

Revision date: 22-Oct-2014 Version: 4.0 Page 1 of 15

## **IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING**

**Product Identifier** 

Material Name: Sirolimus Tablets (Greenstone LLC)

**Trade Name:** Not applicable Sirolimus tablets Synonyms: **Chemical Family:** Macrocyclic lactone

Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Intended Use: Pharmaceutical product used as immunosuppressive agent

Details of the Supplier of the Safety Data Sheet

**Greenstone LLC** 100 Route 206 North Peapack, NJ 07977 800-435-7095

**Emergency telephone number:** CHEMTREC (24 hours): 1-800-424-9300

## 2. HAZARDS IDENTIFICATION

## Classification of the Substance or Mixture

**GHS - Classification** 

Reproductive Toxicity: Category 1B

**EU Classification:** 

EU Indication of danger: Toxic to Reproduction: Category 2

EU Risk Phrases:

R60 - May impair fertility.

R61 - May cause harm to the unborn child.

**Label Elements** 

Signal Word: Danger

H360FD - May damage fertility. May damage the unborn child. **Hazard Statements:** 

**Precautionary Statements:** P201 - Obtain special instructions before use

P202 - Do not handle until all safety precautions have been read and understood

P281 - Use personal protective equipment as required

P308 + P313 - IF exposed or concerned: Get medical attention/advice

P405 - Store locked up

P501 - Dispose of contents/container in accordance with all local and national regulations



#### Other Hazards

Material Name: Sirolimus Tablets (Greenstone LLC)

Revision date: 22-Oct-2014 Version: 4.0

**Australian Hazard Classification** 

(NOHSC):

Hazardous Substance. Non-Dangerous Goods.

Note:

This document has been prepared in accordance with standards for workplace safety, which requires the inclusion of all known hazards of the product or its ingredients regardless of the potential risk. The precautionary statements and warning included may not apply in all cases. Your needs may vary depending upon the potential for exposure in your workplace.

Page 2 of 15

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### **Hazardous**

Ingredient	CAS Number	EU	<b>EU Classification</b>	GHS	%
		EINECS/ELINCS		Classification	
		List			
Calcium sulfate	7778-18-9	231-900-3	Not Listed	Not Listed	*
Ferric oxide red	1309-37-1	215-168-2	Not Listed	Not Listed	*
Lactose NF, monohydrate	64044-51-5	Not Listed	Not Listed	Not Listed	*
Magnesium stearate	557-04-0	209-150-3	Not Listed	Not Listed	*
Microcrystalline cellulose	9004-34-6	232-674-9	Not Listed	Not Listed	*
Polyethylene glycol	25322-68-3	Not Listed	Not Listed	Not Listed	*
Sirolimus	53123-88-9	Not Listed	Repr.Cat.2; R60-61	Repr.1B (H360FD)	0.1-0.6
			N; R50/53	Aquatic Acute 1	
				(H400)	
				Aquatic Chronic 1	
				(H410)	
Sucrose	57-50-1	200-334-9	Not Listed	Not Listed	*
Talc (non-asbestiform)	14807-96-6	238-877-9	Not Listed	Not Listed	*
Titanium dioxide	13463-67-7	236-675-5	Not Listed	Not Listed	*

Ingredient	CAS Number	EU	EU Classification	GHS	%
		EINECS/ELINCS		Classification	
		List			
Black Iron Oxide	1317-61-9	215-277-5	Not Listed	Not Listed	*
Carnauba wax	8015-86-9	232-399-4	Not Listed	Not Listed	*
DL-Alpha tocopherol	10191-41-0	233-466-0	Not Listed	Not Listed	*
ETHYLENE OXIDE/PROPYLENE	9003-11-6	Not Listed	Not Listed	Not Listed	*
OXIDE COPOLYMER					
Ferric oxide yellow	51274-00-1	257-098-5	Not Listed	Not Listed	*
Glyceryl monooleate	25496-72-4	247-038-6	Not Listed	Not Listed	*
Pharmaceutical glaze	Not assigned	Not Listed	Not Listed	Not Listed	*
Povidone	9003-39-8	Not Listed	Not Listed	Not Listed	*

Additional Information: \* Proprietary

Ingredient(s) indicated as hazardous have been assessed under standards for workplace

safety.

