1. IDENTIFICATION

Product Identifier	Magainin II
Product Number	M074
Distributor Name	TOKU-E Company
Distributor Address	715 W Orchard Dr. Suite 3 Bellingham, WA 98225
Phone Number	(360)734-1789
Emergency Phone Number (International)	+1 (352) 353-3500
Emergency Phone Number (US Only)	1 (800) 535-5053
Safety Data Sheet Issued by	TOKU-E USA
CAS-Number	[108433-95-0]
EC/ REACH Number	No Data Available
Recommended Use	Natural product antimicrobial research drug.
Restrictions of Use	Not for human or animal use

2. HAZARD(S) IDENTIFICATION

GHS Classification	Not classified. Toxicology information unavailable.
GHS Label Elements, Including	None
Hazard Statements	None
Precautionary Statements	None
Hazards not otherwise classified (HNOC) by GHS	None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonym(s)	Magainin 2
Formula	$C_{114}H_{180}N_{30}O_{29}S$
Molecular Weight	2466.9
CAS-Number	[108433-95-0]
EC/ REACH Number	No Data Available
Hazardous Components	No Data Available

4. FIRST-AID MEASURES

General Advice	Consult a doctor/physician if exposed - additional medical care may be required. Show this Safety Data Sheet to the medical provider.
If Inhaled	If inhaled, move to fresh air. If not breathing, give artificial respiration and immediately call local emergency telephone number.
In Case of Skin Contact	Wash skin thoroughly with soap and water.
In Case of Eye Contact	Flush eye with water. After initial flush, remove any contact lenses and continue flushing for at least 15 minutes.
If Swallowed	Rinse mouth with water. Immediately call a doctor, physician, or poison control center. Never give

	anything by mouth to an unconscious person.
Specific Treatment	Please see Section 2 precautionary statements and/or Section 11.

5. FIRE-FIGHTING MEASURES

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, carbon monoxide, sulfur dioxide, hydrogen peroxide

6. ACCIDENTAL RELEASE MEASURES

General	Evacuate personnel to a safe location. Use appropriate personal protective equipment while in contact with product. Avoid dust formation. Ensure adequate ventilation.
Personal Precautions	Prevent contamination of skin, eyes and clothing with appropriate protective equipment (Section 8). Wear respiratory protection.
Environmental Precautions	Recover waste, if possible, and place in suitable closed container for licensed disposal. Prevent spillage - do not let product enter drains.

7. HANDLING AND STORAGE

Precautions for Safe Handling	Wear appropriate protective clothing/gear to prevent contact with skin and eyes. Provide exhaust ventilation or respiratory protection in areas where dust is formed.
Precautions for Safe Storage	Store in a tightly closed container. Protect from humidity. Recommended storage temperature: <30°C
Incompatibilities	Avoid strong acids and strong bases.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Contains no substance/substances with occupational exposure limit values

OSHA Permissible Exposure Limits	No Data Available
NIOSH Recommended Exposure Limits	No Data Available
ACGIH Threshold Limit Values	No Data Available

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	Handle with gloves. Wear protective clothing. Choose body protection according to the amount and concentration of the dangerous substance at the work place. When deemed needed according to the concentration and amount of this product, use a complete body suit

9. PHYSICAL/CHEMICAL PROPERTIES

Appearance	Powder
Lower Flammability/Explosion Limit	No Data Available
Upper Flammability/Explosion Limit	No Data Available
Odor	No Data Available
Vapor Pressure	No Data Available
Odor Threshold	No Data Available
Vapor Density	No Data Available
pH	No Data Available
Relative Density	No Data Available
Melting Point/Freezing Point	No Data Available
Water Solubility	No Data Available
Solubility in Other Solvents	No Data Available
Boiling Point and Range	No Data Available
Flash Point	No Data Available
Evaporation rate	No Data Available
Flammability (solid, gas)	No Data Available
Partition Coefficient: n-octanol/water	No Data Available
Ignition Temperature	No Data Available
Auto-Ignition Temperature	No Data Available
Decomposition Temperature	No Data Available
Viscosity	No Data Available
Density	No Data Available
Optical Rotation	No Data Available
Absorbance (290nm, 5% in H_2O)	No Data Available
Water Content (Loss on Drying)	No Data Available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended storage conditions
Possibility of Hazardous Reactions	No Data Available

Conditions to Avoid	No Data Available
Materials to Avoid	Strong oxidizing agents, strong acids, strong bases
Hazardous Decomposition Products	Formed under fire conditions: carbon and nitrogen oxides, carbon monoxide, sulfur dioxide, hydrogen peroxide

11. TOXICOLOGICAL INFORMATION

Oral LD_{50}	No Data Available
Inhalation LC_{50}	No Data Available
Dermal LD_{50}	No Data Available
Intraperitoneal LD_{50}	No Data Available
Intravenous LD_{50}	No Data Available
Subcutaneous LD_{50}	No Data Available
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	This substance has not been identified as a potential carcinogen within the National Toxicology Program Report on Carcinogens or within the International Agency for Research on Cancer Monograph.
Reproductive Toxicity	No Data Available
Specific Target Organ Toxicity: Single Exposure (GHS)	No Data Available
Specific Target Organ Toxicity: Repeated Exposure (GHS)	No Data Available
Aspiration Hazard	No Data Available
Potential Heath Effects	See Section 2, Hazard(s) Identification
Signs and Symptoms of Exposure	To the best of our knowledge, the chemical, physical, and toxicological properties of this material have not been thoroughly investigated
Synergistic Effects	No Data Available
Additional Information	No Data Available

12. ECOLOGICAL INFORMATION

Toxicity	No Data Available
Persistence and Degradability	No Data Available
Bio accumulative Potential	No Data Available
Mobility in Soil	No Data Available
PBT and vPvB Assessment	No Data Available

In the absence of complete ecological information, treat product as environmentally hazardous. Use proper storage, handling, and disposal to prevent unintentional release into the environment.

13. DISPOSAL CONCENTRATIONS

Product	Dispose of product through a licensed disposal company.

Contaminated Packaging	Dispose of as unused product.

14. TRANSPORTATION INFORMATION

DOT (US)	Not a Dangerous Good
IMDG	Not a Dangerous Good
IATA	Not a Dangerous Good

15. REGULATORY INFORMATION

SARA 302 Components	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 313.
SARA 311/312 Hazards	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 311/312
Massachusetts Right to Know	No components are subject to the Massachusetts Right to Know Act
Pennsylvania Right to Know	No components are subject to the Pennsylvania Right to Know Act
New Jersey Right to Know	No components are subject to the New Jersey Right to Know Act
California Prop. 65 Components	No This product does not contain any chemicals known to the State of California to cause birth defects, cancer, or any other reproductive harm
EU Information	SDS in accordance with REACH 1907/2006 EC/ REACH Number No Data Available CAS-Number [108433-95-0] Name: Magainin II Envisaged Registration Deadline: No Data Available See GHS Information under Section 2, Hazard Identification

16. OTHER INFORMATION

Revision Date: 2017-04-20

HMIS Rating	Health Hazard 0
	Chronic Health Hazard N
	Flammability 0
	Physical Hazard 0
NFPA Rating	Health Hazard 0
	Fire Hazard 0

Reactivity Hazard 0

This safety data sheet represents TOKU-E Company’s current understanding of the hazards associated with this product. The stated hazard information is based on existing experimental data and is not guaranteed to be all-inclusive. TOKU-E Company strives to maintain current and comprehensive safety information but recognizes that this safety data sheet may require revision as new information becomes available. TOKU-E Company shall not be held liable for damage or injury resulting from contact, handling, or storage of this product.