#### MATERIAL SAFETY DATA SHEET UV RUM RAISON PP HM

Version Number 1.1 Revision Date 03/29/2014

CAS-No.

Product Use

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#### 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 RUM RAISON PP HM
Product code	:	CC10146374
Chemical Name	:	Mixture

- : Mixture
  - : Industrial Applications

#### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight percent
Phenol, 2-(2H-benzotriazol-2-yl)-4,6-	25973-55-1	1 - 5
bis(1,1-dimethylpropyl)-		
1,6-Hexanediamine, N,N'-bis(2,2,6,6-	70624-18-9	5 - 10
tetramethyl-4-piperidinyl)-,polymer with		
2,4,6-trichloro-1,3,5-triazine, reaction		
products		
Barium sulfate	7727-43-7	1 - 5
Cadmium sulfoselenide orange (Orange 20)	12656-57-4	1 - 5
Titanium dioxide	13463-67-7	1 - 5
Iron oxide	1309-37-1	5 - 10
C.I. Pigment Red 108	58339-34-7	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

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Inhalation	: Resin particles, like other inert materials, can be mechanically irritating.
Ingestion	: May be harmful if swallowed.
Eyes	: Resin particles, like other inert materials, are mechanically irritating to
	eyes.
Skin	: Experience shows no unusual dermatitis hazard from routine handling
Chronic exposure	: Refer to Section 11 for Toxicological Information.
Medical Conditions Aggravated by Exposure:	: None known.
	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 of 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	: not applicable
Lower explosion limit	: not applicable
Auto-ignition temperature	: not applicable
Suitable extinguishing media	: Carbon dioxide blanket, Water spray, Dry powder, Foam.
Special Fire Fighting Procedures	: Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne
Universal Eine /E and a start	contaminants.
Unusual Fire/Explosion Hazards	: Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible.
	6. ACCIDENTAL RELEASE MEASURES
Personal precautions	: Wear appropriate personal protection during cleanup, such as impervious gloves, boots and coveralls.

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Environmental precautions	:	Should not be released into the environment. The product should not be allowed to enter drains, water courses or the soil.
Methods for cleaning up	:	Clean up promptly by sweeping or vacuum. Package all material in plastic, cardboard or metal containers for disposal.
		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. EXP	OSUI	RE 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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Components	Value	Exposure time	Exposure type	List:
Barium sulfate	10 mg/m3	Time Weighted Average (TWA):		ACGIH
	5 mg/m3	Recommended exposure limit (REL):	Respirable.	NIOSH
	10 mg/m3	Recommended exposure limit (REL):	Total	NIOSH
	5 mg/m3	PEL:	Respirable fraction.	OSHA Z1
	15 mg/m3	PEL:	Total dust.	OSHA Z1
	5 mg/m3	Time Weighted Average (TWA):	Respirable fraction.	OSHA Z1A
	10 mg/m3	Time Weighted Average (TWA):	Total dust.	OSHA Z1A
Cadmium sulfoselenide orange (Orange 20)	0.01 mg/m3	Time Weighted Average (TWA):	as Cd	ACGIH
-	0.002 mg/m3	Time Weighted Average (TWA):	Respirable fraction. as Cd	ACGIH
	0.005 mg/m3	Time Weighted Average (TWA):		OSHA
	0.0025 mg/m3	OSHA Action level:		OSHA
	0.002 mg/m3	Time Weighted Average (TWA):	Respirable dust. as Cd	MX OEL
	0.01 mg/m3	Time Weighted Average (TWA):	Total dust. as Cd	MX OEL
	0.2 mg/m3	Time Weighted Average (TWA):	as Se	ACGIH
	0.2 mg/m3	PEL:	as Se	OSHA Z1
	0.2 mg/m3	Time Weighted Average (TWA):	as Se	OSHA Z1A
	0.2 mg/m3	Time Weighted Average (TWA):	as Se	MX OEL
C.I. Pigment Red 108	0.01 mg/m3	Time Weighted Average (TWA):	as Cd	ACGIH
	0.002 mg/m3	Time Weighted Average (TWA):	Respirable fraction. as Cd	ACGIH
	0.005 mg/m3	Time Weighted Average (TWA):		OSHA
	0.0025 mg/m3	OSHA Action level:		OSHA
	0.002 mg/m3	Time Weighted Average (TWA):	Respirable dust. as Cd	MX OEL
	0.01 mg/m3	Time Weighted Average (TWA):	Total dust. as Cd	MX OEL
	0.2 mg/m3	Time Weighted Average (TWA):	as Se	ACGIH
	0.2 mg/m3	PEL:	as Se	OSHA Z1

