GREEN 390U PHA

Version Number 1.2 Revision Date 06/27/2023



Page 1 of 15 Print Date 06/29/2023

SAFETY DATA SHEET

GREEN 390U PHA

Section 1. Identification		
GHS product identifier Chemical name CAS number Other means of identification Product type	::	GREEN 390U PHA Mixture Mixture CC10365717 solid
<u>Relevant identified uses of the subs</u> Product use	tance :	or mixture and uses advised against Industrial applications.
Supplier's details	:	AVIENT CORPORATION 33587 Walker Road, Avon Lake, OH 44012
		1 (440) 930-1000 or 1 (844) 4AVIENT
Emergency telephone number (with hours of operation)	:	CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).

Section 2. Hazards identification

This mixture has not been evaluated as a whole. Information provided on the health effects of this product is based on individual components. All ingredients are bound and potential for hazardous exposure as shipped is minimal. However, some vapors may be released upon heating and the end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect employees from exposure. After handling, always wash hands thoroughly with soap and water.

OSHA/HCS status	:	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Classification of the substance or mixture	:	Not classified.
GHS label elements		
Signal word Hazard statements	:	No signal word. No known significant effects or critical hazards.

GREEN 390U PHA

Version Number 1.2 Revision Date 06/27/2023

AVIENT

Page 2 of 15 Print Date 06/29/2023

Precautionary statements

	:	Not applicable.
Prevention	:	Not applicable.
Response	:	Not applicable.
Storage	:	Not applicable.
Disposal	:	Not applicable.
Supplemental label elements	:	None known.
Hazards not otherwise classified	:	None known.
		Not available.

Section 3. Composition/information on ingredients

Substance/mixture	:	Mixture
Chemical name	:	Mixture
Other means of identification	:	CC10365717

CAS number/other identifiers

Ingredient name	%	CAS number
Titanium dioxide	>= 0.3 - <= 1	13463-67-7

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	2/15

GREEN 390U PHA

ÀVIENT

Version Number 1.2	Page 3 of 15
Revision Date 06/27/2023	Print Date 06/29/2023

Skin contact Ingestion	:	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel.
		Get medical attention if symptoms occur.
Most important symptoms/effects, act	ute a	nd delayed
Potential acute health effects		
Eye contact	:	No known significant effects or critical hazards.
Inhalation	:	No known significant effects or critical hazards.
Skin contact	:	No known significant effects or critical hazards.
Ingestion	:	No known significant effects or critical hazards.
Over-exposure signs/symptoms		
Eye contact	:	No specific data.
Inhalation	:	No specific data.
Skin contact	:	No specific data.
Ingestion	:	No specific data.
Indication of immediate medical atte	entio	n and special treatment needed, if necessary
Notes to physician	:	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	:	No specific treatment.
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training.
San torrigological information (Santia	n 11	

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Unsuitable extinguishing media	:	In case of fire, use water spray (fog), foam, dry chemical or CO_2 . None known.
Specific hazards arising from the chemical Hazardous thermal	:	No specific fire or explosion hazard. Decomposition products may include the following materials:

GREEN 390U PHA

Version Number 1.2 Revision Date 06/27/2023



	Page 4 of 15
Print	Date 06/29/2023

decomposition products		carbon dioxide carbon monoxide nitrogen oxides metal oxide/oxides
Special protective actions for fire- fighters	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self- contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through
For emergency responders	:	spilled material. Put on appropriate personal protective equipment. If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions	:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Methods and materials for containme	nt a	nd cleaning up
Small spill	:	Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
Large spill	:	Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

:

Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see Section 8).

