

MED. BEIGE SUBSTRATE

Version Number 1.5 Revision Date 10/19/2016 Page 1 of 20 Print Date 11/08/2016

SAFETY DATA SHEET

MED. BEIGE SUBSTRATE

Section 1. Identification

GHS product identifier : MED. BEIGE SUBSTRATE

Chemical name: MixtureCAS number: MixtureOther means of identification: CC10152641

Product type : solid

Relevant identified uses of the substance or mixture and uses advised against

Product use : Industrial applications. Plastics.

Supplier's details : POLYONE CORPORATION

33587 Walker Road, Avon Lake, OH 44012

1 (440) 930-1000 or 1 (866) POLYONE

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. This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or

mixture

Not classified.

GHS label elements



MED. BEIGE SUBSTRATE

 Version Number 1.5
 Page 2 of 20

 Revision Date 10/19/2016
 Print Date 11/08/2016

Signal word : No signal word.

Hazard statements: No known significant effects or critical hazards.

Precautionary statements

General: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.

Section 3. Composition/information on ingredients

Substance/mixture: MixtureChemical name: MixtureOther means of identification: CC10152641

CAS number/other identifiers

Ingredient name	%	CAS number
2-Propenenitrile, polymer with Ethenylbenzene	50 - 75	9003-54-7
Titanium dioxide	5 - 10	13463-67-7
Carbon black	0.1 - 0.3	1333-86-4
Styrene	0.1 - 0.3	100-42-5

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.



MED. BEIGE SUBSTRATE

Version Number 1.5 Revision Date 10/19/2016 Page 3 of 20 Print Date 11/08/2016

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. Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get

medical attention immediately.

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. Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical

attention immediately.

Skin contact: Flush contaminated skin with plenty of water. Remove contaminated

clothing and shoes. Get medical attention if symptoms occur. In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get

medical attention immediately.

Ingestion: Wash out mouth with water. Remove victim to fresh air and keep at

rest in a position comfortable for breathing. 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. Wash out mouth with water. Do not induce vomiting unless directed to do so

by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards. No known significant

effects or critical hazards.

Inhalation : No known significant effects or critical hazards. No known significant

effects or critical hazards.

Skin contact: No known significant effects or critical hazards. No known significant

effects or critical hazards.

Ingestion : No known significant effects or critical hazards. No known significant



MED. BEIGE SUBSTRATE

Version Number 1.5 Revision Date 10/19/2016 Page 4 of 20 Print Date 11/08/2016

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 attention 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. No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if

large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without

suitable training. No action shall be taken involving any personal risk

or without suitable training. It may be dangerous to the person

providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : In case of fire, use water spray (fog), foam, dry chemical or CO₂.In

case of fire, use water spray (fog), foam, dry chemical or CO₂.

Unsuitable extinguishing media : None known. None known.

Specific hazards arising from the

chemical

Hazardous thermal decomposition products

No specific fire or explosion hazard. No specific fire or explosion

hazard.

Decomposition products may include the following materials:

carbon dioxide carbon monoxide nitrogen oxides

metal oxide/oxidesDecomposition products may include the following

materials: carbon dioxide carbon monoxide metal oxide/oxides



MED. BEIGE SUBSTRATE

Version Number 1.5 Revision Date 10/19/2016 Page 5 of 20 Print Date 11/08/2016

Special protective actions for firefighters 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. 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

For non-emergency personnel

Fire-fighters should wear appropriate protective equipment and selfcontained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. 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

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 spilled material. Put on appropriate personal protective equipment.

For emergency responders: If specialised 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".

also the information in Tor non-emergency personner.

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). 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 containment and 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. Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, 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



MED. BEIGE SUBSTRATE

Version Number 1.5 Revision Date 10/19/2016 Page 6 of 20 Print Date 11/08/2016

contact information and Section 13 for waste disposal. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, 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 Advice on general occupational hygiene

- Put on appropriate personal protective equipment (see Section 8).
- 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. 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
8	<u> </u>



