possible injury.
Skin Contact	No adverse effects expected.
11.2 Acute Toxicity	No toxicity data available.
11.3 Corrosivity	This is not a corrosive product.
11.4 Carcinogen Status	The International Agency for Research on Cancer (IARC), in Monograph 100C has concluded that crystalline silica inhaled in the form of quartz is carcinogenic to humans (Group1). Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs. The National Toxicology Program (NTP) classifies crystalline silica as a known carcinogen. Applications and exposure data indicate that exposure to respirable quartz in this product with normal use is well below the OSHA Permissible Exposure Limit (PEL) and ACGIH Threshold Limit Value (TLV). The manufacturer is not aware of any scientific or medical data available indicating that exposure to respirable crystalline silica from this product under conditions of normal use will cause silicosis or cancer. Adverse effects would not be expected from normal use of this product.
11.5 Repeat Dose Toxicity	No toxicity data available. Inhalation of excessive concentrations of any dust, including this material, may lead to lung injury. This product contains <0.1% respirable crystalline silica. Excessive inhalation of respirable crystalline silica may cause silicosis, a progressive, disabling, and fatal disease of the lung. Symptoms may include cough, shortness of breath, wheezing and reduced pulmonary function.

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity	No data available for the product. No adverse effects on the environment are expected.
12.2 Persistence and Degradability	Amorphous opaline silica and silica are non-degradable.
12.3 Bio-accumulative Potential	No further relevant information available.
12.4 Mobility in Soil	No further relevant data available.
12.5 Results of PBT and vPvB Assessment	PBT: Not applicable. vPvB: Not applicable.
12.6 Other Adverse Effects	None known.

13. DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods
Dispose of product in accordance with local, state, and federal environmental regulations. Unused material is suitable for disposal in a sanitary landfill. Used material may be subject to regulation, depending on the nature of the material absorbed. Check with appropriate regulatory authority for used material.

14. TRANSPORT INFORMATION

14.1 Transport Information				
	DOT	IMDG	IATA	TDG
UN Number	Not applicable	Not applicable	Not applicable	Not applicable
Proper Shipping Name	Not regulated	Not regulated	Not regulated	Not regulated
Hazard Class(es)	Not applicable	Not applicable	Not applicable	Not applicable
Packing Group	Not applicable	Not applicable	Not applicable	Not applicable
Special Precautions	Consult IMO regulations before transporting ocean bulk. Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code.			

15. REGULATORY INFORMATION

15.1 Safety, Health and Environment Regulations / Legislation Specific for the Substance or Mixture	
US EPA Toxic Substances Control Act (TSCA)	Components of this product are listed on the EPA TSCA Inventory or exempt from notification requirements.
CERCLA STATUS	None.
SARA STATUS	Acute: No. Chronic: No. CDT: No.
SARA 313	None.
EINECS	Components of this product are listed on the EINECS Inventory or exempt from notification requirements.
EEC R&S Phrases	Xn Harmful, R48/20 Harmful: Danger of serious damage to health by prolonged exposure by inhalation; S22 Do not breathe dust; S38 In case of insufficient ventilation, wear suitable respirator equipment.
State Right-To-Know	California Proposition 65: This product contains respirable crystalline silica which is known to the State of California to cause cancer. Consult applicable national, state provincial or local laws to determine regulations, laws or ordinances which may be applicable.
OSHA HAZARD COMMUNICATION STANDARD	Not defined by the OSHA Hazard Communication Standard, 29 CFR.
15.2 Pesticide Labeling: Not an EPA registered pesticide.	
15.3 International Regulations	
Japan MITI	No data available.
AICS	No data available.

16. OTHER INFORMATION

HMIS Ratings:	Health – 0*	Flammability – 0	Reactivity – 0
0 = Minimal Hazard, 1 = Slight Hazard, 2 = Moderate Hazard, 3 = Serious Hazard, 4 = Severe Hazard			
NFPA Hazard Ratings:	Health – 0*	Flammability – 0	Reactivity – 0
0 = Minimal Hazard, 1 = Slight Hazard, 2 = Moderate Hazard, 3 = Serious Hazard, 4 = Severe Hazard			
16.1 GHS Abbreviations and Phrases for Reference			
® = Registered Trademark ™ = Registered Trademark L = Listed S = Short-term N/A = Not Applicable N/L = Not Listed N/D = Not Determined C = Ceiling			
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Safety Data Sheet (SDS)
Symvado® Granular
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This Safety Data Sheet (SDS) may provide more information than the product label but does not replace or modify the product labeling (attached to and accompanying the product container). The product SDS and the product label both provide consistent and important health, safety, and environmental information as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom"). This requirement covers employers, employees, emergency responders, users and others handling the product. All necessary hazard classification and appropriate precautionary, use, storage, and disposal information are set forth on the labeling and the SDS.

Revision History:

08/01/2023: Original SDS issue date.

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