In accordance with 29 CFR 1910.1200, the exact percentage composition of this mixture has

been withheld as a trade secret.

For the full text of the R phrases and CLP/GHS abbreviations mentioned in this Section, see Section 16

## 4. FIRST AID MEASURES

## Description of First Aid Measures Eye Contact:

Flush with water while holding eyelids open for at least 15 minutes. Seek medical attention

immediately.

Material Name: Sirolimus Tablets (Greenstone LLC) Page 3 of 15 Revision date: 22-Oct-2014 Version: 4.0

Skin Contact: Remove contaminated clothing. Flush area with large amounts of water. Use soap. Seek

medical attention.

Ingestion: Never give anything by mouth to an unconscious person. Wash out mouth with water. Do not

induce vomiting unless directed by medical personnel. Seek medical attention immediately.

Inhalation: Remove to fresh air and keep patient at rest. Seek medical attention immediately.

Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms and Effects of For information on potential signs and symptoms of exposure, See Section 2 - Hazards

**Exposure:** Identification and/or Section 11 - Toxicological Information.

**Medical Conditions** 

Aggravated by Exposure:

Indication of the Immediate Medical Attention and Special Treatment Needed

Notes to Physician:

## 5. FIRE FIGHTING MEASURES

Fire / Explosion Hazards:

Extinguish fires with CO2, extinguishing powder, foam, or water. **Extinguishing Media:** 

Special Hazards Arising from the Substance or Mixture

**Hazardous Combustion** Formation of toxic gases is possible during heating or fire.

**Products:** 

Fine particles (such as dust and mists) may fuel fires/explosions.

Advice for Fire-Fighters

During all fire fighting activities, wear appropriate protective equipment, including self-contained breathing apparatus.

## 6. ACCIDENTAL RELEASE MEASURES

#### Personal Precautions, Protective Equipment and Emergency Procedures

Personnel involved in clean-up should wear appropriate personal protective equipment (see Section 8). Minimize exposure.

#### **Environmental Precautions**

Place waste in an appropriately labeled, sealed container for disposal. Care should be taken to avoid environmental release.

#### Methods and Material for Containment and Cleaning Up

Measures for Cleaning /

Collecting:

Contain the source of spill if it is safe to do so. Collect spilled material by a method that controls dust generation. A damp cloth or a filtered vacuum should be used to clean spills of

dry solids. Clean spill area thoroughly.

Additional Consideration for

Large Spills:

Non-essential personnel should be evacuated from affected area. Report emergency situations immediately. Clean up operations should only be undertaken by trained personnel.

### HANDLING AND STORAGE

### **Precautions for Safe Handling**

Minimize dust generation and accumulation. If tablets or capsules are crushed and/or broken, avoid breathing dust and avoid contact with eyes, skin, and clothing. When handling, use appropriate personal protective equipment (see Section 8). Wash thoroughly after handling. Refer to Section 12 - Ecological Information, for information on potential effects on the environment. Releases to the environment should be avoided. Review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure or environmental releases. Potential points of process emissions of this material to the atmosphere should be controlled with dust collectors, HEPA filtration systems or other equivalent controls.

#### Conditions for Safe Storage, Including any Incompatibilities

Material Name: Sirolimus Tablets (Greenstone LLC) Page 4 of 15 Revision date: 22-Oct-2014 Version: 4.0

Storage Conditions: Specific end use(s): Store as directed by product packaging. Pharmaceutical drug product

10 mg/m<sup>3</sup>

Page 5 of 15

Material Name: Sirolimus Tablets (Greenstone LLC)

**ACGIH Threshold Limit Value (TWA)** 

Revision date: 22-Oct-2014 Version: 4.0

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### **Control Parameters**

Refer to available public information for specific member state Occupational Exposure Limits.

