### **RESILIENCE HC8230 BLUE**

Version Number 1.1 Revision Date 10/19/2015 Page 1 of 15 Print Date 11/24/2015

# SAFETY DATA SHEET

### **RESILIENCE HC8230 BLUE**

Section 1. Identification			
GHS product identifier	:	RESILIENCE HC8230 BLUE	
Chemical name	:	Mixture	
CAS number	:	Mixture	
Other means of identification	:	VC10010842	
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).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 for health effects. All ingredients are bound in a PVC polymer matrix and potential for hazardous exposure as shipped is minimal. PVC resin is manufactured from Vinyl Chloride Monomer (VCM). PVC resin manufacturers take special efforts to strip residual VCM from their resins. Residual VCM in the resin is typically below 8.5 ppm. However, VCM is a known carcinogen. 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.



### **RESILIENCE HC8230 BLUE**

Version Number 1.1 Revision Date 10/19/2015 Page 2 of 15 Print Date 11/24/2015

GHS label elements		
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	:	Mixture
Chemical name	:	Mixture
Other means of identification	:	VC10010842

#### CAS number/other identifiers

Ingredient name	%	CAS number
Titanium dioxide	5 - 10	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.



## **RESILIENCE HC8230 BLUE**

Version Number 1.1	Page 3 of 15
Revision Date 10/19/2015	Print Date 11/24/2015

		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	<u>entio</u>	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. Fire-fighting measures

#### **Extinguishing media**

Suitable extinguishing media	:	In case of fire, use water spray (fog), foam, dry chemical or CO <sub>2</sub> .
Unsuitable extinguishing media	:	None known.

<u>vOne</u>

### **RESILIENCE HC8230 BLUE**

Version Number 1.1 Revision Date 10/19/2015 Page 4 of 15 Print Date 11/24/2015

Specific hazards arising from the chemical	:	No specific fire or explosion hazard.
Hazardous thermal decomposition products	:	May emit Hydrogen Chloride (HCl). Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides halogenated compounds 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 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 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".
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 contain	ment 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.



### **RESILIENCE HC8230 BLUE**

Version Number 1.1 Revision Date 10/19/2015

#### Page 5 of 15 Print Date 11/24/2015

## 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
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,

<u>20ne</u>.

### **RESILIENCE HC8230 BLUE**

Version Number 1.1 Revision Date 10/19/2015

Page 6 of 15 Print Date 11/24/2015

		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	:	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	:	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	:	BLUE
Odor	:	Not available.
Odor threshold	:	Not available.
рН	:	Not available.
Melting point	:	Not available.

ne

### **RESILIENCE HC8230 BLUE**

Version Number 1.1 Revision Date 10/19/2015 Page 7 of 15 Print Date 11/24/2015

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.
Vapor density	:	Not available.
Relative density	:	Not available.
Solubility	:	Not available.
Solubility in water	:	Not available.
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	:	Avoid contact with acetal homopolymers and acetyl homopolymers during processing.
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



## **RESILIENCE HC8230 BLUE**

Version Number 1.1 Revision Date 10/19/2015 Page 8 of 15 Print Date 11/24/2015

Product/ingredient name	Result	Species		Dose	Exposure
Titanium dioxide					1
	LC50 Inhalation	Rat - Male		6.82 Mg/l	4 h
	LD50 Dermal	Rabbit		> 5,000 mg/kg	-
Conclusion/Summary	: Mixt	ure.Not fully	ested.		
Irritation/Corrosion					
Conclusion/Summary					
Skin		ure.Not fully t			
Eyes		ure.Not fully t			
Respiratory	: Mixt	ure.Not fully t	ested.		
Sensitization					
Conclusion/Summary					
Skin		ure.Not fully t			
Respiratory	: Mixt	ure.Not fully t	ested.		
<u>Mutagenicity</u>					
Conclusion/Summary	: Mixt	ure.Not fully (	ested.		
<b>Carcinogenicity</b>					
Conclusion/Summary <u>Classification</u>	: Mixt	ure.Not fully f	ested.		
Product/ingredient	OSHA I	ARC	NTP		
name					
Titanium dioxide	2	В			
Reproductive toxicity	· · ·				
Conclusion/Summary	: Mixt	ure.Not fully t	ested.		
<b>Teratogenicity</b>					
Conclusion/Summary	: Mixt	ure.Not fully	ested.		
Specific target organ toxicity Not available.	ty (single exposure)				
Specific target organ toxicit Not available.	ty (repeated exposu	<u>re)</u>			

PolyOne.

### **RESILIENCE HC8230 BLUE**

Version Number 1.1 Revision Date 10/19/2015 Page 9 of 15 Print Date 11/24/2015

Aspiration hazard Not available.		
Information on the likely routes of exposure	:	Not available.
Potential acute health effects		
Eye contact Inhalation Skin contact Ingestion	::	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.
Symptoms related to the physical, ch	emic	cal and toxicological characteristics
Eye contact Inhalation Skin contact Ingestion Delayed and immediate effects and a Short term exposure Potential immediate effects Potential delayed effects	: : : : :	No specific data. No specific data. No specific data. No specific data. <b>Chronic effects from short and long term exposure</b> Not available. Not available.
Long term exposure Potential immediate effects Potential delayed effects <u>Potential chronic health effects</u>	:	Not available. Not available.
Conclusion/Summary	:	Mixture.Not fully tested.
General Carcinogenicity Mutagenicity Teratogenicity Developmental effects Fertility effects	::	No known significant effects or critical hazards. No known significant effects or critical hazards.

