

1. IDENTIFICATION

Product Identifier	Validamycin
Product Number	V012
Distributor Name	TOKU-E Company
Distributor Address	715 W Orchard Dr, Suite 3 Bellingham, WA 98225
Phone Number	(360) 734-1789
Emergency Phone Number (US only)	1 (800) 535-5053
Emergency Phone Number (International)	+1 (352) 323-3500
Safety Data Sheet Issued by	TOKU-E USA
CAS-Number	[37248-47-8]
Recommended Use	Antibiotic and fungicidal compound produced by <i>Streptomyces hygroscopicus</i> . Validamycin is used to inhibit <i>Rhizoctonia</i> species, a group of pathogens notorious for causing diseases in potatoes, cotton, sugar beets, and rice
Restrictions on Use	Not for human or animal use

2. HAZARD(S) IDENTIFICATION

GHS Classification	Skin irritant (Category 2) Eye irritant (Category 2) Specific target organ toxicity, single exposure, respiratory tract (Category 3)
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GHS Label Elements, Including
Precautionary statements



Hazard Statements

Signal Word: Warning
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H335: May cause respiratory irritation.
P264: Wash hands thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P362 + P364: Take off contaminated clothing and wash before reuse
P261: Avoid breathing dust/fumes/gas/mist/vapours/spray.

Precautionary Statements

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

P332 + P313: If skin irritation occurs, get medical advice/attention.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P337 + P313: If eye irritation persists, get medical advice/attention.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonym(s)

Valimon;

Validacin;

Formula

$C_{20}H_{35}NO_{13}$

Molecular Weight

497.50 g/mol

CAS-Number

[37248-47-8]

EC-Number

List number [609-372-4]

4. FIRST-AID MEASURES

General Advice

Consult a physician. Show this Safety Data Sheet to the medical provider

If Inhaled

If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a doctor

In Case of Eye Contact

Rinse thoroughly with plenty of water for at least 15 minutes, consult a doctor

If Swallowed

Never give anything by mouth to an unconscious person. Consult a doctor. Rinse mouth with water.

5. FIRE-FIGHTING MEASURES

Conditions of Flammability

Not flammable or combustible

Suitable Extinguishing Media

Water spray, alcohol-resistant foam, dry chemical, carbon dioxide

Special Protective Equipment for Firefighters

Wear self-contained breathing apparatus

Hazardous Combustion Products

Formed under fire conditions: Carbon and Nitrogen oxides

6. ACCIDENTAL RELEASE MEASURES

General

Evacuate personnel to safe location

Personal Precautions

Wear respiratory protection. Avoid dust formation and breathing vapors/mist/dust/gas.

Ensure adequate ventilation

Environmental Precautions

Prevent spillage, do not let product enter drains

Methods of Containment and Cleanup Place in suitable, closed containers for licensed disposal. Avoid dust formation

7. HANDLING AND STORAGE

Precautions for Safe Handling Avoid contact with skin and eyes. Provide exhaust ventilation in areas where dust is formed

Precautions for Safe Storage Keep container tightly closed and in a dry, well-ventilated place. Recommended storage temperature: -20°C. Hygroscopic.

Incompatibilities None known

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Contains no substances with occupational exposure limit values

PPE: Respiratory protection Where risk assessment shows air-purifying respirators are appropriate, use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU)

PPE: Hand Protection Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal techniques to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices, and wash and dry hands

PPE: Eye Protection Use a face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU)

PPE: Skin and Body Protection When deemed needed according to the concentration and amount of this product, use a complete body suit