### Calcium sulfate

Australia TWA	10 mg/m <sup>3</sup>
Austria OEL - MAKs	5 mg/m <sup>3</sup>
Belgium OEL - TWA	10 mg/m <sup>3</sup>
Bulgaria OEL - TWA	10.0 mg/m <sup>3</sup>
France OEL - TWA	10 mg/m <sup>3</sup>
Germany - TRGS 900 - TWAs	6 mg/m <sup>3</sup>
Germany (DFG) - MAK	1.5 mg/m <sup>3</sup>
	4 mg/m³
Hungary OEL - TWA	6 mg/m <sup>3</sup>
Ireland OEL - TWAs	10 mg/m <sup>3</sup>
Latvia OEL - TWA	4 mg/m <sup>3</sup>
OSHA - Final PELS - TWAs:	15 mg/m <sup>3</sup>
Portugal OEL - TWA	10 mg/m <sup>3</sup>
Slovakia OEL - TWA	6 mg/m <sup>3</sup>
Slovenia OEL - TWA	6 mg/m <sup>3</sup>
Spain OEL - TWA	10 mg/m <sup>3</sup>

## **Ferric**

c oxide red	
ACGIH Threshold Limit Value (TWA)	5 mg/m <sup>3</sup>
Australia TWA	5 mg/m <sup>3</sup>
	10 mg/m <sup>3</sup>
Austria OEL - MAKs	5 mg/m <sup>3</sup>
	10 mg/m <sup>3</sup>
Belgium OEL - TWA	2 ppm
	5 mg/m <sup>3</sup>
Bulgaria OEL - TWA	5.0 mg/m <sup>3</sup>
Denmark OEL - TWA	3.5 mg/m <sup>3</sup>
Estonia OEL - TWA	3.5 mg/m <sup>3</sup>
Finland OEL - TWA	5 mg/m <sup>3</sup>
France OEL - TWA	5 mg/m <sup>3</sup>
Greece OEL - TWA	10 mg/m <sup>3</sup>
Hungary OEL - TWA	6 mg/m <sup>3</sup>
Ireland OEL - TWAs	5 mg/m <sup>3</sup>
	10 mg/m <sup>3</sup>
	4 mg/m <sup>3</sup>
Lithuania OEL - TWA	3.5 mg/m <sup>3</sup>
OSHA - Final PELS - TWAs:	10 mg/m <sup>3</sup>
Delevid OFL TWA	15 mg/m <sup>3</sup>
Poland OEL - TWA	5 mg/m <sup>3</sup>
Portugal OEL - TWA	5 mg/m <sup>3</sup>
Romania OEL - TWA	5 mg/m <sup>3</sup>
Slovakia OEL - TWA	1.5 mg/m <sup>3</sup>
Spain OEL - TWA	5 mg/m <sup>3</sup>
Sweden OEL - TWAs	3.5 mg/m <sup>3</sup>

## Magnesium stearate

**ACGIH Threshold Limit Value (TWA)** 10 mg/m<sup>3</sup>

Material Name: Sirolimus Tablets (Greenstone LLC)

Page 6 of 15

Revision date: 22-Oct-2014 Version: 4.0

Lithuania OEL - TWA Sweden OEL - TWAs	5 mg/m³ 5 mg/m³
Microcrystalline cellulose	-
ACGIH Threshold Limit Value (TWA)	10 mg/m <sup>3</sup>
Australia TWA	10 mg/m <sup>3</sup>
Belgium OEL - TWA	10 mg/m <sup>3</sup>
Estonia OEL - TWA	10 mg/m <sup>3</sup>
France OEL - TWA	10 mg/m <sup>3</sup>
Ireland OEL - TWAs	10 mg/m <sup>3</sup>
	4 mg/m <sup>3</sup>
Latvia OEL - TWA	2 mg/m <sup>3</sup>
OSHA - Final PELS - TWAs:	15 mg/m <sup>3</sup>
Portugal OEL - TWA	10 mg/m³
Romania OEL - TWA	10 mg/m³
Spain OEL - TWA	10 mg/m <sup>3</sup>
Polyethylene glycol	
Austria OEL - MAKs	1000 mg/m <sup>3</sup>
Germany - TRGS 900 - TWAs	1000 mg/m <sup>3</sup>
Germany (DFG) - MAK	1000 mg/m³ average molecular weight 200-600
Slovakia OEL - TWA	1000 mg/m <sup>3</sup>
Slovenia OEL - TWA	1000 mg/m <sup>3</sup>
Sirolimus	
Manufacturer OEL:	0.2ug/m³
Sucrose	