MED. BEIGE SUBSTRATE

Version Number 1.5 Revision Date 10/19/2016 Page 7 of 20 Print Date 11/08/2016

2-Propenenitrile, polymer with Ethenylbenzene	
Styrene	OSHA PEL 1989 (1989-03-01) PEL: Permissible Exposure Level 215 mg/m3 50 ppm Short Term Exposure Limit value for a 15-minute reference period expressed in parts per million or in mg/m3. 425 mg/m3 100 ppm OSHA PEL Z2 (1993-06-30) PEL: Permissible Exposure Level 100 ppm Ceiling,is a a limit indicating the maximum concentration of a chemical substances in the breathing zone that should not be exceeded. 200 ppm Acceptable Maximum Peak (AMP) 600 ppm NIOSH REL (1994-06-01) Time Weighted Average (TWA) 215 mg/m3 50 ppm Short Term Exposure Limit value for a 15-minute reference period expressed in parts per million or in mg/m3. 425 mg/m3 100 ppm ACGIH TLV (1997-05-21) TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level 85 mg/m3 20 ppm TLV-STEL: Threshold Limit Value - Short Time Exposure Level 170 mg/m3 40 ppm
Titanium dioxide	OSHA PEL 1989 (1989-03-01) PEL: Permissible Exposure Level 10 mg/m3 Form: Total dust OSHA PEL (1993-06-30) PEL: Permissible Exposure Level 15 mg/m3 Form: Total dust NIOSH REL (1994-06-01) ACGIH TLV (1996-05-18) TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level 10 mg/m3
Carbon black	OSHA PEL 1989 (1989-03-01) PEL: Permissible Exposure Level 3.5 mg/m3 OSHA PEL (1993-06-30) PEL: Permissible Exposure Level 3.5 mg/m3 NIOSH REL (1994-06-01) Time Weighted Average (TWA) 3.5 mg/m3 Time Weighted Average (TWA) ACGIH TLV (2010-12-06) TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level 3 mg/m3 Form: Inhalable fraction



MED. BEIGE SUBSTRATE

Version Number 1.5 Revision Date 10/19/2016 Page 8 of 20 Print Date 11/08/2016

Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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. 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 clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. 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 clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

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. 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 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.



MED. BEIGE SUBSTRATE

Version Number 1.5 Revision Date 10/19/2016

Page 9 of 20 Print Date 11/08/2016

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. 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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

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. 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

Respiratory protection

Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state solid [Pellets.]

Color **TAN** Faint odor. Odor **Odor threshold** Not available. Ηα Not available. **Melting point** Not available. **Boiling point** Not available.



MED. BEIGE SUBSTRATE

Version Number 1.5 Page 10 of 20 Revision Date 10/19/2016 Print Date 11/08/2016

Flash pointNot available.Burning timeNot available.Burning rateNot available.Evaporation rateNot available.Flammability (solid, gas)Not available.

Lower and upper explosive : Lower: Not available. (flammable) limits : Upper: Not available.

Vapor pressure: Not available.Vapor density: Not available.Relative density: Not available.Solubility: Not available.Solubility in water: insoluble in water.

Partition coefficient: n- : Not available.

octanol/water

Auto-ignition temperature: Not available.Decomposition temperature: Not available.SADT: Not available.

Viscosity : Dynamic: Not available.

Kinematic: 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). 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. Under normal conditions of storage and use, hazardous

reactions will not occur.

Conditions to avoid : Keep away from extreme heat and oxidizing agents. Keep away from

extreme heat and oxidizing agents.

Incompatible materials : Keep away from strong acids.

Oxidizer. Keep away from strong acids.

Oxidizer.

Hazardous decomposition

products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage

and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information



MED. BEIGE SUBSTRATE

Version Number 1.5 Revision Date 10/19/2016 Page 11 of 20 Print Date 11/08/2016

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.

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure		
2-Propenenitrile, polymer with	2-Propenenitrile, polymer with Ethenylbenzene					
	LD50 Oral	Rat	1,800 mg/kg	-		
Titanium dioxide						
	LC50 Inhalation	Rat - Male	6.82 Mg/l	4 h		
	LD50 Dermal	Rabbit	> 5,000 mg/kg	-		
Carbon black						
	LD50 Oral	Rat	15,400 mg/kg	-		
Styrene	Styrene					
	LD50 Oral	Rat	2,650 mg/kg	-		
	LD50 Oral	Rat	5,000 mg/kg	-		
	LC50 Inhalation	Rat	2,770 ppm	4 h		
	LC50 Inhalation	Rat	11.8 mg/l	4 h		

Conclusion/Summary : Mixture.Not fully tested.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Titanium dioxide	Skin - Mild	Human		72 hrs	-
	irritant				
Styrene	Eyes - Mild	Human			-
	irritant				
	Skin - Mild	Rabbit			-
	irritant				
	Skin -	Rabbit			-
	Moderate				
	irritant				
	Eyes - Severe	Rabbit			-
	irritant				
	Eyes -	Rabbit		24 hrs	-
	Moderate				
	irritant				

Conclusion/Summary

Skin: Mixture.Not fully tested.Eyes: Mixture.Not fully tested.Respiratory: Mixture.Not fully tested.

Sensitization



MED. BEIGE SUBSTRATE

Version Number 1.5 Revision Date 10/19/2016 Page 12 of 20 Print Date 11/08/2016

Conclusion/Summary

Skin: Mixture.Not fully tested.Respiratory: Mixture.Not fully tested.

