SDS Date: August, 2016

Safety Data Sheet

Per GHS Standard Format

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name: SerpiFlex No. 2451 White

Information on the Supplier of the Safety Data Sheet

Manufactured For: Emergency Telephone Numbers: Fiberlock Technologies, Inc. CHEM TEL: (U.S.): 1-800-255-3924 150 Dascomb Road (Outside the U.S.): 813-248-0585

Andover, MA 01810 Poison Control Center (Medical): 800-222-1222

P: 800-342-3755 F: 978-475-6205

SECTION 2: HAZARDS IDENTIFICATION

Signal Word: WARNING





GHS Label Statements

Hazard Statements:
Harmful if inhaled.
Can cause mild skin irritation.
Causes serious eye irritation.
May cause cancer.

GHS Classifications

This product is considered hazardous by The 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute Toxicity-Inhalation (Vapors) Category 4
Acute Toxicity-Inhalation (Dust-mists) Category 2
Serious eye damage/eye irritation – Category 2
Skin sensitization – Category 1
Carcinogenicity – Category 2

PRECAUTIONARY STATEMENTS

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protection (eye protection, gloves) during application. When grinding/sanding dry films, wear respiratory protection.

Response: If on skin, wash with plenty of soap and water. If in eyes, rinse cautiously for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If inhaled, remove victim to fresh air. If exposed or concerned, get medical advice.

Storage: Keep closures tight and containers upright to prevent leakage. KEEP FROM FREEZING. Product is non-combustible.

Disposal: The coating and any contaminated diking material should be thoroughly air dried and collected into drums. The drums should be sealed and labeled and land-filled or incinerated according to local, regional and national regulations.

Hazards Not Otherwise Classified (NHOC): Not applicable

Other Information: Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

SECTION 3: COMPOSITION INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight, %*
Titanium dioxide	13463-67-7	10-30
Calcium carbonate	1317-65-3	10-30
Ethylene glycol	107-21-1	3-7
Chlorothalonil	1897-45-6	0.1-1
1,2, Benzisothiazolin-3-one	2634-33-5	0.1-1.0

^{*}The exact concentration of composition has been withheld as a trade secret.

SECTION 4: FIRST AID MEASURES

General Advice

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

Eye Contact

If symptoms persist, call a physician. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area.

Skin Contact

Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician. May cause an allergic skin reaction.

Inhalation

Remove to fresh air. If symptoms persist, call a physician. If breathing has stopped, give artificial respiration. Get medical attention immediately. If not breathing, give artificial respiration. Do not breathe dust.

Ingestion

Do NOT induce vomiting. Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Get medical attention.

Self-Protection of the First Aider

Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wear personal protective clothing (see section 8). Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid breathing vapors or mists.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects

Burning sensation. Coughing and/or wheezing. Difficulty in breathing. Itching. Rashes. Hives.

Indication of any immediate medical attention and special treatment needed

Notes to Physician

Treat symptomatically. May cause sensitization of susceptible persons.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media: CAUTION: Use of water spray when fighting fire may be inefficient.

Specific Hazards Arising from the Chemical: Product is/or contains a sensitizer. May cause sensitization by skin contact.

Uniform Fire Code

Sensitizer: Liquid Toxic: Liquid

Hazardous Combustion Products: Carbon oxides

Explosion Data

Sensitivity to mechanical impact No. Sensitivity to static impact No.

Protective Equipment and Precautions for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions: Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Ensure adequate ventilation. Avoid breathing vapors or mists. Avoid generation of dust.

Other Information: Refer to protective measures listed in Sections 7 & 8

Environmental Precautions

Environmental Precautions: Refer to protective measures listed in Sections 7 & 8.

Methods and Material for Containment and Cleaning Up

Methods for Containment: Prevent further leakage or spillage if safe to do so

Methods for Cleaning Up: Immediately place absorbent material in a sealed water-filled metal container to avoid spontaneous combustion of absorbent material contaminated with this product. Pick up and transfer to properly labeled containers.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Handling: Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Avoid breathing vapors or mists. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Take off contaminated clothing and wash before reuse. Keep away from contact with clothing and other combustible materials to avoid fire.

Conditions for Safe Storage, Including any Incompatibilities

Storage: Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children.

