



MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Code:	TURFRE-001-BULK	Emergency Contact:	Chemtrec (800)424-9300
Company Name:	TurFresh	Phone Number	855-444-8873
Product Name:	BioTurf Bio S+	Company Name:	418 Goetz Ave Santa Ana, CA 92707

SECTION 2 - HAZARDS IDENTIFICATION



Serious Eye Damage/Eye Irritation, Category 2B
Acute Toxicity: Oral, Category 4
Skin Corrosion/Irritation, Category 2

GHS Signal Word:

Warning

GHS Hazard Phrases:

Harmful if swallowed.
Causes skin irritation.
Causes eye irritation.
May cause an allergic skin reaction.

GHS Precautionary Phrases:

Keep out of reach of children.
Read label before use.
Do not get in eyes, on skin, or on clothing.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash hands thoroughly after handling.
Wear protective gloves/protective clothing/eye protection.

GHS Storage & Disposal Phrases:

Dispose of contents/container in accordance to local, state and federal regulations.

GHS Response Phrases:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for 15 minutes. Get immediate medical advice/attention.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Get immediate medical advice/attention.
IF ON SKIN: Wash with plenty of water. If skin irritation occurs, get medical advice/attention.

Skin Contact:

May cause skin irritation. Repeated or prolonged exposure may cause drying of the skin. May cause skin sensitization, an allergic reaction, which becomes evident on reexposure to this material.

Eye Contact:

May cause eye irritation. May cause redness.

Ingestion:

May be harmful if swallowed. May cause gastrointestinal irritation.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Hazardous Component (Chemical Name)	Concentration
34398-01-1	Poly(oxy-1,2-ethanediyl),.alpha.-undecyl-.omega.-hydroxy-	< 5.0 %
N/A	Viable Bacteria Cultures	< 5.0 %

SECTION 4 - FIRST AID MEASURES

Emergency and First Aid Procedures: N/A

In Case of Skin Contact:

Flush skin with plenty of water. If skin irritation occurs, get medical advice/attention.

In Case of Eye Contact:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

In Case of Ingestion:

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. If victim is conscious and alert, give 2-4 cupfuls of water. Get medical attention immediately.

Note to Physician:

Treat symptomatically and supportively. Show this safety data sheet to the doctor in attendance.

SECTION 5 - FIRE FIGHTING MEASURES

Flash Pt: N/A

Explosive Limits: LEL: No data. UEL: No data.

Autoignition Pt: N/A

Suitable Extinguishing Media:

Use water fog, dry chemical, carbon dioxide, or alcohol-resistant foam.

Fire Fighting Instructions:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Flammable Properties and Hazards:

High temperatures and fire conditions can result in the formation of carbon monoxide and carbon dioxide.

Hazardous Combustion Products:

No data available.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Protective Precautions, Protective Equipment and Emergency Procedures:

Use proper personal protective equipment as indicated in Section 8.

Environmental Precautions:

Observe all federal, state, and local environmental regulations.

Steps To Be Taken In Case Material Is Released Or Spilled:

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container.

SECTION 7 - HANDLING AND STORAGE

Precautions To Be Taken in Handling:

Do not get in eyes, on skin, or on clothing. Do not ingest or inhale. Use with adequate ventilation.

Precautions To Be Taken in Storing:

Do not store in direct sunlight. Protect containers against damage. Keep container tightly closed in a dry and well-ventilated place.

Other Precautions:

Handle in accordance with good industrial hygiene and safety practice.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
34398-01-1	Poly(oxy-1,2-ethanediyl),.alpha.-undecyl-.omega.-hydroxy-	No data.	No data.	No data.
N/A	Viable Bacteria Cultures	No data.	No data.	No data.

Respiratory Equipment (Specify Type):

No special respiratory protection equipment is required with normal use.

Eye Protection: Safety glasses.

Protective Gloves:

Wear appropriate protective gloves to prevent skin exposure. Rubber or neoprene gloves.

Other Protective Clothing: No data available.

Engineering Controls (Ventilation etc.):

No data available.

Work/Hygienic/Maintenance Practices:

Handle in accordance with good industrial hygiene and safety practice.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical States:	[] Gas [X] Liquid [] Solid	Vapor Pressure (vs. Air or mm Hg):	N/A
Appearance and Odor:	Slightly hazy liquid.	Vapor Density (vs. Air = 1):	N/A
pH:	7.5 - 8.8	Specific Gravity (Water = 1):	0.995 - 1.005
Melting Point:	N/A	Density:	N/A
Boiling Point:	N/A	Solubility in Water:	No data.
Flash Point:	N/A	Saturated Vapor Concentration:	N/A
Evaporation Rate:	N/A	Octanol/Water Partition Coefficient:	No data.
Flammability (solid, gas):	No data available.	Autoignition Pt:	N/A
Explosive Limits:	LEL: No data. UEL: No data.	Decomposition Temperature:	N/A
Flammability (solid, gas):	No data available.	Viscosity:	N/A
Explosive Limits:	LEL: No data. UEL: No data.		

