PolyOne Chromatics

Version Number 1.1 Revision Date 07/31/2017 Page 1 of 15 Print Date 11/16/2018

SAFETY DATA SHEET

T669.6 FEP HF CC ULTRA BLUE

Section 1. Identification		
GHS product identifier Chemical name CAS number Other means of identification Product type	:	T669.6 FEP HF CC ULTRA BLUE Mixture Mixture CC01060787 solid
<u>Relevant identified uses of the subs</u> Product use	stance :	or mixture and uses advised against Industrial applications. Plastics.
Supplier's details	:	Colorant Chromatics Chromatics, Inc. 19 Francis J. Clarke Circle, Bethel, CT 06801, USA
		+1 800 242 2296
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. Fluoropolymers heated above 350 C can evolve hydrogen fluoride and carbonyl fluoride as degradation products. Processing at elevated temperatures may release fumes that can cause polymer fume fever. The end-user (fabricator) should take necessary precautions (mechanical ventilation, local exhaust, respiratory protection, etc.) to protect employees from exposure to any vapors or dusts that may be released during heating or fabrication. See Sections 8 and 11 for special precautions. 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.

PolyOne Colorant Chromatics

Version Number 1.1 Revision Date 07/31/2017 Page 2 of 15 Print Date 11/16/2018

GHS label elements		
Signal word	:	No signal word.
Hazard statements	:	No known significant effects or critical hazards.
<u>Precautionary statements</u> General		Not applicable.
Prevention	1	**
	•	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	:	Mixture
Chemical name	:	Mixture
Other means of identification	:	CC01060787

CAS number/other identifiers

Ingredient name	%	CAS number
Cobalt aluminate blue spinel (C.I. Pigment Blue 28)	10 - 30	1345-16-0
Titanium dioxide	0.1 - 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

PolyOne Colorant Chromatics

Version Number 1.1	Page 3 of 15
Revision Date 07/31/2017	Print Date 11/16/2018

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.	
Skin contact	: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.	
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.	
Most important symptoms/effects, acute and delayed		

Potential acute health effects

Eye contact Inhalation Skin contact Ingestion <u>Over-exposure signs/symptoms</u>	:	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
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	:	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.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media

: In case of fire, use water spray (fog), foam, dry chemical or CO_2 .

PolyOne Colorant Chromatics

Version Number 1.1 Revision Date 07/31/2017 Page 4 of 15 Print Date 11/16/2018

Unsuitable extinguishing media	:	None known.
Specific hazards arising from the chemical	:	No specific fire or explosion hazard.
Hazardous thermal decomposition products	:	Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds
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 For emergency responders	:	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. 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 ai	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.

PolyOne Colorant Chromatics

Version Number 1.1 Revision Date 07/31/2017

Page 5 of 15 Print Date 11/16/2018

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.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
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
Cobalt aluminate blue spinel (C.I. Pigment Blue 28)	ACGIH TLV (1994-09-01) as Co TLV-TWA: Threshold Limit Value - Time weighted average PEL:
	Permissible Exposure Level 0.02 mg/m3
Appropriate engineering controls :	Good general ventilation should be sufficient to control worker

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

PolyOne Colorant Chromatics

Version Number 1.1 Revision Date 07/31/2017 Page 6 of 15 Print Date 11/16/2018

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 Eye/face protection	:	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. 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 Other skin 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. Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks
Respiratory protection	:	involved and should be approved by a specialist before handling this product.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	:	solid [Pellets.]
Color	:	BLUE
Odor	:	Not available.
Odor threshold	:	Not available.

PolyOne Colorant Chromatics

Version Number 1.1 Revision Date 07/31/2017 Page 7 of 15 Print Date 11/16/2018

	Not available.
	Not available.
:	Not available.
•	
:	Not available.
:	Lower: Not available.
	Upper: Not available.
:	Not available.
:	Not available.
:	Not available.
:	Not available.
:	Not available.
:	Not available.
:	Not available.
:	Not available.
:	Not available.
:	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).
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

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

PolyOne Colorant Chromatics

Version Number 1.1 Revision Date 07/31/2017 Page 8 of 15 Print Date 11/16/2018

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Titanium dioxide				
	LC50 Inhalation	Rat - Male	6.82 Mg/l	4 h
	LD50 Dermal	Rabbit	> 5,000 mg/kg	-
Cobalt aluminate blue spinel (C.I. Pigment Blue 28)				
Conclusion/Summary	y : Mixture.Not fully tested.			

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Titanium dioxide	Skin - Mild	Human		72 hrs	-
	irritant				
Conclusion/Summary					
Skin		lixture.Not fi			
Eyes		lixture.Not fu			
Respiratory	: N	lixture.Not fu	illy tested.		
<u>Sensitization</u>					
Conclusion/Summary					
Skin		lixture.Not fi			
Respiratory	: N	lixture.Not fu	illy tested.		
Mutagenicity					
Conclusion/Summary	: N	lixture.Not fu	ally tested.		
Carcinogenicity					
Conclusion/Summary	: N	lixture.Not fu	Illy tested.		
Classification	-				
Product/ingredient	OSHA	IARC	NTP		
name					
Titanium dioxide		2B			
Cobalt aluminate blue					
spinel (C.I. Pigment Blue					
28)					

Teratogenicity

PolyOne Colorant Chromatics

Version Number 1.1 Revision Date 07/31/2017 Page 9 of 15 Print Date 11/16/2018

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 likely routes of exposure	:	Not available.				
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 as well as 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.				
		9/15				

PolyOne. Colorant Chromatics

:

:

:

Version Number 1.1 Revision Date 07/31/2017 Page 10 of 15 Print Date 11/16/2018

Carcinogenicity Mutagenicity Teratogenicity Developmental effects Fertility effects No known significant effects or critical hazards.