**ACGIH Threshold Limit Value (TWA)** 10 mg/m<sup>3</sup> 10 mg/m<sup>3</sup> **Australia TWA** 10 mg/m<sup>3</sup> **Belgium OEL - TWA Bulgaria OEL - TWA** 10.0 mg/m<sup>3</sup> 10 mg/m<sup>3</sup> **Estonia OEL - TWA** 10 mg/m<sup>3</sup> France OEL - TWA **Ireland OEL - TWAs** 10 mg/m<sup>3</sup> 5 mg/m<sup>3</sup> Latvia OEL - TWA 10 mg/m<sup>3</sup> Lithuania OEL - TWA **OSHA - Final PELS - TWAs:** 15 mg/m<sup>3</sup> 10 mg/m<sup>3</sup> Portugal OEL - TWA Slovakia OEL - TWA  $6 \text{ mg/m}^3$ Spain OEL - TWA 10 mg/m<sup>3</sup>

## Talc (non-asbestiform)

**Finland OEL - TWA** 

**ACGIH Threshold Limit Value (TWA)**  $2 \text{ mg/m}^3$ **Australia TWA** 2.5 mg/m<sup>3</sup> Austria OEL - MAKs  $2 \text{ mg/m}^3$ 2 mg/m<sup>3</sup> **Belgium OEL - TWA** 1.0 fiber/cm3 **Bulgaria OEL - TWA** 6.0 mg/m<sup>3</sup> 3.0 mg/m<sup>3</sup> Czech Republic OEL - TWA 2.0 mg/m<sup>3</sup> **Denmark OEL - TWA** 0.3 fiber/cm3

PZ01976

0.5 fiber/cm3

Material Name: Sirolimus Tablets (Greenstone LLC) Page 7 of 15 Revision date: 22-Oct-2014 Version: 4.0

Greece OEL - TWA	10 mg/m <sup>3</sup> 2 mg/m <sup>3</sup>
Hungary OEL - TWA	2 mg/m <sup>3</sup>
Ireland OEL - TWAs	10 mg/m <sup>3</sup>
	0.8 mg/m <sup>3</sup>
Lithuania OEL - TWA	2 mg/m <sup>3</sup>
	1 mg/m³
Netherlands OEL - TWA	0.25 mg/m <sup>3</sup>
OSHA - Final PELs - Table Z-3 Mineral D:	20 mppcf
Poland OEL - TWA	4.0 mg/m <sup>3</sup>
	1.0 mg/m <sup>3</sup>
Portugal OEL - TWA	2 mg/m <sup>3</sup>
Romania OEL - TWA	2 mg/m <sup>3</sup>
Slovakia OEL - TWA	2 mg/m <sup>3</sup>
	10 mg/m <sup>3</sup>
Slovenia OEL - TWA	2 mg/m <sup>3</sup>
Spain OEL - TWA	2 mg/m <sup>3</sup>
Sweden OEL - TWAs	2 mg/m <sup>3</sup>
	1 mg/m <sup>3</sup>