9. PHYSICAL/CHEMICAL PROPERTIES

Appearance Off-white powder

pH No data available

Melting Point/Freezing Point 130-135°C

Boiling Point No data available

Flash Point No data available

Ignition Temperature No data available

Autoignition Temperature No data available

Lower Explosion Limit	No data available
Upper Explosion Limit	No data available
Vapor Pressure	No data available
Density	No data available
Water Solubility	Freely soluble
Solubility in Other Solvents	Methanol: freely soluble DMSO: freely soluble Ethanol: freely soluble
Partition Coefficient: n-octanol/water	No data available
Relative vapor density	No data available
Odor	No data available
Odor Threshold	No data available
Evaporation Rate	No data available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended storage conditions
Possibility of Hazardous Reactions	No data available
Conditions to Avoid	Moisture
Materials to Avoid	Strong oxidizing agents
Hazardous Decomposition Products	Carbon and Nitrogen oxides formed under fire conditions

11. TOXICOLOGICAL INFORMATION

Oral LD ₅₀	Mouse: 20,000 mg/kg
Inhalation LC ₅₀	Rat: >5,000 mg/kg
Dermal LD ₅₀	No data available
Intraperitoneal LD ₅₀	Rat: 10,000 mg/kg
Intraperitoneal LD ₅₀	No data available
Intravenous LD ₅₀	Mouse: >13,000 mg/kg Rat: 7,200 mg/kg
Skin Corrosion/Irritation	No data available
Serious Eye Damage/ Eye Irritation	No data available
Respiratory or Skin Sensitization	No data available
Germ Cell Mutagenicity	No data available
Carcinogenicity	No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible, or confirmed human carcinogen by IARC, ACGIH, NTP, or OSHA
Reproductive Toxicity	No data available
Teratogenicity	No data available
Specific Target Organ Toxicity: Single Exposure (Globally Harmonized System)	No data available
Specific Target Organ Toxicity: Repeated Exposure (Globally Harmonized System)	No data available
Aspiration Hazard	No data available
Potential Health Effects	See Section 2, Hazard(s) Identification

Signs and Symptoms of Exposure	Aminoglycosides are associated with significant nephrotoxicity and ototoxicity
Synergistic Effects	No data available
Additional Information	RTECS: LX8920000

12. ECOLOGICAL INFORMATION

Toxicity	LC ₅₀ (96h) carp: 10mg/L
Persistence and Degradability	Undergoes rapid microbial degradation in soil Half-life is under 5 hours
Bioaccumulative Potential	No data available
Mobility in Soil	No data available
PBT and vPvB Assessment	No data available
Treat as if harmful if released into environment	

13. DISPOSAL CONSIDERATIONS

Product	Dispose of product through a licensed disposal company
Contaminated Packaging	Dispose of as unused product

14. TRANSPORTATION INFORMATION

DOT (US)	Not Dangerous Goods
IMDG	Not Dangerous Goods
IATA	Not Dangerous Goods

15. REGULATORY INFORMATION

OSHA Hazards	None
SARA 302 Components	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302
SARA 313 Components	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313
SARA 311/312 Hazards	None
Massachusetts Right to Know Components	No components are subject to the Massachusetts Right to Know Act
Pennsylvania Right to Know Components	No components are subject to the Pennsylvania Right to Know Act
New Jersey Right to Know Components	No components are subject to the New Jersey Right to Know Act
California Prop. 65 Components	This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm
Canada Information	Identifier: [100986-85-4] This substance is not specified on any list. There is no control measure imposed on this substance

EU Information

SDS in accordance with REACH 1907/2006
ECHA Pre-Registered Substance
EC List Number [609-372-4]
CAS-Number [37248-47-8]
Name: D-chiro-Inositol, 1,5,6-trideoxy-4-O- β -D-
glucopyranosyl-5-(hydroxymethyl)-1-
[[[(1S,4R,5S,6S)-4,5,6-trihydroxy-3-
(hydroxymethyl)-2-cyclohexen-1-yl]amino]-
Synonym: Validamycin
Envisaged Registration Deadline: 31/05/2018
See GHS Information under Section 2, Hazard
Identification

16. OTHER INFORMATION

Date of last revision: 2016-04-29

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. TOKU-E Company shall not be held liable for any damage resulting from handling or from contact with the above product. Please see reverse side of invoice or packing slip for additional terms and conditions of sale.