No known significant effects or critical hazards.

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

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

Numerical measures of toxicity

Acute toxicity estimates

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 water	Fish - Fish	96 h
	Acute LC50 13 mg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute LC50 6.5 mg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute LC50 3 mg/l Fresh water	Aquatic invertebrates. Crustaceans	48 h
	Acute LC50 15.9 mg/l Fresh water	Aquatic invertebrates. Crustaceans	48 h
	Acute LC50 3.6 mg/l Fresh water	Aquatic invertebrates. Crustaceans	48 h
	Acute LC50 11 mg/l Fresh water	Aquatic invertebrates. Crustaceans	48 h
	Acute LC50 13.4 mg/l Fresh water	Aquatic invertebrates. Crustaceans	48 h
	Acute EC50 27.8 mg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute EC50 19.3 mg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute EC50 35.306 mg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
T669.6 FEP HF CC ULTRA	BLUE	· •	•

PolyOne Colorant Chromatics

Version Number 1.1 Revision Date 07/31/2017

Page 11 of 15 Print Date 11/16/2018

Remarks - Acute - Aquatic invertebrates.:	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.
Persistence and degradability	<u>/</u>
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		-	low

Mobility in soil

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

PolyOne Colorant Chromatics

Version Number 1.1 Revision Date 07/31/2017 Page 12 of 15 Print Date 11/16/2018

U.S.DOT 49CFR Ground/Air/Water	:	Not regulated for transportation.
International Air ICAO/IATA	:	Consult mode specific transport rules
International Water IMO/IMDG	:	Consult mode specific transport rules

Section 15. Regulatory information

U.S. Federal regulations	:	United States - TSCA 12(b) - Chemical export notification: The following components are listed: 1-Propene, 1,1,2,3,3,3-hexafluoro-, polymer with 1,1,2,2-tetrafluoroethene
		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: Not listed
		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

PolyOne Colorant Chromatics

Version Number 1.1 Revision Date 07/31/2017 Page 13 of 15 Print Date 11/16/2018

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)	:	Listed
Clean Air Act Section 602 Class I	:	Not listed
Substances Clean Air Act Section 602 Class II	:	Not listed
Substances		NT - 11 - 1
DEA List I Chemicals (Precursor Chemicals)	:	Not listed
DEA List II Chemicals (Essential	:	Not listed
Chemicals)		

US. EPA CERCLA Hazardous Substances (40 CFR 302)

not applicable

SARA 311/312

Classification

: Not applicable.

Composition/information on ingredients

Name	%	Classification
Titanium dioxide	0.1 - 1	СН
Cobalt aluminate blue spinel (C.I. Pigment Blue 28)	10 - 30	СН

SARA 313

	Product name	CAS number	%
Form R - Reporting	Cobalt aluminate blue spinel	1345-16-0	10 - 30
requirements	(C.I. Pigment Blue 28)		
Supplier notification	Cobalt aluminate blue spinel	1345-16-0	10 - 30
	(C.I. Pigment Blue 28)		

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	: None of t	he components are listed.
New York	: None of t	he components are listed.
New Jersey	: The follo	wing components are listed:
	Cobalt a	luminate blue spinel (C.I. Pigment Blue 28)

PolyOne Chromatics

Version Number 1.1 Revision Date 07/31/2017 Page 14 of 15 Print Date 11/16/2018

Pennsylvania	:	Titanium dioxide The following components are listed: Titanium dioxide Cobalt aluminate blue spinel (C.I. Pigment Blue 28)
<u>California Prop. 65</u> WARNING: This product contains a c	hemi	cal 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		
<u>Inventory list</u>		
Australia	:	All components are listed or exempted.
Canada	:	All components are listed or exempted.
China	:	All components are listed or exempted.
Europe inventory	:	All components are listed or exempted.
Japan	:	All components are listed or exempted.
New Zealand	:	All components are listed or exempted.
Philippines	:	All components are listed or exempted.
Republic of Korea	:	All components are listed or exempted.
Taiwan	:	All components are listed or exempted.
Turkey	:	Not determined.
United States	:	All components are listed or exempted.

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 are not required on SDSs 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 mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868. The customer is responsible for determining the PPE code for this material.

<u>History</u>

Date of printing

11/16/2018

:

PolyOne Chromatics

Version Number 1.1 Revision Date 07/31/2017 Page 15 of 15 Print Date 11/16/2018

Date of issue/Date of revision Date of previous issue Version	::	07/31/2017 11/11/2015 1.1
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 = Internediate 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

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.