Numerical measures of toxicity

<u>Une</u>

### **RESILIENCE HC8230 BLUE**

Version Number 1.1 Revision Date 10/19/2015

Page 10 of 15 Print Date 11/24/2015

#### 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 EC50 19.3 mg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute EC50 27.8 mg/l Fresh water	Aquatic invertebrates. Daphnia	48 h
	Acute EC50 35.306 mg/l Fresh	Aquatic invertebrates.	48 h
	water	Daphnia	
	Acute LC50 3 mg/l Fresh water	Aquatic invertebrates.	48 h
		Crustacean Order	
	Acute LC50 15.9 mg/l Fresh water	Aquatic invertebrates.	48 h
		Crustacean Order	
	Acute LC50 3.6 mg/l Fresh water	Aquatic invertebrates. Crustacean Order	48 h
	Acute LC50 11 mg/l Fresh water	Aquatic invertebrates.	48 h
	_	Crustacean Order	
	Acute LC50 13.4 mg/l Fresh water	Aquatic invertebrates.	48 h
		Crustacean Order	
RESILIENCE HC8230 BLU	E		
Remarks - Acute - Aquatic		s they are bound within the	e polymer matrix.
invertebrates.			
Conclusion/Summary	: Chemicals are not readil	ly available as they are bou	nd within the

Chemicals are not readily available as they are bound within the polymer matrix.

**Persistence and degradability** 

### **RESILIENCE HC8230 BLUE**

Version Number 1.1	Page 11 of 15
Revision Date 10/19/2015	Print Date 11/24/2015

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**

<b>F</b>			
Product/ingredient name	LogPow	BCF	Potential
Titanium dioxide		352.00	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

U.S. DOT Classification	:	Not regulated for transportation.
ICAO/IATA	:	Consult mode specific transport rules
IMO/IMDG (maritime)	:	Consult mode specific transport rules

<u>PolyOne</u>

### **RESILIENCE HC8230 BLUE**

Version Number 1.1 Revision Date 10/19/2015

### Page 12 of 15 Print Date 11/24/2015

## 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
		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): Listed Quinacridone (C.I. Pigment Violet 19)
		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 Phthalocyanine Blue
		Acrylonitrile
		Vinyl chloride monomer
		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)	:	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

### **RESILIENCE HC8230 BLUE**

Version Number 1.1 Revision Date 10/19/2015 Page 13 of 15 Print Date 11/24/2015

Substances:Not listedDEA List I Chemicals (Precursor:Not listedDEA List II Chemicals (Essential:Not listedChemicals):Not listed

#### US. EPA CERCLA Hazardous Substances (40 CFR 302)

not applicable

#### SARA 311/312

Classification

Not applicable.

:

#### **Composition/information on ingredients**

Name	%	Classification
Titanium dioxide	5 - 10	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.

State regulations	
Massachusetts	: The following components are listed:
	Titanium dioxide
New York	: None of the components are listed.
New Jersey	: The following components are listed:
-	Ethene, chloro-, homopolymer
	Titanium dioxide
Pennsylvania	: The following components are listed:
•	Titanium dioxide

#### 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.

13/15

ne.

### **RESILIENCE HC8230 BLUE**

Version Number 1.1 Revision Date 10/19/2015 Page 14 of 15 Print Date 11/24/2015

Canada inventory	:	All components are listed or exempted.
International regulations		
International lists	:	<ul> <li>Australia inventory (AICS): Not determined.</li> <li>Taiwan inventory (CSNN): Not determined.</li> <li>Malaysia Inventory (EHS Register): Not determined.</li> <li>EINECS: All components are listed or exempted.</li> <li>Japan inventory: Not determined.</li> <li>China inventory (IECSC): Not determined.</li> <li>Korea inventory: Not determined.</li> <li>New Zealand Inventory of Chemicals (NZIoC): Not determined.</li> <li>Philippines inventory (PICCS): Not determined.</li> </ul>
Chemical Weapons Convention List Schedule I Chemicals	:	Not listed
Chemical Weapons Convention	:	Not listed
List Schedule II Chemicals Chemical Weapons Convention List Schedule III Chemicals	:	Not listed

## Section 16. Other information

History		
Date of printing	:	11/24/2015
Date of issue/Date of revision	:	10/19/2015
Date of previous issue	:	09/28/2015
Version	:	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 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 abovenamed supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or

ne

### **RESILIENCE HC8230 BLUE**

Version Number 1.1 Revision Date 10/19/2015 Page 15 of 15 Print Date 11/24/2015

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.