

## **SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

### **1.1 Product identifier**

Product Identifier : Spinosyn A  
Product Number : S084, S114  
CAS Number : [131929-60-7]  
EC Number : [620-162-1]  
REACH Registration Number : A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration, or the registration is envisaged for a later registration deadline.

### **1.2 Relevant identified uses of the substance or mixture and uses advised against**

Identified Uses : For research use only - restricted to professional users.  
Uses Advised Against : Not for human or animal use

### **1.3 Details of the supplier of the safety data sheet**

Company : TOKU-E Company  
715 W Orchard Dr. Suite 3  
Bellingham, WA 98225  
Phone Number : (360) 734-1789  
E-mail Address : info@toku-e.com  
Safety Data Sheet Issued by : TOKU-E Company (USA)

### **1.4 Emergency telephone number**

Emergency Phone Number (Internat.) : +1 (352) 353-3500 (INFOTRAC, 24-Hour Number)  
Emergency Phone Number (US Only) : 1 (800) 535-5053 (INFOTRAC, 24-Hour Number)

## **SECTION 2: HAZARDS IDENTIFICATION**

### **2.1 Classification of the substance or mixture**

**Classification according to Regulation (EC) No. 1272/2008**  
Hazardous to the Aquatic Environment - Acute (Category 1), H400  
Hazardous to the Aquatic Environment - Chronic (Category 1), H410

For the full text of the H-Statements mentioned in this section, see Section 16.

### **2.2 Label elements**

**Labelling according to Regulation (EC) No. 1272/2008**

**Hazard Pictogram(s):**



**Signal Word:** Warning

**Hazard Statement(s)**

H400 Very toxic to aquatic life  
H410 Very toxic to aquatic life with long lasting effects

**Precautionary Statement(s)**

P273 Avoid release to the environment.  
P391 Collect spillage.  
P501 Dispose of contents/container in accordance with governmental regulation

**Supplemental Hazard Information**

No data available

**2.3 Other hazards**

No data available

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.1 Substances**

Synonym(s) : Lepicidin A; Spinosad A; A 83543A; LY 232105  
Formula : C<sub>41</sub>H<sub>65</sub>NO<sub>10</sub>  
Molecular weight : 731.97 g/mol

**Hazardous ingredients according to Regulation (EC) No. 1272/2008**

Component	Classification	Concentration
<b>Spinosyn A</b>		
CAS Number [131929-60-7]	Aquatic Acute 1, H400	≤ 100%
EC Number [620-162-1]	Aquatic Chronic 1, H410	

For the full text of the H-Statements mentioned in this section, see Section 16.

**SECTION 4: FIRST-AID MEASURES****4.1 Description of first-aid measures****General information**

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. Consult a physician.

**In case of skin contact**

Wash skin thoroughly with soap and water. Remove any contaminated clothing. Consult a physician.

**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.

**Self-protection of the first aider**

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent the spread of contamination.

**4.2 Most important symptoms/effects, acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

**4.3 Indication of any immediate medical attention and special treatment needed**

No data available

## **SECTION 5: FIRE-FIGHTING MEASURES**

### **5.1 Extinguishing media**

#### **Suitable extinguishing media**

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

#### **Unsuitable extinguishing media**

No data available

### **5.2 Special hazards arising from the substance or mixture**

#### **Hazardous Combustion Products**

Carbon and nitrogen oxides

### **5.3 Advice for firefighters**

Wear self-contained breathing apparatus if necessary.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

### **6.1 Personal precautions, protective equipment and emergency procedures**

Consult the safety measures listed in Section 7 and 8. Use personal protective equipment. Avoid breathing dust, vapors, mist or gas. Avoid direct contact with spilled substances. Ensure adequate ventilation. Avoid dust formation. For personal protection see Section 8.

### **6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

### **6.3 Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### **6.4 Reference to other sections**

Refer to section 8 for exposure control and personal protection. Refer to section 13 for disposal information.

## **SECTION 7: HANDLING AND STORAGE**

### **7.1 Precautions for safe handling**

Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Avoid contact with skin and eyes. For precautionary statements see section 2.2

### **7.2 Conditions for safe storage, including any incompatibilities**

Keep container tightly closed in a dry and well-ventilated place. Protect from humidity. Recommended storage temperature: -20 °C

#### **Incompatibilities:**

Strong oxidizing agents

### **7.3 Specific end use(s)**

Refer to section 1.2

## **SECTION 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION**

### **8.1 Control parameters**

#### **Components with workplace control parameters:**

No OEL data available

## 8.2 Exposure controls

### Appropriate engineering controls:

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling this product.

### Personal Protective Equipment (PPE):

#### Respiratory protection

Wear respiratory protection. Use type N95 (US) or type P1 (EN 143) dust masks as a backup to engineering controls. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Skin 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. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the selected EN 374 derived from it.

#### Eye/Face protection

Wear eye protection. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

#### Body protection

Wear protective clothing. The type of protective equipment must be selected according to the concentration of the dangerous substance at the specific work place.