GREEN 390U PHA

Ve Re

ÀVIENT

/ersion Number 1.2	Page 5 of 15
Revision Date 06/27/2023	Print Date 06/29/2023

Advice on general occupational hygiene	:	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	:	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

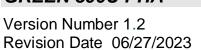
Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Titanium dioxide	OSHA PEL 1989 (1989-03-01)
	TWA 10 mg/m3 Form: Total dust
	OSHA PEL (1993-06-30)
	TWA 15 mg/m3 Form: Total dust
	ACGIH TLV (2022-01-06)
	TWA 0.2 mg/m3 Form: respirable fraction, nanoscale particles
	TWA 2.5 mg/m3 Form: respirable fraction, finescale particles

Appropriate engineering controls	:	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure controls	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
Individual protection measures		
Hygiene measures	:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated
		5/15

GREEN 390U PHA



ÀVIENT

Page 6 of 15
Print Date 06/29/2023

Eye/face protection	:	clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
Skin protection		
Hand protection	:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Body protection	:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	:	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state Color Odor Odor threshold pH Melting point Boiling point Flash point	:::::::::::::::::::::::::::::::::::::::	solid [Pellets.] GREEN Faint odor. Not available. Not available. Not available. Not available. Not applicable.
Burning time Burning rate Evaporation rate Flammability (solid, gas) Lower and upper explosive (flammable) limits	:	Not available. Not available. Not available. Not available. Lower: Not applicable. Upper: Not applicable.

GREEN 390U PHA

Version Number 1.2 Revision Date 06/27/2023

ÀVIENT

Page 7 of 15 Print Date 06/29/2023

Vapor pressure	:	Not available.
Vapor density	:	Not applicable.
Relative density		Not available.
v		Not available.
Solubility	•	
Solubility in water	:	insoluble in water.
Partition coefficient: n-	:	Not applicable.
octanol/water		
Auto-ignition temperature	:	Not applicable.
Decomposition temperature	:	Not available.
		Not available.
SADT	:	
Viscosity	:	Dynamic: Not available.
		Kinematic: Not applicable.
Aerosol product		
The set of		
Heat of combustion		Not available.

Ignition distance Enclosed space ignition - Time	:	Not available. Not available.
equivalent Enclosed space ignition - Deflagration density	:	Not available.
Flame height Flame duration	:	Not available. Not available.

Section 10. Stability and reactivity

Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	:	Stable under recommended storage and handling conditions (see Section 7).
Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	:	Keep away from extreme heat and oxidizing agents.
Incompatible materials	:	Keep away from strong acids. Oxidizer.
Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

GREEN 390U PHA

Version Number 1.2 Revision Date 06/27/2023



Page 8 of 15 Print Date 06/29/2023

Information on toxicological effects

Acute toxicity

Acute toxicity Product/ingredient name	Result	Species	Dose	Exposure
Titanium oxide (TiO2)		•	L	
	LC50 Inhalation	Rat - Male	6.82 Mg/l	4 h
	Dusts and mists			
	LD50 Dermal	Rabbit	> 5,000 mg/kg	-
Conclusion/Summary	: Mixtur	e.Not fully test	ed.	
Irritation/Corrosion				
Conclusion/Summary				
Skin		re.Not fully tes		
Eyes		re.Not fully tes		
Respiratory	: Mixtu	re.Not fully tes	ted.	
Sensitization				
Conclusion/Summary				
Skin		re.Not fully tes		
Respiratory	: Mixtu	re.Not fully tes	ted.	
Mutagenicity				
Conclusion/Summary	: Mixtu	re.Not fully tes	ted.	
Carcinogenicity				
Conclusion/Summary	: Mixtu	re.Not fully tes	ted.	
Classification				
Product/ingredient name	OSHA IA	RC	NTP	
Titanium oxide (TiO2)	- 2B			
Reproductive toxicity				
Conclusion/Summary	: Mixtu	re.Not fully tes	ted.	
<u>Teratogenicity</u>				
Conclusion/Summary	: Mixtur	re.Not fully tes	ted.	

Specific target organ toxicity (single exposure)

GREEN 390U PHA

Version Number 1.2 Revision Date 06/27/2023



Page 9 of 15 Print Date 06/29/2023

Not available.

Specific target orga	<u>n toxicity (repeated exposure)</u>
Not available.	
Aspiration hazard	

Not available.