#### Titanium dioxide

10 mg/m<sup>3</sup> **ACGIH Threshold Limit Value (TWA)** Listed **ACGIH OELs - Notice of Intended Changes Australia TWA** 10 mg/m<sup>3</sup> 5 mg/m<sup>3</sup> **Austria OEL - MAKs** 10 mg/m<sup>3</sup> **Belgium OEL - TWA** 10.0 mg/m<sup>3</sup> **Bulgaria OEL - TWA** 6 mg/m<sup>3</sup> **Denmark OEL - TWA** 5 mg/m<sup>3</sup> **Estonia OEL - TWA** 10 mg/m<sup>3</sup> France OEL - TWA 10 mg/m<sup>3</sup> **Greece OEL - TWA** 5 mg/m<sup>3</sup> 10 mg/m<sup>3</sup> Ireland OEL - TWAs  $4 \text{ mg/m}^3$ 10 mg/m<sup>3</sup> Latvia OEL - TWA Lithuania OEL - TWA  $5 \text{ mg/m}^3$ 

**Exposure Controls** 

**OSHA - Final PELS - TWAs:** 

**Poland OEL - TWA** 

Portugal OEL - TWA

Romania OEL - TWA

**Sweden OEL - TWAs** 

Spain OEL - TWA

**Engineering Controls:** Engineering controls should be used as the primary means to control exposures. General room ventilation is adequate unless the process generates dust, mist or fumes. Keep airborne

15 mg/m<sup>3</sup>

10 mg/m<sup>3</sup> 10 mg/m<sup>3</sup>

10 mg/m<sup>3</sup>

5 mg/m<sup>3</sup>

10.0 mg/m<sup>3</sup>

contamination levels below the exposure limits listed above in this section.

**Personal Protective Equipment:** Refer to applicable national standards and regulations in the selection and use of personal

protective equipment (PPE).

Impervious gloves are recommended if skin contact with drug product is possible and for bulk Hands:

processing operations.

Wear safety glasses or goggles if eye contact is possible. Eyes:

Material Name: Sirolimus Tablets (Greenstone LLC) Page 8 of 15 Revision date: 22-Oct-2014 Version: 4.0

Skin: Impervious protective clothing is recommended if skin contact with drug product is possible and

for bulk processing operations.

If the applicable Occupational Exposure Limit (OEL) is exceeded, wear an appropriate Respiratory protection:

respirator with a protection factor sufficient to control exposures to below the OEL.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Tablet** Tan, White, Yellow to **Physical State:** Color:

Beige

No data available. No data available. **Odor Threshold:** Odor:

**Molecular Formula: Molecular Weight:** Mixture Mixture

No data available **Solvent Solubility:** No data available Water Solubility: No data available. pH: **Melting/Freezing Point (°C):** No data available **Boiling Point (°C):** No data available. Partition Coefficient: (Method, pH, Endpoint, Value)

**DL-Alpha tocopherol** No data available

Lactose NF, monohydrate

No data available

Carnauba wax No data available

ETHYLENE OXIDE/PROPYLENE OXIDE COPOLYMER

No data available Glyceryl monooleate

No data available

Microcrystalline cellulose

No data available

Pharmaceutical glaze

No data available

**Povidone** 

No data available

Talc (non-asbestiform)

No data available

Titanium dioxide

No data available

**Black Iron Oxide** 

No data available

Ferric oxide yellow

No data available

Magnesium stearate

No data available Calcium sulfate

No data available

Sucrose No data available

Polyethylene glycol

No data available

Ferric oxide red

No data available

**Sirolimus** 

Measured Log P >4.63

Material Name: Sirolimus Tablets (Greenstone LLC) Page 9 of 15

Revision date: 22-Oct-2014 Version: 4.0

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Decomposition Temperature (°C):** No data available.

**Evaporation Rate (Gram/s):** No data available Vapor Pressure (kPa): No data available Vapor Density (g/ml): No data available Relative Density: No data available Viscosity: No data available

Flammablity:

Autoignition Temperature (Solid) (°C): No data available Flammability (Solids): No data available Flash Point (Liquid) (°C): No data available **Upper Explosive Limits (Liquid) (% by Vol.):** No data available Lower Explosive Limits (Liquid) (% by Vol.): No data available

## 10. STABILITY AND REACTIVITY

Reactivity: No data available

**Chemical Stability:** Stable under normal conditions of use.

**Possibility of Hazardous Reactions** 

**Oxidizing Properties:** No data available

**Conditions to Avoid:** Fine particles (such as dust and mists) may fuel fires/explosions. **Incompatible Materials:** As a precautionary measure, keep away from strong oxidizers

No data available **Hazardous Decomposition** 

**Products:** 

## 11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

**General Information:** The information included in this section describes the potential hazards of the individual

ingredients.

