## MATERIAL SAFETY DATA SHEET UV ROYAL BLUE PVC

Version Number 1.1 Revision Date 03/23/2014

Product Use

Page 1 of 8 Print Date 3/31/2014

## 1. PRODUCT AND COMPANY IDENTIFICATION

#### POLYONE CORPORATION 33587 Walker Road, Avon Lake, OH 44012

Telephone Emergency telephone number	:	1 (440) 930-1000 or 1 (866) POLYONE CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).
Product name	:	UV ROYAL BLUE PVC
Product code	:	CC10141780
Chemical Name	:	Mixture
CAS-No.	:	Mixture

: Industrial Applications

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight percent
1,6-Hexanediamine, N,N'-bis(2,2,6,6- tetramethyl-4-piperidinyl)-,polymer with 2,4,6-trichloro-1,3,5-triazine, reaction products	70624-18-9	1 - 5
Phenol, 2-(2H-benzotriazol-2-yl)-4,6- bis(1,1-dimethylpropyl)-	25973-55-1	5 - 10
Titanium dioxide	13463-67-7	1 - 5
Calcium carbonate	1317-65-3	10 - 30

#### **3. HAZARDS IDENTIFICATION**

#### **EMERGENCY OVERVIEW**

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.

### POTENTIAL HEALTH EFFECTS

Routes of Exposure: : Inhalation, Ingestion, Skin contact

#### Acute exposure

Inhalation

: Particulates, like other inert materials can be mechanically irritating. Excessive inhalation of product vapors, especially during heating or

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# MATERIAL SAFETY DATA SHEET UV ROYAL BLUE PVC

ion Number 1.1 sion Date 03/23/2014	Page 2 Print Date 3/31/2		
Ingestion Eyes Skin	<ul> <li>processing, may be irritating to respiratory system.</li> <li>May be harmful if swallowed.</li> <li>Particulates, like other inert materials can be mechanically irritating.</li> <li>Experience shows no unusual dermatitis hazard from routine handling</li> </ul>		
Chronic exposure	: Refer to Section 11 for Toxicological Information.		
Medical Conditions       : None known.         Aggravated by Exposure:       :			
	4. FIRST AID MEASURES		
Inhalation	: Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. When symptoms persist or in all cases o doubt seek medical advice.		
Ingestion	: Do not induce vomiting without medical advice. When symptoms persist or in all cases of doubt seek medical advice.		
Eyes	: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, seek medical attention.		
Skin	: Wash off with soap and plenty of water. If skin irritation persists seek medical attention.		
	5. FIREFIGHTING MEASURES		
Flash point	: not applicable		
Flammable Limits Upper explosion limit Lower explosion limit Auto-ignition temperature Suitable extinguishing media	<ul> <li>not applicable</li> <li>not applicable</li> <li>not applicable</li> <li>Carbon dioxide blanket, Water spray, Dry powder, Foam.</li> </ul>		
Special Fire Fighting Procedures	: Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants.		
Unusual Fire/Explosion Hazards	<ul> <li>Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible. May emit Hydrogen Chloride (HCl) or Carbon Monoxide (CO) under fire conditions.</li> </ul>		
	6. ACCIDENTAL RELEASE MEASURES		
Personal precautions	: Wear appropriate personal protection during cleanup, such as impervious gloves, boots and coveralls.		
Environmental precautions	: Should not be released into the environment. The product should not		