Incompatible Products: None known based on information supplied.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name Titanium dioxide 13463-67-7	ACGIH TLV TWA: 10 mg/m ³	OSHA PEL TWA: 15 mg/m³ total dust (vacated) TWA: 10 mg/m³ total dust	NIOSH IDLH IDLH: 5000 mg/m ³
Calcium carbonate 1317-65-3		TWA: 15 mg/m ³ TWA: 5 mg/m ³ (vacated) TWA: 15 mg/m ³ (vacated) TWA: 5 mg/m ³	TWA 5 mg/m³ respirable dust TWA 10 mg/m³ total dust
1,2, Benzisothiazolin 3-one 2634-33-5	None established	None established	None established
Ethylene glycol	TWA: 50 ppm	TWA: 50 ppm (STEL 100 mg/m³)	No data available

ACGIH TLV: American Conference of Governmental Industrial Hygienists – Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration – Permissible Exposure Limits NIOSH IDLH Immediately Dangerous to Life or Health.

Other Exposure Guidelines

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992). See section 15 for national exposure control parameters.

Appropriate Engineering Controls

Engineering Measures: Showers / Eyewash Stations / Ventilation Systems

Individual Protection Measures, such as Personal Protective Equipment

Eye/Face Protection: If splashes are likely to occur, wear safety glasses with side shields (or goggles). None required for consumer use.

Skin and Body Protection: Wear protective gloves and protective clothing

Respiratory Protection: No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety practice. Take off contaminated clothing and wash before reuse. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Viscous liquid Odor: Very Slight

Appearance: White Odor Threshold: No information available

Color: No information available

<u>Property</u>	<u>Values</u>	Remarks/Method
pH	8.5	None known
Melting/freezing point	No data available	None known
Boiling point/boiling range	No data available	None known
Flash Point	No data available	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		
Upper flammability limit	No data available	None known
Lower flammability limit	No data available	None known
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Specific Gravity	No data available	None known
Water Solubility	Miscible in water	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No data available	
Oxidizing properties	No data available	
Other Information		
Softening Point	No data available	
VOC Content (%)	No data available	
Particle size	No data available	
Particle size distribution	No data available	
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SECTION 10: STABILITY AND REACTIVITY

Reactivity

No data available

Conditions to Avoid

Excessive heat

Chemical Stability

Stable under recommended storage conditions

Incompatible Materials

None known based on information supplied

Possibility of Hazardous Reactions

None under normal processing

Hazardous Decomposition Products

Carbon oxides

Hazardous Polymerization

Hazardous polymerization does not occur

SECTION 11: TOXICOLOGICAL INFORMATION

<u>Information on Likely Routes of Exposure</u>

Product Information: Product does not present an acute toxicity hazard based on known or supplied information

Inhalation: Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. Harmful by inhalation (based on components).

Eye Contact: Specific test data for the substance or mixture is not available. Expected to be an irritant based on components. May cause redness, itching, and pain. May cause temporary eye irritation.

Skin Contact: Specific test data for the substance or mixture is not available. May cause irritation. Prolonged contact may cause redness and irritation.

Ingestion: Specific test data for the substance or mixture is not available. Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Titanium dioxide	> 10000 mg/kg (Rat)		
13463-67-7			
Ethylene Glycol 107-21-1	4700 mg/kg (Rat)	No data available	200 mg/m ³ (Rat) 4 hr

Chlorothalonil >10 g/kg (Rabbit) = 310 mg/m³ (Rat) 1 hr

1897-45-6

1,2, Benzisothiazolin-3-one 970 mg/kg (Rat) >5000 mg/kg (Rat) 0.7 mg/L (Rat)

2634-33-5 Female

<u>Information on Toxicological Effects</u>

Symptoms: May cause redness and tearing of the eyes, coughing and/or wheezing, itching, rashes and hives.

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-Term Exposure

Sensitization: May cause sensitization of susceptible persons. May cause sensitization by skin contact.