**Known Clinical Effects:** Adverse effects associated with therapeutic use include hypersensitivity reactions, nausea,

weakness, skin rash, weight loss, inflammation of the mouth (stomatitis), itching sensation (pruritus), decreased red blood cell count (anemia), decreased white blood cells (leukopenia).

Acute Toxicity: (Species, Route, End Point, Dose)

Microcrystalline cellulose

Rat Oral LD50 > 5000 mg/kg Rabbit Dermal LD50 > 2000 mg/kg

Povidone

Oral LD50 100 g/kg Rat

Talc (non-asbestiform)

Oral LD50 > 1600 mg/kg

Titanium dioxide

Rat Oral LD50 > 7500 mg/kg Subcutaneous LD50 50 mg/kg

**Black Iron Oxide** 

Rat Oral LD50 >1000 mg/kg

Material Name: Sirolimus Tablets (Greenstone LLC)

Revision date: 22-Oct-2014

Page 10 of 15

Version: 4.0

## 11. TOXICOLOGICAL INFORMATION

#### Magnesium stearate

Rat Oral LD50 > 2000 mg/kg Rat Inhalation LC50 > 2000 mg/m<sup>3</sup>

#### Sucrose

Rat Oral LD50 29.7 g/kg

#### **Sirolimus**

Mouse Oral LD50 > 2500 mg/kg Rat Oral LD50 > 800mg/kg

Acute Toxicity Comments: A greater than symbol (>) indicates that the toxicity endpoint being tested was not achievable

at the highest dose used in the test.

## Irritation / Sensitization: (Study Type, Species, Severity)

### Microcrystalline cellulose

Skin Irritation Rabbit Non-irritating Eye Irritation Rabbit Non-irritating

### Polyethylene glycol

Eye Irritation Rabbit Mild Skin Irritation Rabbit Mild

## Repeated Dose Toxicity: (Duration, Species, Route, Dose, End Point, Target Organ)

Sirolimus Monkey No route specified 0.05 mg/kg/day NOAEL Lymphoid tissue, Spleen, Thymus, Gastrointestinal System

### Reproduction & Development Toxicity: (Duration, Species, Route, Dose, End Point, Effect(s))

### **Sirolimus**

Reproductive & Fertility Rat No route specified 0.1 mg/kg/day NOAEL Embryotoxicity, Fetotoxicity

### Genetic Toxicity: (Study Type, Cell Type/Organism, Result)

#### Sucrose

Bacterial Mutagenicity (Ames) Salmonella Negative

### **Sirolimus**

In Vitro Bacterial Mutagenicity (Ames) Salmonella , E. coli Negative

In Vitro Chromosome Aberration Chinese Hamster Ovary (CHO) cells Negative

In Vitro Forward Mutation Assay Mouse Lymphoma Negative

In Vivo Micronucleus Mouse Negative

## Carcinogenicity: (Duration, Species, Route, Dose, End Point, Effect(s))

#### **Sirolimus**

86 Week(s) Mouse No route specified 6 mg/kg/day LOAEL Tumors, Lymphatic system 104 Week(s) Rat No route specified 0.2 mg/kg/day LOAEL Male reproductive system, Tumors

Carcinogen Status: See below

\_\_\_\_\_

PZ01976

Material Name: Sirolimus Tablets (Greenstone LLC)

Revision date: 22-Oct-2014

Page 11 of 15

Version: 4.0

10/0/0/14

## 11. TOXICOLOGICAL INFORMATION

**Povidone** 

IARC: Group 3 (Not Classifiable)

Talc (non-asbestiform)

IARC: Group 3 (Not Classifiable)

Titanium dioxide

IARC: Group 2B (Possibly Carcinogenic to Humans)

Ferric oxide red

IARC: Group 3 (Not Classifiable)

## 12. ECOLOGICAL INFORMATION

**Environmental Overview:** The following information is available for the individual ingredients. For information on the

formulated product, see "Data for the Drug Product", below.