Information on the likely routes of : Not available. exposure

Potential acute health effects

Eye contact	:	No known significant effects or critical hazards.
Inhalation	:	No known significant effects or critical hazards.
Skin contact	:	No known significant effects or critical hazards.
Ingestion	:	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	:	No specific data.
Inhalation	:	No specific data.
Skin contact	:	No specific data.
Ingestion	:	No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects Potential delayed effects	:	Not available. Not available.
Long term exposure		
Potential immediate effects Potential delayed effects	:	Not available. Not available.
Potential chronic health effects		
Conclusion/Summary	:	Mixture.Not fully tested.
General	:	No known significant effects or critical hazards.
Carcinogenicity	:	No known significant effects or critical hazards.
Mutagenicity	:	No known significant effects or critical hazards.
Teratogenicity	:	No known significant effects or critical hazards.
Developmental effects	:	No known significant effects or critical hazards.
Fertility effects	:	No known significant effects or critical hazards. No known significant

GREEN 390U PHA

Version Number 1.2 Revision Date 06/27/2023



Page 10 of 15 Print Date 06/29/2023

effects or critical hazards.

Numerical measures of toxicity

 $\frac{\textbf{Acute toxicity estimates}}{N/A}$

Other information

This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

Section 12. Ecological information

:

Toxicity

Product/ingredient name	Result	Species	Exposure
Titanium oxide (TiO2)			
	Acute LC50 > 1,000 Mg/l	Fish - Fundulus heteroclitus	96 h
	Marine water		
	Acute LC50 3 Mg/l Fresh water	Crustaceans - Ceriodaphnia dubia	48 h
	Acute LC50 6.5 Mg/l Fresh water	Daphnia - Daphnia pulex	48 h
GREEN 390U PHA		·	•
Remarks - Acute - Aquatic invertebrates.:	Chemicals are not readily availab	le as they are bound within the po	lymer matrix.
Conclusion/Summary	: Chemicals are not readily available as they are bound within the polymer matrix.		
Persistence and degradability			
Conclusion/Summary	: Chemicals are not read polymer matrix.	dily available as they are bound w	ithin the
Conclusion/Summary	: Chemicals are not readily available as they are bound within the polymer matrix.		
Bioaccumulative potential Not available.			

GREEN 390U PHA

Version Number 1.2 Revision Date 06/27/2023

ÀVIENT

Page 11 of 1	5
Print Date 06/29/202	23

Soil/water partition coefficient : Not available. (KOC)

:

Other adverse effects

: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

United States - RCRA Acute hazardous waste "P" List: Not listed

United States - RCRA Toxic hazardous waste "U" List: Not listed

Section 14. Transport information

U.S.DOT 49CFR Ground/Air/Water	:	Not regulated for transportation.
International Air ICAO/IATA	:	Not classified as dangerous goods under transport regulations.
International Water IMO/IMDG	:	Not classified as dangerous goods under transport regulations.

Section 15. Regulatory information

U.S. Federal regulations	:	United States - TSCA 12(b) - Chemical export notification: None of the components are listed.

11/15

GREEN 390U PHA

Version Number 1.2 Revision Date 06/27/2023

ÀVIENT

Page 12 of 15 Print Date 06/29/2023

United States - TSCA 4(a) - Final Test Rules: Not listed United States - TSCA 4(a) - ITC Priority list: Not listed United States - TSCA 4(a) - Proposed test rules: Not listed United States - TSCA 4(f) - Priority risk review: Not listed United States - TSCA 5(a)2 - Final significant new use rules: Not listed United States - TSCA 5(a)2 - Proposed significant new use rules: Not listed United States - TSCA 5(e) - Substances consent order: Not listed United States - TSCA 6 - Final risk management: Not listed United States - TSCA 6 - Proposed risk management: Not listed United States - TSCA 8(a) - Chemical risk rules: Not listed United States - TSCA 8(a) - Dioxin/Furane precusor: Not listed United States - TSCA 8(a) - Chemical Data Reporting (CDR): Not determined United States - TSCA 8(a) - Preliminary assessment report (PAIR): Not listed United States - TSCA 8(c) - Significant adverse reaction (SAR): Not listed United States - TSCA 8(d) - Health and safety studies: Not listed United States - EPA Clean water act (CWA) section 307 - Priority pollutants: Listed Phthalocvanine green United States - EPA Clean water act (CWA) section 311 -Hazardous substances: Not listed United States - EPA Clean air act (CAA) section 112 - Accidental release prevention - Flammable substances: Not listed United States - EPA Clean air act (CAA) section 112 - Accidental release prevention - Toxic substances: Not listed United States - Department of commerce - Precursor chemical: Not listed