SECTION 10 - STABILITY AND REACTIVITY

Reactivity:

High temperatures and fire conditions can result in the formation of carbon monoxide and carbon dioxide, organic combustion products.

Stability:

Unstable [] Stable [X]

Conditions To Avoid - Instability:

Incompatible materials, High temperatures, Light.

Incompatibility - Materials To Avoid:

Strong acids.

Hazardous Decomposition or Byproducts:

No data available.

Possibility of Hazardous Reactions:

Will occur [] Will not occur [X]

Conditions To Avoid - Hazardous Reactions:

No data available.

SECTION 11 - TOXICOLOGICAL INFORMATION

Toxicological Information:

Epidemiology: No information found.

Teratogenicity: No information available.

Reproductive Effects: No information available.

Mutagenicity: No information available.

Neurotoxicity: Acute toxicity. No data available.

Respiratory or skin sensitization: No information available.

Carcinogenicity/Other Information:

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

IARC: 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 IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Carcinogenicity:

NTP? No

IARC Monographs? No

OSHA Regulated? No

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
34398-01-1	Poly(oxy-1,2-ethanediyl),.alpha.-undecyl-.omega.-hydroxy-	N/A	N/A	N/A	N/A
N/A	Viable Bacteria Cultures	N/A	N/A	N/A	N/A

SECTION 12 - ECOLOGICAL INFORMATION

General Ecological Information:

Environmental: No information available.

Physical: No information available.

CAS# 34398-01-1: Poly(oxy-1,2-ethanediyl), .alpha.-undecyl-.omega.-hydroxy-: LC50, Fathead Minnow (Pimephales promelas), 7100. UG/L, 96 H, Mortality. Result: Affected fish lost equilibrium prior to death. Effective concentration to 50% of test organisms., Water Flea (Daphnia magna), 6700. UG/L, 48 H, Intoxication., Result: Loss of equilibrium.

Results of PBT and vPvB assessment:

No information available.

Persistence and Degradability:

No information available.

Bioaccumulative Potential:

No data available.

Mobility in Soil:

No data available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Method:

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

SECTION 14 - TRANSPORT INFORMATION

LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: Not Regulated. **DOT Hazard Class:** N/A **UN/NA Number:** N/A

SECTION 15 - REGULATORY INFORMATION

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

S. 304 RQ

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	No
34398-01-1	Poly(oxy-1,2-ethanediyl),.alpha.-undecyl-.omega.-hydroxy-	No	No	No
N/A	Viable Bacteria Cultures	No	No	

This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:

<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Explosive	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (Physical) Hazard Not Otherwise Classified (HNOC)
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Flammable (gases, aerosols, liquid, or solid)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Acute toxicity (any route of exposure)
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Oxidizer (liquid, solid or gas)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Skin Corrosion or Irritation
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Self-reactive	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Serious eye damage or eye irritation
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pyrophoric (liquid or solid)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Respiratory or Skin Sensitization
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pyrophoric gas	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Germ cell mutagenicity
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Self-heating	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Carcinogenicity
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Organic peroxide	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Reproductive toxicity
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Corrosive to metal	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Specific target organ toxicity (single or repeated exposure)
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Gas under pressure (compressed gas)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Aspiration Hazard
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No In contact with water emits flammable gas	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Simple Asphyxiant
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Combustible Dust	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (Health) Hazard Not Otherwise Classified (HNOC)

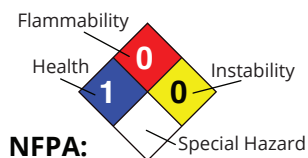
CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
34398-01-1	Poly(oxy-1,2-ethanediyl),.alpha.-undecyl-.omega.-hydroxy-	CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No; CA TAC, Title 8: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NJ EHS: No; NY Part 597: No; PA HSL: No; WI Air: No
N/A	Viable Bacteria Cultures	CWA NPDES: No; TSCA: No; CA PROP.65: No; CA TAC, Title 8: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NJ EHS: No; NY Part 597: No; PA HSL: No; WI Air: No

SECTION 16 - OTHER INFORMATION

Revision Date:

07/25/2018

Hazard Rating System:



Additional Information About This Product:

No data available.

Company Policy or Disclaimer:

While TurFresh believes the statements set forth herein are accurate as of the date hereof, TurFresh makes no warranty with respect thereto and expressly disclaims all liability for reliance thereon. Such data is offered solely for your consideration, investigation, and verification.