**Toxicity:** 

Aquatic Toxicity: (Species, Method, End Point, Duration, Result)

**Sirolimus** 

Pseudokirchneriella subcapitata (Green Alga) OECD EC50 72 Hours 0.063 mg/L

Persistence and Degradability: No data available

**Bio-accumulative Potential:** 

Partition Coefficient: (Method, pH, Endpoint, Value)

**Sirolimus** 

Measured Log P >4.63

Mobility in Soil: No data available

### **Data for the Drug Product**

### **Aquatic Toxicity**

Species	Method	End Point	Duration	Result (mg/l)
Oncorhynchus mykiss (Rainbow	OECD	LC50	96 Hours	>100 mg/L
Trout)				
Daphnia Magna (Water Flea)	ISO	EC50	48 Hours	>100 mg/L
Pseudokirchneriella subcapitata (Green Alga)	ISO	IC50	72 Hours	33.6 mg/L
(Gleen Alga)				

Aquatic Toxicity Comments: A greater than symbol (>) indicates that aquatic toxicity was not observed at the maximum

dose tested.

\_\_\_\_\_

Material Name: Sirolimus Tablets (Greenstone LLC)

Page 12 of 15

Revision date: 22-Oct-2014 Version: 4.0

## 13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods: Dispose of waste in accordance with all applicable laws and regulations. Member State

specific and Community specific provisions must be considered. Considering the relevant known environmental and human health hazards of the material, review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental releases. This may include destructive techniques for waste and wastewater.

### 14. TRANSPORT INFORMATION

The following refers to all modes of transportation unless specified below.

Not regulated for transport under USDOT, EUADR, IATA, or IMDG regulations.

## 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

Canada - WHMIS: Classifications
WHMIS hazard class:

Class D, Division 2, Subdivision A



**Black Iron Oxide** 

CERCLA/SARA 313 Emission reporting

California Proposition 65

Inventory - United States TSCA - Sect. 8(b)

Australia (AICS):

Present

EU EINECS/ELINCS List

Not Listed

Not Listed

Present

215-277-5

Calcium sulfate

CERCLA/SARA 313 Emission reporting

California Proposition 65

Inventory - United States TSCA - Sect. 8(b)

Australia (AICS):

Present

EU EINECS/ELINCS List

Not Listed

Not

Carnauba wax

CERCLA/SARA 313 Emission reporting

California Proposition 65

Inventory - United States TSCA - Sect. 8(b)

Not Listed
Present

Material Name: Sirolimus Tablets (Greenstone LLC)

Revision date: 22-Oct-2014

Page 13 of 15

Version: 4.0

15. REGULATORY INFORMATION	
Australia (AICS):	Present
EU EINECS/ELINCS List	232-399-4
DL-Alpha tocopherol	
CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
• • • • • • • • • • • • • • • • • • •	Present
Inventory - United States TSCA - Sect. 8(b)	
Australia (AICS):	Present
EU EINECS/ELINCS List	233-466-0
ETHYLENE OVIDE/DDODYLENE OVIDE OODOLYMED	
ETHYLENE OXIDE/PROPYLENE OXIDE COPOLYMER	N. alexa. I
CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS/ELINCS List	Not Listed
Ferric oxide red	
CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS/ELINCS List	215-168-2
EO EINEOO/LEINOO EISt	210 100 2
Ferric oxide yellow	
CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
• • • • • • • • • • • • • • • • • • •	
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS/ELINCS List	257-098-5
Glyceryl monooleate	N. alexa. I
CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS/ELINCS List	247-038-6
Lactose NF, monohydrate	
CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Australia (AICS):	Present
REACH - Annex IV - Exemptions from the	Present
obligations of Register:	
EU EINECS/ELINCS List	Not Listed
Magnesium stearate	
CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
	Present
Australia (AICS):	
EU EINECS/ELINCS List	209-150-3