Clean Air Act Section 112(b)	:	Not listed
Hazardous Air Pollutants (HAPs)		
Clean Air Act Section 602 Class I	:	Not listed
Substances		
Clean Air Act Section 602 Class II	:	Not listed
Substances		
DEA List I Chemicals (Precursor	:	Not listed
Chemicals)		
DEA List II Chemicals (Essential	:	Not listed
Chemicals)		

US. EPA CERCLA Hazardous Substances (40 CFR 302)

not applicable

<u>SARA 311/312</u>

GREEN 390U PHA

Version Number 1.2 Revision Date 06/27/2023



Page 13 of 15 Print Date 06/29/2023

Classification

Not applicable.

:

Composition/information on ingredients

No products were found.

Name	%	Classification
Titanium oxide (TiO2)	>= 0.3 - <= 1	CARCINOGENICITY - Category 2

Not applicable.

<u>State regulations</u> Massachusetts	: The following components are listed: Calcium carbonate
New York	None of the components are listed.
New Jersey	: The following components are listed:
	Calcium carbonate
Pennsylvania	: The following components are listed: Calcium carbonate

California Prop. 65

WARNING: This product can expose you to Titanium dioxide, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Ingredient name	No significant risk level	Maximum acceptable dosage level
Titanium dioxide	-	-

United States inventory (TSCA 8b)	:	All components are active or exempted.		
Canada inventory	:	At least one component is not listed in DSL but all such components are listed in NDSL.		
International regulations Inventory list				
Australia	:	Not determined.		
Canada	:	At least one component is not listed in DSL but all such components are listed in NDSL.		
China	:	Not determined.		
Eurasian Economic Union	:	Russian Federation inventory: Not determined.		
Japan	:	Japan inventory (CSCL): Not determined.		
13/15				

GREEN 390U PHA

Version Number 1.2 Revision Date 06/27/2023

AVIENT

Page 14 of 15 Print Date 06/29/2023

		Japan inventory (ISHL): Not determined.
New Zealand	:	Not determined.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	Not determined.
Thailand	:	Not determined.
Turkey	:	Not determined.
United States	:	All components are active or exempted.
Viet Nam	:	Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	/	0
Flammability		0
Physical hazards		0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual. History

<u>Instory</u>		
Date of printing	:	06/29/2023
Date of issue/Date of revision	:	06/27/2023
Date of previous issue	:	09/26/2022
Version	:	1.2
Key to abbreviations	:	ATE = Acute Toxicity Estimate
5		BCF = Bioconcentration Factor
		GHS = Globally Harmonized System of Classification and Labelling of
		Chemicals
		IATA = International Air Transport Association
		IBC = Intermediate Bulk Container
		IMDG = International Maritime Dangerous Goods
		LogPow = logarithm of the octanol/water partition coefficient
		MARPOL = International Convention for the Prevention of Pollution From
		Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine
		pollution)
		UN = United Nations
References	:	Not available.

Notice to reader

GREEN 390U PHA

Version Number 1.2 Revision Date 06/27/2023



Page 15 of 15 Print Date 06/29/2023

To the best of our knowledge, the information contained herein is accurate. However, neither the abovenamed supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. Particularly this information may not be valid for such material used in conjunction with any other materials or in any process, unless specified in the text.