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# MATERIAL SAFETY DATA SHEET UV ROYAL BLUE PVC

ersion Number 1.1 evision Date 03/23/2014	Page 3 of Print Date <i>3/31/201</i>
Methods for cleaning up	<ul><li>be allowed to enter drains, water courses or the soil.</li><li>Clean up promptly by sweeping or vacuum. Package all material in plastic, cardboard or metal containers for disposal.</li></ul>
	7. HANDLING AND STORAGE
Handling	: Take measures to prevent the build up of electrostatic charge. Heat only in areas with appropriate exhaust ventilation.
Storage	: Keep containers dry and tightly closed to avoid moisture absorption and contamination. Keep in a dry, cool place.
8. EX	POSURE CONTROLS/PERSONAL PROTECTION
Respiratory protection	: No personal respiratory protective equipment normally required.
Eye/Face Protection	: Safety glasses with side-shields
Hand protection	: Protective gloves
Skin and body protection	: Long sleeved clothing
Additional Protective Measures	: Safety shoes
General Hygiene Considerations	: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Engineering measures	: Heat only in areas with appropriate exhaust ventilation. Provide appropriate exhaust ventilation at machinery.
Exposure limit(s)	

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## MATERIAL SAFETY DATA SHEET **UV ROYAL BLUE PVC**

Version Number 1.1 Revision Date 03/23/2014 Page 4 of 8 Print Date 3/31/2014

Components	Value	Exposure time	Exposure type	List:
Calcium carbonate	5 mg/m3	PEL:	Respirable fraction.	OSHA Z1
	15 mg/m3	PEL:	Total dust.	OSHA Z1
	10 mg/m3	Time Weighted Average (TWA):		MX OEL
	20 mg/m3	Short Term Exposure Limit (STEL):		MX OEL
Titanium dioxide	10 mg/m3	Time Weighted Average (TWA):		ACGIH
	15 mg/m3	PEL:	Total dust.	OSHA Z1
	10 mg/m3	Time Weighted Average (TWA):	Total dust.	OSHA Z1A
	10 mg/m3	Time Weighted Average (TWA):	as Ti	MX OEL
	20 mg/m3	Short Term Exposure Limit (STEL):	as Ti	MX OEL

## 9. PHYSICAL AND CHEMICAL PROPERTIES

- Form Appearance Colour Odour Melting point/range Boiling Point: Water solubility
- : solid pellets BLUE : very faint : Not determined : not applicable : insoluble

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- Evapouration rate Specific Gravity Bulk density Vapour pressure Vapour density pН
- Not applicable : Not determined : Not established : : not applicable : not applicable : not applicable

### **10. STABILITY AND REACTIVITY**

Stability	:	The product is stable if stored and handled as prescribed.
Hazardous Polymerization	:	Will not occur.
Conditions to avoid	:	Keep away from oxidizing agents and open flame. To avoid thermal decomposition, do not overheat.
Incompatible Materials	:	Avoid contact with strong oxidizers. Also, avoid contact with acetal or acetal copolymers and with amine containing materials during processing. At processing conditions, these materials are mutually destructive and involve rapid degradation. Thoroughly purge and mechanically clean processing equipment to avoid even trace quantities of these materials from coming in contact with each other. Prevent cross contamination of feedstocks.
Hazardous decomposition products	:	Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), hydrogen chloride (HCl), other hazardous materials, and smoke are all possible. Prolonged heating (approximately 30 minutes or more) above 392 °F (200 °C) or short term heating at 482 °F (250 °C) may result in product decomposition and evolution of carbon monoxide and hydrogen chloride.

## MATERIAL SAFETY DATA SHEET UV ROYAL BLUE PVC

#### Version Number 1.1 Revision Date 03/23/2014

Page 5 of 8 Print Date 3/31/2014

## 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.

#### Toxicity Overview

This product contains the following components which in their pure form have the following characteristics:

CAS-No.	Chemical Name	Effect	Target Organ
70624-18-9	1,6-Hexanediamine, N,N'-	Irritant	Eyes, Skin, Respiratory
	bis(2,2,6,6-tetramethyl-4-		system.
	piperidinyl)-,polymer with		
	2,4,6-trichloro-1,3,5-		
	triazine, reaction products		
25973-55-1	Phenol, 2-(2H-	Systemic effects	Kidney, Liver, reproductive
	benzotriazol-2-yl)-4,6-		system.
	bis(1,1-dimethylpropyl)-		
13463-67-7	Titanium dioxide	Systemic effects	Respiratory system.
1317-65-3	Calcium carbonate	Irritant	Eyes, Skin.
		Systemic effects	Eyes, Skin, Respiratory
			system.