D704070

Material Name: Sirolimus Tablets (Greenstone LLC)

Revision date: 22-Oct-2014

Page 14 of 15

Version: 4.0

## 15. REGULATORY INFORMATION

Microcrystalline cellulose

CERCLA/SARA 313 Emission reporting

California Proposition 65

Inventory - United States TSCA - Sect. 8(b)

Australia (AICS):

Present

Present

REACH - Annex XVII - Restrictions on Certain Use restricted. See item 9[f]. powder

Dangerous Substances:

EU EINECS/ELINCS List 232-674-9

Pharmaceutical glaze

CERCLA/SARA 313 Emission reporting

California Proposition 65

EU EINECS/ELINCS List

Not Listed

Not Listed

Polyethylene glycol

CERCLA/SARA 313 Emission reporting

California Proposition 65

Inventory - United States TSCA - Sect. 8(b)

Australia (AICS):

Standard for the Uniform Scheduling

Schedule 3

for Drugs and Poisons:

EU EINECS/ELINCS List Not Listed

**Povidone** 

CERCLA/SARA 313 Emission reporting

California Proposition 65

Inventory - United States TSCA - Sect. 8(b)

Australia (AICS):

Present

EU EINECS/ELINCS List

Not Listed

**Sirolimus** 

CERCLA/SARA 313 Emission reportingNot ListedCalifornia Proposition 65Not ListedStandard for the Uniform SchedulingSchedule 4

for Drugs and Poisons:

EU EINECS/ELINCS List Not Listed

**Sucrose** 

CERCLA/SARA 313 Emission reporting

California Proposition 65

Inventory - United States TSCA - Sect. 8(b)

Australia (AICS):

REACH - Annex IV - Exemptions from the

Not Listed

Present

Present

obligations of Register:

EU EINECS/ELINCS List 200-334-9

Talc (non-asbestiform)

CERCLA/SARA 313 Emission reporting

California Proposition 65

Inventory - United States TSCA - Sect. 8(b)

Australia (AICS):

EU EINECS/ELINCS List

Not Listed

Not Listed

Present

238-877-9

D704070

Material Name: Sirolimus Tablets (Greenstone LLC)

Revision date: 22-Oct-2014

Page 15 of 15

Version: 4.0

Nevision date: 22-Oct-2014 Version: 4.

## 15. REGULATORY INFORMATION

Titanium dioxide

CERCLA/SARA 313 Emission reporting Not Listed

California Proposition 65 carcinogen initial date 9/2/11 airborne, unbound particles of

respirable size

Inventory - United States TSCA - Sect. 8(b)PresentAustralia (AICS):PresentEU EINECS/ELINCS List236-675-5

# **16. OTHER INFORMATION**

### Text of R phrases and GHS Classification abbreviations mentioned in Section 3

Reproductive toxicity-Cat.1B; H360FD - May damage fertility. May damage the unborn child. Hazardous to the aquatic environment, acute toxicity-Cat.1; H400 - Very toxic to aquatic life Hazardous to the aquatic environment, chronic toxicity-Cat.1; H410 - Very toxic to aquatic life with long lasting effects

Toxic to Reproduction: Category 2 N - Dangerous for the environment

R60 - May impair fertility.

R61 - May cause harm to the unborn child.

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Data Sources:** Pfizer proprietary drug development information. Publicly available toxicity information.

Reasons for Revision: Updated Section 2 - Hazard Identification. Updated Section 3 - Composition / Information on

Ingredients.

Revision date: 22-Oct-2014

Product Stewardship Hazard Communication

Prepared by: Global Environment, Health, and Safety Operations

It is believed that the information contained in this Material Safety Data Sheet is accurate, and while it is provided in good faith, it is without a warranty of any kind, expressed or implied. If data for a hazard are not included in this document there is no known information at this time

**End of Safety Data Sheet**