Mutagenicity

Conclusion/Summary : Mixture.Not fully tested.

Carcinogenicity

Conclusion/Summary : Mixture.Not fully tested.

Classification

Clussification		1	
Product/ingredient	OSHA	IARC	NTP
name			
2-Propenenitrile, polymer		3	
with Ethenylbenzene			
Titanium dioxide		2B	
Carbon black		2B	
Styrene		2B	

Reproductive toxicity

Conclusion/Summary : Mixture.Not fully tested.

Teratogenicity

Conclusion/Summary : Mixture.Not fully tested.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

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. No known significant

effects or critical hazards.

Inhalation : No known significant effects or critical hazards. No known significant

12/20



MED. BEIGE SUBSTRATE

Version Number 1.5 Page 13 of 20 Revision Date 10/19/2016 Print Date 11/08/2016

effects or critical hazards.

Skin contact: No known significant effects or critical hazards. No known significant

effects or critical hazards.

Ingestion: No known significant effects or critical hazards. 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 : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Mixture.Not fully tested.

General : No known significant effects or critical hazards. Contains material that

can cause target organ damage.

Carcinogenicity : No known significant effects or critical hazards. Contains material

which may cause cancer, based on animal data. Risk of cancer

depends on duration and level of exposure.

Mutagenicity: No known significant effects or critical hazards. No known significant

effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards. No known significant

effects or critical hazards.

Developmental effects : No known significant effects or critical hazards. No known significant

effects or critical hazards.

Fertility effects : No known significant effects or critical hazards. No known significant

effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates



MED. BEIGE SUBSTRATE

Version Number 1.5 Revision Date 10/19/2016 Page 14 of 20 Print Date 11/08/2016

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Titanium dioxide			
	Acute LC50 > 1,000,000 μg/l	Fish - Fish	96 h
	Marine water		
	Acute LC50 > 1,000 mg/l Fresh	Fish - Fish	96 h
	water		
	Acute LC50 13 mg/l Fresh water	Aquatic invertebrates.	48 h
		Daphnia	
	Acute LC50 6.5 mg/l Fresh water	Aquatic invertebrates.	48 h
		Daphnia	
	Acute LC50 3 mg/l Fresh water	Aquatic invertebrates.	48 h
		Crustaceans	
	Acute LC50 15.9 mg/l Fresh water	Aquatic invertebrates.	48 h
		Crustaceans	
	Acute LC50 3.6 mg/l Fresh water	Aquatic invertebrates.	48 h
		Crustaceans	
	Acute LC50 11 mg/l Fresh water	Aquatic invertebrates.	48 h
		Crustaceans	
	Acute LC50 13.4 mg/l Fresh water	Aquatic invertebrates.	48 h
		Crustaceans	
	Acute EC50 27.8 mg/l Fresh water	Aquatic invertebrates.	48 h
		Daphnia	
	Acute EC50 19.3 mg/l Fresh water	Aquatic invertebrates.	48 h
		Daphnia	
	Acute EC50 35.306 mg/l Fresh	Aquatic invertebrates.	48 h
	water	Daphnia	
Carbon black			
	Acute EC50 37.563 mg/l Fresh	Aquatic invertebrates.	48 h
	water	Daphnia	
	Acute LC50 61.547 mg/l Fresh	Aquatic invertebrates.	48 h
	water	Daphnia	
Styrene			
	Acute LC50 9,900 μg/l Fresh water	Fish - Fish	96 h
	Acute LC50 9.1 mg/l Marine water	Fish - Fish	96 h
	Acute LC50 4,020 μg/l Fresh water	Fish - Fish	96 h



MED. BEIGE SUBSTRATE

Version Number 1.5 Revision Date 10/19/2016 Page 15 of 20 Print Date 11/08/2016

	Acute LC50 4.7 mg/l Fresh water	Fish - Fish	96 h
	Acute LC50 4,080 µg/l Fresh water	Fish - Fish	96 h
	Acute LC50 23,000 µg/l Fresh	Aquatic invertebrates.	48 h
	water	Daphnia	
	Acute EC50 4,700 µg/l Fresh water	Aquatic invertebrates.	48 h
		Daphnia	
	Acute LC50 59,000 µg/l Fresh	Aquatic invertebrates.	48 h
	water	Daphnia	
	Acute LC50 52,000 µg/l Marine	Aquatic invertebrates.	48 h
	water	Crustaceans	
	Acute EC50 33 mg/l Fresh water	Aquatic plants - Algae	96 h
	Acute EC50 720 µg/l Fresh water	Aquatic plants - Algae	96 h
	Acute EC50 1,400 µg/l Fresh water	Aquatic plants - Algae	72 h
	Acute EC50 78,000 µg/l Marine	Aquatic plants - Algae	96 h
	water		
	Acute NOEC 63 µg/l Fresh water	Aquatic plants - Algae	4 d
MED. BEIGE SUBSTRATE			
Remarks - Acute - Aquatic	Chemicals are not readily available as	s they are bound within the	polymer matrix.
invertebrates.:			

Conclusion/Summary

: Chemicals are not readily available as they are bound within the

polymer matrix.