### LC50 / LD50

This product contains the following components which, in their pure form, have the following toxicity data:

CAS-No.	Chemical Name	Route	Value	Species
70624-18-9	1,6-Hexanediamine, N,N'-	Oral LD50	> 2,000 mg/kg	rat
	bis(2,2,6,6-tetramethyl-4-	Dermal LD50	> 3,000 mg/kg	rat
	piperidinyl)-,polymer with			
	2,4,6-trichloro-1,3,5-			
	triazine, reaction products			

Carcinogenicity

This product contains the following components which, in their pure form, have the following carcinogenicity data:

CAS-No.	Chemical Name	OSHA	IARC	NTP
13463-67-7	Titanium dioxide	no	2B	no

IARC Carcinogen Classifications:

1 - The component is carcinogenic to humans.

2A - The component is probably carcinogenic to humans.

2B - The component is possibly carcinogenic to humans.

NTP Carcinogen Classifications:

1 - The component is known to be a human carcinogen.

2 - The component is reasonably anticipated to be a human carcinogen.

### **12. ECOLOGICAL INFORMATION**

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# MATERIAL SAFETY DATA SHEET UV ROYAL BLUE PVC

Version Number 1.1 Revision Date 03/23/2014 Page 6 of 8 Print Date 3/31/2014

Persistence and degradability	: Not readily biodegradable.				
Environmental Toxicity	: Chemicals are not readily available as they are bound within the polymer matrix.				
Bioaccumulation Potential	: Chemicals are not readily available as they are bound within the polymer matrix.				
Additional advice	: no data available				
	13. DISPOSAL CONSIDERATIONS				
Product	: Like most thermoplastic plastics the product can be recycled. Where possible recycling is preferred to disposal or incineration. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations.				
Contaminated packaging	: Recycling is preferred when possible. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations.				
	14. TRANSPORT INFORMATION				
U.S. DOT Classification	: Not regulated for transportation.				
ICAO/IATA	CAO/IATA : Refer to specific regulation.				
IMO/IMDG (maritime)	: Refer to specific regulation.				
	15. REGULATORY INFORMATION				
US Regulations:					
OSHA Status	: Classified as hazardous based on components.				
TSCA Status	: All components of this product are listed on or exempt from the TSCA Inventory.				
US. EPA CERCLA Hazardous	Substances (40 CFR 302)				
not applicable					
California Proposition 65	: WARNING! This product contains a chemical known to the State of California to cause cancer.				

## MATERIAL SAFETY DATA SHEET UV ROYAL BLUE PVC

Version Number 1.1 Revision Date 03/23/2014 Page 7 of 8 Print Date 3/31/2014

SARA Title III Section 302 Extremely Hazardous Substance

Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation

SARA Title III Section 313 Toxic Chemicals:

Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation

Canadian Regulations:

National Pollutant Release Inventory (NPRI)			
Chemical Name	CAS-No.	Weight	NPRI ID#
		percent	
Phthalocyanine blue	147-14-8	5.00 - 10.00	

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

CAS-No.	
147-14-8	

DSL

All components of this product are on the Canadian Domestic Substances List (DSL) or are exempt.

National Inventories:

Australia AICS	:	Listed
China IECS	:	Listed
Europe EINECS	:	Listed
Japan ENCS	:	Not determined
Korea KECI	:	Not determined
Philippines PICCS	:	Not determined

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### **16. OTHER INFORMATION**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The

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# MATERIAL SAFETY DATA SHEET UV ROYAL BLUE PVC

Version Number 1.1 Revision Date 03/23/2014 Page 8 of 8 Print Date 3/31/2014

information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.