#### Environmental exposure controls

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance	:	White solid
Odor	:	No data available
Odor Threshold	:	No data available
pH	:	No data available
Melting Point/Freezing Point	:	No data available
Initial Boiling Point and Range	:	No data available
Flash Point	:	No data available
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper/Lower Flammability or Explosive Limits	:	No data available
Vapour Pressure	:	No data available
Vapour Density	:	No data available
Relative Density	:	No data available
Solubility(ies)	:	Limited water solubility. Soluble in ethanol, methanol, DMF or DMSO
Partition Coefficient: n-octanol/water	:	No data available
Auto-Ignition Temperature	:	No data available
Decomposition Temperature	:	No data available
Viscosity	:	No data available
Explosive Properties	:	No data available
Oxidising Properties	:	No data available

### 9.2 Other information

No additional information relevant to safe use of the substance.

## **SECTION 10: STABILITY AND REACTIVITY**

### **10.1 Reactivity**

No data available

### **10.2 Chemical stability**

Stable under recommended storage conditions

### **10.3 Possibility of hazardous reactions**

No data available

### **10.4 Conditions to avoid**

No data available

### **10.5 Incompatible materials**

Strong oxidizing agents

### **10.6 Hazardous decomposition products**

No data available

See Section 5 for hazardous combustion products.

## **SECTION 11. TOXICOLOGICAL INFORMATION**

### **11.1 Information on toxicological effects**

#### **Acute Toxicity**

Oral LD<sub>50</sub> : Rat: 3738 mg/kg  
Inhalation LC<sub>50</sub> : Rat: > 5.18 mg/L  
Dermal LD<sub>50</sub> : Rabbit: > 2000 mg/kg

#### **Skin Corrosion/Irritation**

No data available

#### **Serious Eye Damage/ Eye Irritation**

No data available

#### **Respiratory or Skin Sensitisation**

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 probable, possible, or confirmed human carcinogen by the International Agency for Research on Cancer Monograph.

#### **Reproductive Toxicity**

No data available

#### **Specific Target Organ Toxicity: Single Exposure**

No data available

#### **Specific Target Organ Toxicity: Repeated Exposure**

No data available

#### **Aspiration Hazard**

No data available

**Additional Information**

RTECS # NK3579400

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**SECTION 12: ECOLOGICAL INFORMATION****12.1 Toxicity**

Toxicity to daphnia and other aquatic invertebrates LC50 - Daphnia magna (water flea) - 14.0 ppm

**12.2 Persistence and degradability**

No data available

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available

**12.5 Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

**12.6 Other adverse effects**

Very toxic to aquatic life with long lasting effects

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.

**SECTION 13: DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods****Product**

Offer surplus and non-recyclable products to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Avoid disposal of material in drains or sewers. Waste material must be disposed of in accordance with the Directive on Waste 2008/98/EC as well as other national and local regulations.

**Contaminated Packaging**

Dispose of as unused product.

**SECTION 14: TRANSPORT INFORMATION**

		<b>ADR/RID</b>	<b>IMDG</b>	<b>IATA</b>
14.1	<b>UN Number</b>	3077	3077	3077
14.2	<b>UN Proper Shipping Name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Spinosyn A)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Spinosyn A)	Environmentally hazardous substance, solid, n.o.s. (Spinosyn A)
14.3	<b>Transport Hazard Class(es)</b>	9	9	9
14.4	<b>Packing Group</b>	III	III	III
14.5	<b>Environmental Hazards</b>	Yes	Marine Pollutant: Yes	Yes

## 14.6 Special precautions for user

### Further Information

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.

## 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

## SECTION 15: REGULATORY INFORMATION

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

### Authorizations and/or restrictions on use

Restricted to professional users.

### 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

## SECTION 16: OTHER INFORMATION

### Full text of H-Statements referred to under sections 2 and 3

H400 Very toxic to aquatic life

H410 Very toxic to aquatic life with long lasting effects

### Abbreviations and acronyms

ADR/RID: European Agreements Concerning the International Carriage of Dangerous Goods by Road (ADR) and Rail (RID)

CAS No: Chemical Abstracts Service number

EC: European Commission

EC No: European Commission number

EHS: Environmentally Hazardous Substance

EU: European Union

H-Statement: Hazard Statement

IARC: International Agency for Research on Cancer

IATA: International Air Transport Association

IBC: International Bulk Chemical

IMDG: International Maritime Dangerous Goods Code

LC50: Lethal concentration, 50%

LD50: Median Lethal dose

MARPOL 73/78: International Convention for the Prevention of Pollution from Ships

NIOSH: National Institute for Occupation Safety and Health

OEL: Occupational Exposure Limit

PBT: Persistent, Bioaccumulative and Toxic

REACH: Registration, Evaluation, Authorisation and restrictions of Chemicals

RTECS: Registry of Toxic Effects of Chemical Substances

SDS: Safety Data Sheet

UN: United Nations

vPvB: Very Persistent and Very Bioaccumulative

### Further information

Revision Date: 2019-03-04

The above information is based upon the present state of our knowledge and is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information is believed to be correct but does not purport to be all inclusive. It does not represent any guarantees of the properties of the product. TOKU-E Company shall not be held liable for damage or injury resulting from contact, handling, or storage of the above product.