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	0.2 mg/m3	Time Weighted Average	as Se	OSHA Z1A
	C	(TWA):		
	0.2 mg/m3	Time Weighted Average	as Se	MX OEL
		(TWA):	~	
	0.2 mg/m3	Recommended exposure limit (REL):	as Se	NIOSH
Iron oxide	10 mg/m3	PEL:	Fume.	OSHA Z1
	5 mg/m3	Time Weighted Average (TWA):	as Fe	MX OEL
	10 mg/m3	Short Term Exposure Limit (STEL):	as Fe	MX OEL
	5 mg/m3	Time Weighted Average (TWA):	Respirable fraction.	ACGIH
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
:	RED
:	very faint
:	Not determined
:	not applicable
:	insoluble

Evapouration rate Specific Gravity : Not determined Bulk density Bulk densityI to communicationVapour pressure: not applicableVapour density: not applicable pH

- : Not applicable : Not established

  - : 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	:	Incompatible with strong acids and oxidizing agents.
Hazardous decomposition products	:	Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible.

**11. TOXICOLOGICAL INFORMATION** 

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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
25973-55-1	Phenol, 2-(2H-	Systemic effects	Kidney, Liver, reproductive
	benzotriazol-2-yl)-4,6-		system.
	bis(1,1-dimethylpropyl)-		
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		
7727-43-7	Barium sulfate	Irritant	Respiratory system.
		Systemic effects	Eyes, Respiratory system.
12656-57-4	Cadmium sulfoselenide	Irritant	Eyes, Skin.
	orange (Orange 20)		
		Systemic effects	Liver, Kidney, central nervous
			system (CNS).
13463-67-7	Titanium dioxide	Systemic effects	Respiratory system.
1309-37-1	Iron oxide	Systemic effects	Respiratory system.
58339-34-7	C.I. Pigment Red 108	Irritant	Eyes, Skin.
		Systemic effects	Liver, central nervous system
			(CNS), Kidney.

#### 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
12656-57-4	Cadmium sulfoselenide orange (Orange 20)	yes	1	no
13463-67-7	Titanium dioxide	no	2B	no
58339-34-7	C.I. Pigment Red 108	yes	1	no

IARC Carcinogen Classifications:

1 - The component is carcinogenic to humans.

2A - The component is probably carcinogenic to humans.

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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.

#### **Additional Health Hazard Information:**

C.I. Pigment Red 108 58339-34-7 Can produce rapid and sometimes fatal pulmonary edema. Chronic absorption leads to liver and kidney damage.

	12. ECOLOGICAL INFORMATION
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	: 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

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TSCA Invento	ory.					
US. EPA CERCLA Hazardous Substances (40 CFI	R 302)					
not applicable						
	This product contains					
chemical know	California to cause cancer., WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.					
SARA Title III Section 302 Extremely Hazardous Unless specific chemicals are identified under this		s Not Applicable	under this regulatio			
SARA Title III Section 313 Toxic Chemicals:						
Unless specific chemicals are identified under this	section, this product is	s Not Applicable	under this regulatio			
Chemical Name	CAS-No	U	t percent			
CADMIUM COMPOUNDSSELENIUM COMP	-4 1.00 -					
CADMIUM COMPOUNDSSELENIUM COMP	POUNDS 58339-34	-7 10.00	- 30.00			
Canadian Regulations:						
National Pollutant Release Inventory (NPR)	[)					
Chemical Name	CAS-No.	Weight percent	NPRI ID#			
Cadmium sulfoselenide orange (Orange 20) 12656-57-4		1.00 - 5.00				
		1.00 - 5.00				
C.I. Pigment Red 108	58339-34-7	10.00 - 30.00				

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

CAS-No.
12656-57-4
58339-34-7
1309-37-1

DSL

: All components of this product are on the Canadian Domestic

10.00 - 30.00

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		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				
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 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.