Mutagenic Effects: No information available

Carcinogenicity: The table below indicates whether each agency has listed any ingredient as a carcinogen

Chemical Name	ACGIH	IARC	NTP	OSHA
Titanium dioxide		Group 2B		X
13463-67-7				
Chlorothalonil		Group 2B		Χ
1897-45-6				

ACGIH (American Conference of Governmental Industrial Hygienists)

A2 – Suspected Human Carcinogen

IARC (International Agency for Research on Cancer)

Group 2B – Possibly Carcinogenic to Humans

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X-Present

Reproductive Toxicity, STOT Single Exposure, STOT Repeated Exposure: No information available

Chronic Toxicity: Titanium dioxide has been classified by the International Agency for Research on Cancer (IARC) as possibly carcinogenic to humans (Group 2B) by inhalation. Contains a known or suspected carcinogen.

Target Organ Effects: Eyes, respiratory system, skin, gastrointestinal tract (GI) & lungs.

Aspiration Hazard: No information available

Numerical Measures of Toxicity Product Information

The following values are calculated based on chapter 3.1 of the GHS document

_ATEmix (oral) ATEmix (inhalation-dust/mist)

8,711.00 mg/kg 2.41 mg/l

ATEmix (dermal) ATEmix (inhalation-vapor)

21,608.00 mg/kg (ATE) 16.00 ATEmix

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: Toxic to aquatic life.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Ethylene Glycol 107-21-1	(Chlorella pyrenoidosa) 180,000 mg/L toxic Toxicity Threshold (cell multiplication Inhibition test): Algae (Microcystis acruginosa), 2000 mg/L; Green algae	LC50: 41000 mg/L 96h [Fish (Trout)] 96h [Fish (bluegill fish)] 34250 mg/L 72h [Fish (Goldfish)]	No data available	46300 mg/L 48h (water flea)
Chlorothalonil 1897-45-6	72h EC50: = 0.57 mg/L (Desmodesmus subspicatus) 72h EC50: = 0.0068 mg/L (Pseudokirchneriella Subcapitata)	96h LC50: = 0.012 mg/L (Oncorhynchus mykiss) 96h LC50: 0.0076 mg/L (Oncorhynchus mykiss) 96h LC50: 0.0221-0.032 mg/L (Lepomis macrochirus) 96h LC50: 0.045-0.057 mg/L (Lepomis macrochirus)		48h EC50: 0.0342 – 0.143 mg/L

Persistence and Degradability: No information available

Bioaccumulation

Chemical Name Log Pow

Chlorothalonil 2.9

1897-45-6

Methylchloroisothiazolinone -0.71-0.75

26172-55-4

Other Adverse Effects: No information available

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal Methods: This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated Packaging: Dispose of contents/containers in accordance with local regulations

California Hazardous Waste Codes: 331

SECTION 14: TRANSPORT INFORMATION

DOTNot RegulatedProper Shipping NameNon-Regulated

Hazard Class N/A

TDG

No data available

IATA

No data available

IMDG/IMO

No data available

SECTION 15: REGULATORY INFORMATION

International Inventories

TSCA Complies

DSL All components are listed either on the DSL or NDSL

TSCA – United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL – Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains no chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

CHEMICAL NAME	CAS NO.	WEIGHT %	SARA 313 – THRESHOLD VALUES %
Chlorothalonil	1897-45-6	0.1-1	0.1

SARA 311/312 Hazard Categories

Acute Health Hazard Yes
Chronic Health Hazard Yes
Fire Hazard No
Sudden release of pressure hazard No
Reactive Hazard No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name

Titanium dioxide – 13463-67-7 Chlorothalonil – 1897-45-6

California Proposition 65

Carcinogen Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Titanium dioxide – 13463-67-4	Χ	X	X		
Calcium carbonate – 1317-65-3	Χ	Χ	Χ		
Chlorothalonil – 1897-45-6	Χ	Χ	Χ	Χ	
Ethylene glycol – 107-21-1	Χ	Χ	Χ		
1,2, Benzisothiazolin-3-one - 2634-33-	5 X	X	Χ		

International Regulations

Canada
WHMIS Hazard Class
D2A – Very toxic materials
D2B – Toxic materials



SECTION 16: OTHER INFORMATION

NFPA Health Hazards 2 Flammability 0 Instability 0 Physical and Chemical Hazards
Personal Protection

HMIS Health Hazards 2* Flammability 0 Physical Hazard 0 X

Chromic Hazard Star Legend * = Chronic Health Hazard

WARNING! If you scrape, sand or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear NIOSH-approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD (5323) or log on to: www.epa.gov/lead