



# SAFETY DATA SHEET



ISSUING DATE 11-MAR-2021

REVISION DATE 01-SEP-2021

REVISION NUMBER 2



## IDENTIFICATION

### Product identifier

Product Name

Silver Shield™

### Other means of identification

CAS# (Active Ingredient)

9012-76-4

### Recommended use of the chemical and restrictions on use

Recommended Use

Communicating the natural biostatic properties of Chitosan to hard or soft surfaces.

Restrictions on use

N/A

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

Supplier Identification

Synergy Americas, Inc.

Address

127 Stream Road  
Winterport, Maine  
04496

USA

Telephone

207.944.3495

E-mail

info@synergy-americas.com

Emergency telephone number

**1-800-222-1222 (Poison Control)**

Company Emergency Phone Number

207.944.3495



## HAZARDS IDENTIFICATION

### Classification

In accordance with OSHA Standards Code 29 CFR 1910.1200, this product contains no substances which, at their given concentration, are considered to be hazardous to health.

Appearance

Clear, amber

Physical state

Liquid

Odor

Slightly Vinegar-like

### GHS Label elements, including precautionary statements

Hazard statements

Not classified.

### Other information

Not recognized as having any acute toxicity

0 % of the mixture consists of ingredient(s) of unknown toxicity

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)



## COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

The product contains no substances which at their given concentration, are considered to be hazardous to health

Dry Film

This product produces a biopolymer film that is clear, thin, hydrophobic and non-leaching.

## 4 FIRST AID MEASURES

### First aid measures

Inhalation

Eye contact

Skin contact

Ingestion

Remove to fresh air.

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Wash skin with soap and water.

Clean mouth with water and drink afterwards plenty of water.

### Most important symptoms and effects, both acute and delayed

Symptoms

No information available.

### Indication of any immediate medical attention and special treatment needed

Note to physicians

Treat symptomatically.

## 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

None known.

Hazardous combustion products

Carbon oxides.

Explosion data

Sensitivity to Mechanical Impact

None.

Sensitivity to Static Discharge

None.

Special protective equipment for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## 6 ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

Personal precautions

Avoid contact with eyes.

### 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

Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

## 7 HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

Storage conditions

Keep containers tightly closed in a dry, cool and well-ventilated place

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

Exposure limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

### Appropriate engineering controls

Engineering controls

Showers

Eyewash stations

Ventilation systems.

**Individual protection measures, such as personal protective equipment**

Eye/face protection	No special protective equipment required.
Skin and body protection	No special protective equipment required.
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.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice

**PHYSICAL AND CHEMICAL PROPERTIES****Physical and Chemical Properties**

Physical state	Liquid
Appearance	Clear, amber
Odor	Vinegar-like
Color	No information available
Odor Threshold	Not applicable

**Property****Values****Remarks Method**

pH	6-7	
Melting/freezing point	No data available	None known
Boiling point/boiling range	99 °C / 211 °F	
Flash point	None	None known
Evaporation rate	None	None known
Flammability (solid, gas)	None	None known
Flammability limit in Air		None known
Upper flammability limit	None	
Lower flammability limit	None	
Vapor pressure	None	None known
Vapor density	None	None known
Relative density	1.01	
Water solubility	Liquid	
Solubility(ies)	None	None known
Partition coefficient: n-octanol/water	Not Applicable	
Autoignition temperature	None	None known
Decomposition temperature	None	None known
Kinematic viscosity	None	None known
Dynamic viscosity	5-10 cps @ 25°C	

**Other Information**

Explosive properties	None
Oxidizing properties	None
Softening point	None
Molecular weight	None
VOC content (%)	None
Liquid density	None
Bulk density	None
Particle size	None
Particle size distribution	None

**STABILITY AND REACTIVITY**

Reactivity	None
Chemical stability	Stable under normal conditions
Possibility of hazardous reactions	None under normal processing
Hazardous polymerization	Hazardous polymerization does not occur
Conditions to avoid	None known
Incompatible materials	None known
Hazardous decomposition products	Carbon oxides may be released in the first 5 minutes of drying

**TOXICOLOGICAL INFORMATION****Information on likely routes of exposure****Product Information**

Inhalation

Specific test data for the substance or mixture is not available.

Eye contact

Specific test data for the substance or mixture is not available.

Skin contact

Specific test data for the substance or mixture is not available.

Ingestion

Specific test data for the substance or mixture is not available.

**Information on toxicological effects**

Symptoms

None known.

**Numerical measures of toxicity****Acute Toxicity****Not recognized as having any acute toxicity**

0 % of the mixture consists of ingredient(s) of unknown toxicity.

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.

0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.

0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).

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**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

Skin corrosion/irritation

None known

Serious eye damage/eye irritation

None known

Respiratory or skin sensitization

None known

Germ cell mutagenicity

None known

Carcinogenicity

None known

Reproductive toxicity

None known

STOT - single exposure

None known

STOT - repeated exposure

None known

Aspiration hazard

None known

**ECOLOGICAL INFORMATION**

Ecotoxicity

None known

Persistence and degradability

None known

Bioaccumulation

None known

Mobility

None known

Other adverse effects

None known

**DISPOSAL CONSIDERATIONS****Waste treatment methods**

Waste from residues/unused products

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging

Do not reuse empty containers.

**TRANSPORT INFORMATION**

DOT

Not regulated

Proper shipping

Not regulated

Name hazard class

N/A

TDG

Not regulated

MEX

Not regulated

ICAO

Not regulated

IATA

Not regulated

Proper shipping name

Not regulated

Hazard class

N/A





IMDG/IMO

Hazard Class

Not regulated

N/A

RID

Not regulated

ADR

Not regulated

ADN

Not regulated

**REGULATORY INFORMATION**

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

**International Regulations**

Ozone-depleting substances (ODS)

Not applicable

Persistent organic pollutants

Not applicable

Export notification requirements

Not applicable

**International Inventories**

TSCA

Contact supplier for inventory compliance status.

DSL/NDSL

Contact supplier for inventory compliance status.

EINECS/ELINCS

Contact supplier for inventory compliance status.

ENCS

Contact supplier for inventory compliance status.

KECL

Contact supplier for inventory compliance status.

PICCS

Contact supplier for inventory compliance status.

AICS

Contact supplier for inventory compliance status.

**Legend**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

**US Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Acute health hazard

No

Chronic health hazard

No

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 does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

This product does not contain any substances above threshold limits that are regulated by state right-to-know.



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### OTHER INFORMATION

NFPA	Health hazards	1	Flammability	0	Instability	0	Physical and Chemical Properties - Personal Protection X
HMIS	Health hazards	1	Flammability	0	Physical hazards	0	

Prepared By  
Pilgrim Consulting & Design  
127 Stream Road  
Winterport, Maine 04496  
207.944.3495

#### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text



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