FDE 6356 PRE-COLOR 2

Version Number 1.0 Revision Date 03/10/2017 Page 1 of 14 Print Date 03/15/2017

SAFETY DATA SHEET

FDE 6356 PRE-COLOR 2

Section 1. Identification	on	
GHS product identifier Chemical name CAS number Other means of identification Product type	:	FDE 6356 PRE-COLOR 2 Mixture Mixture CC10258533 solid
Relevant identified uses of the subs Product use	stance :	e or mixture and uses advised against 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.
Classification of the substance or mixture	:	Not classified.
GHS label elements		
Signal word	:	No signal word.
		1/14

FDE 6356 PRE-COLOR 2

Version Number 1.0 Revision Date 03/10/2017 Page 2 of 14 Print Date 03/15/2017

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	:	Mixture
Chemical name	:	Mixture
Other means of identification	:	CC10258533

CAS number/other identifiers

Ingredient name	%	CAS number
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

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.

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FDE 6356 PRE-COLOR 2

Version Number 1.0	Page 3 of 14
Revision Date 03/10/2017	Print Date 03/15/2017

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

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 medica	al attention	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 witho suitable training.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media Unsuitable extinguishing media	:	In case of fire, use water spray (fog), foam, dry chemical or $\rm CO_2$. None known.
Specific hazards arising from the chemical	:	No specific fire or explosion hazard.



FDE 6356 PRE-COLOR 2

Version Number 1.0 Revision Date 03/10/2017

Page 4 of 14 Print Date 03/15/2017

Hazardous thermal decomposition products	:	No specific data.
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	ent 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).
Advice on general occupational	:	Eating, drinking and smoking should be prohibited in areas where this

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FDE 6356 PRE-COLOR 2

Version Number 1.0 Revision Date 03/10/2017	Page 5 of 14 Print Date 03/15/2017
hygiene	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
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
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FDE 6356 PRE-COLOR 2

Version Number 1.0	Page 6 of 14
Revision Date 03/10/2017	Print Date 03/15/2017

Eye/face protection	:	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	:	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	:	solid [Pellets.]
Color	:	BROWN
Odor	:	Faint odor.
Odor threshold	:	Not available.
рН	:	Not available.
Melting point	:	Not available.
Boiling point	:	Not available.
Flash point	:	Not available.
Burning time	:	Not available.
Burning rate	:	Not available.
Evaporation rate	:	Not available.
Flammability (solid, gas)	:	Not available.
Lower and upper explosive	:	Lower: Not available.
(flammable) limits		Upper: Not available.
Vapor pressure	:	Not available.

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FDE 6356 PRE-COLOR 2

Version Number 1.0 Revision Date 03/10/2017

Page 7 of 14 Print Date 03/15/2017

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).
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

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	-
Conclusion/Summary	: Mixtu	re.Not fully tested.		

Conclusion/Summary

Mixture.Not fully tested.

Irritation/Corrosion



FDE 6356 PRE-COLOR 2

Version Number 1.0 Revision Date 03/10/2017 Page 8 of 14 Print Date 03/15/2017

Product/ingredient name	Result	Species	Score	Exposure	Observation
Titanium dioxide	Skin - Mild irritant	Human		72 hrs	-
Conclusion/Summary Skin Eyes Respiratory	: N : N	/ixture.Not fu /ixture.Not fu /ixture.Not fu	illy tested.		
Sensitization					
Conclusion/Summary Skin Respiratory		Лixture.Not fu Лixture.Not fu			
Mutagenicity					
Conclusion/Summary	: N	Aixture.Not fu	ally tested.		
Carcinogenicity					
Conclusion/Summary	: N	Aixture.Not fu	ally tested.		
<u>Reproductive toxicity</u>					
Conclusion/Summary	: N	Aixture.Not fu	ally tested.		
Teratogenicity					
Conclusion/Summary	: N	Aixture.Not fu	ally tested.		
Specific target organ toxicity Not available.	y (single exposi	ure)			
Specific target organ toxicit Not available.	y (repeated exp	<u>oosure)</u>			
Aspiration hazard Not available.					
Information on likely routes exposure	of : N	Vot available.			
Potential acute health effects					
Eye contact	: N	Jo known sigi	nificant effect	s or critical hazards	5.