Persistence and degradability

Conclusion/Summary : Chemicals are not readily available as they are bound within the

polymer matrix.

Conclusion/Summary : Chemicals are not readily available as they are bound within the

polymer matrix.

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Titanium dioxide		352.00	low
Styrene	2.96	13.49	low

Mobility in soil

Soil/water partition coefficient

(KOC)

Not available.

Other adverse effects

No known significant effects or critical hazards. No known significant effects or critical hazards.

Section 13. Disposal considerations



MED. BEIGE SUBSTRATE

Version Number 1.5 Revision Date 10/19/2016 Page 16 of 20 Print Date 11/08/2016

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. 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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

<u>United States - RCRA Acute hazardous waste "P" List:</u> Not listed

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

Section 14. Transport information

U.S. DOT Classification : Not regulated for transportation.

ICAO/IATA : Not classified as dangerous good under transport regulations.

IMO/IMDG (maritime) : Not classified as dangerous good under transport regulations.

Section 15. Regulatory information

U.S. Federal regulations : United States - TSCA 12(b) - Chemical export notification: None



MED. BEIGE SUBSTRATE

Version Number 1.5 Revision Date 10/19/2016

Page 17 of 20 Print Date 11/08/2016

of the components are listed.

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 Acrylonitrile

United States - EPA Clean water act (CWA) section 311 -

Hazardous substances: 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)

Hazardous Air Pollutants (HAPs)

Clean Air Act Section 602 Class I

Substances

Clean Air Act Section 602 Class II

Substances

DEA List I Chemicals (Precursor

Chemicals)

DEA List II Chemicals (Essential

Chemicals)

Not listed

Not listed

Not listed

Not listed

Not listed

US. EPA CERCLA Hazardous Substances (40 CFR 302)



MED. BEIGE SUBSTRATE

Version Number 1.5 Page 18 of 20 Revision Date 10/19/2016 Print Date 11/08/2016

not applicable

SARA 311/312

Classification : Not applicable.

Composition/information on ingredients

Name	%	Classification
2-Propenenitrile, polymer with	50 - 75	AH
Ethenylbenzene		
Carbon black	0.1 - 0.3	СН
Styrene	0.1 - 0.3	F, AH, CH
-		

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Rutile, antimony chromium buff	68186-90-3	3 - 5
requirements	Styrene	100-42-5	0.1 - 0.3
Supplier notification	Styrene	100-42-5	0.1 - 0.3
	Rutile, antimony chromium buff	68186-90-3	3 - 5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed:

Titanium dioxide Calcium carbonate

New York : The following components are listed:

Styrene

New Jersey : The following components are listed:

2-Propenenitrile, polymer with Ethenylbenzene

Calcium carbonate Titanium dioxide Carbon black Styrene

Pennsylvania: The following components are listed:

Calcium carbonate



MED. BEIGE SUBSTRATE

Version Number 1.5 Revision Date 10/19/2016 Page 19 of 20 Print Date 11/08/2016

Titanium dioxide

Carbon black

Styrene

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

United States inventory (TSCA 8b) : All components are listed or exempted.

Canada inventory : All components are listed or exempted.

International regulations

International lists : Australia inventory (AICS): Not determined.

Taiwan inventory (CSNN): Not determined.

Malaysia Inventory (EHS Register): Not determined. EINECS: All components are listed or exempted.

Japan inventory: Not determined.

China inventory (IECSC): Not determined.

Korea inventory: All components are listed or exempted.

New Zealand Inventory of Chemicals (NZIoC): Not determined.

Philippines inventory (PICCS): Not determined.

Chemical Weapons Convention

List Schedule I Chemicals

Chemical Weapons Convention

List Schedule II Chemicals

Chemical Weapons Convention

List Schedule III Chemicals

Not listed

Not listed

Not listed

Section 16. Other information

History

Date of printing: 11/08/2016Date of issue/Date of revision: 10/19/2016Date of previous issue: 10/22/2014

Version : 1.5

Key to abbreviations: ATE = Acute Toxicity Estimate
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



MED. BEIGE SUBSTRATE

Version Number 1.5 Revision Date 10/19/2016 Page 20 of 20 Print Date 11/08/2016

LogPow = logarithm of the octanol/water partition coefficient

MARPOL 73/78 = 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

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named 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.