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FDE 6356 PRE-COLOR 2

Version Number 1.0 Revision Date 03/10/2017 Page 9 of 14 Print Date 03/15/2017

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

:	Not available. Not available.
:	Not available. Not available.
:	Mixture.Not fully tested.
: : : : : : :	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



FDE 6356 PRE-COLOR 2

Version Number 1.0 Revision Date 03/10/2017

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. Crustaceans	48 h
	Acute EC50 27.8 mg/l Fresh water		48 h
	Acute EC30 27.8 mg/1 Fresh water	Aquatic invertebrates. Daphnia	40 11
	Acute EC50 19.3 mg/l Fresh water	Aquatic invertebrates.	48 h
	Acute EC30 19.5 llig/1 Flesh water	Daphnia	40 11
	Acute EC50 35.306 mg/l Fresh	Aquatic invertebrates.	48 h
	•	Daphnia	40 11
FDE 6356 PRE-COLOR 2	water	Dapinna	
Remarks - Acute - Aquatic	Chemicals are not readily available a	s they are bound within the	nolymer metrix
invertebrates.:		is uney are bound wrunn the	porymer maurx.
Conclusion/Summary	Chemicals are not readil	y available as they are bou	nd within the
Conclusion/Summary	polymer matrix.	ly available as uney are bou	
	porymer maura.		
Persistence and degradability	v		
	<u>-</u>		
Conclusion/Summary	: Chemicals are not readil polymer matrix.	y available as they are bou	nd within the
Conclusion/Summary	: Chemicals are not readil polymer matrix.	ly available as they are bou	nd within the

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Titanium dioxide		-	low
40/44			



FDE 6356 PRE-COLOR 2

Version Number 1.0 Revision Date 03/10/2017

Page 11 of 14 Print Date 03/15/2017

Mobility in soil

Soil/water partition coefficient:Not available.(KOC):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 Classification	:	Not regulated for transportation.
ICAO/IATA	:	Not classified as dangerous goods under transport regulations.
IMO/IMDG (maritime)	:	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. 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
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FDE 6356 PRE-COLOR 2

Version Number 1.0				
Revision Date	03/10/2017			

Page 12 of 14 Print Date 03/15/2017

		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
		release prevention - Toxic substances: Not listed
		United States - Department of commerce - Precursor chemical:
		Not listed
12(b)		Not listed
14(1)	•	

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 Chemicals)	:	Not listed

US. EPA CERCLA Hazardous Substances (40 CFR 302)

not applicable

SARA 311/312

Classification

: Not applicable.

Composition/information on ingredients



FDE 6356 PRE-COLOR 2

Version Number 1.0 Revision Date 03/10/2017 Page 13 of 14 Print Date 03/15/2017

Name	%	Classification
Titanium dioxide	0.1 - 1	СН

SARA 313

	Product name	CAS number	%
Form R - Reporting	Rutile, antimony chromium	68186-90-3	1 - 5
requirements	buff		
Supplier notification	Rutile, antimony chromium	68186-90-3	1 - 5
	buff		

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.

hemi	None of the components are listed. None of the components are listed. None of the components are listed. None of the components are listed.
:	All components are listed or exempted.
:	Not determined.
:	 Australia inventory (AICS): Not determined. Malaysia Inventory (EHS Register): Not determined. EINECS: Not determined. Japan inventory: Not determined. China inventory (IECSC): Not determined. Korea inventory: Not determined. New Zealand Inventory of Chemicals (NZIoC): Not determined. Philippines inventory (PICCS): Not determined. Taiwan Chemical Substances Inventory (TCSI): Not determined.
::	Not listed Not listed
	: interminentiation: intermedi



FDE 6356 PRE-COLOR 2

Version Number 1.0 Revision Date 03/10/2017 Page 14 of 14 Print Date 03/15/2017

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	:	03/15/2017
Date of issue/Date of revision	:	03/10/2017
Date of previous issue	:	00/00/0000
Version	:	1.0
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

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