MATERIAL SAFETY DATA SHEET GRAY UV

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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	:	GRAY UV
Product code	:	CC10128768
Chemical Name	:	Mixture
CAS-No.	:	Mixture
Product Use	:	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	5 - 10
Carbon black	1333-86-4	1 - 5
Rutile, antimony chromium buff	68186-90-3	1 - 5
Silica, amorphous	7631-86-9	1 - 5
Titanium dioxide	13463-67-7	30 - 60

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

: Resin particles, like other inert materials, can be mechanically irritating.



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 May be harmful if swallowed. Resin particles, like other inert materials, are mechanically irritating teyes. Experience shows no unusual dermatitis hazard from routine handling Refer to Section 11 for Toxicological Information. None known. 4. FIRST AID MEASURES Move to fresh air in case of accidental inhalation of fumes from
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: 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.
: Do not induce vomiting without medical advice. When symptoms persist or in all cases of doubt seek medical advice.
: Rinse immediately with plenty of water, also under the eyelids, for a least 15 minutes. If eye irritation persists, seek medical attention.
: Wash off with soap and plenty of water. If skin irritation persists seek medical attention.
5. FIREFIGHTING MEASURES
: not applicable
: not applicable
: not applicable
not applicableCarbon dioxide blanket, Water spray, Dry powder, Foam.
: Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants.
 Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible.
ACCIDENTAL RELEASE MEASURES
: Wear appropriate personal protection during cleanup, such as impervious gloves, boots and coveralls.
: Should not be released into the environment. The product should not be allowed to enter drains, water courses or the soil.



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Methods for cleaning up	:	Clean up promptly by sweeping or vacuum. Package all material in plastic, cardboard or metal containers for disposal.
		plastic, cardooard of fictal 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. EX	POSU	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:
Carbon black	3.5 mg/m3	Recommended exposure limit (REL):		NIOSH
	0.1 mg/m3	Recommended exposure limit (REL):		NIOSH
	3.5 mg/m3	PEL:		OSHA Z1
	3.5 mg/m3	Time Weighted Average (TWA):		OSHA Z1A
	3.5 mg/m3	Time Weighted Average (TWA):		MX OEL
	7 mg/m3	Short Term Exposure Limit (STEL):		MX OEL
	3 mg/m3	Time Weighted Average (TWA):	Inhalable fraction.	ACGIH
Rutile, antimony chromium buff	0.5 mg/m3	Recommended exposure limit (REL):	as Cr	NIOSH
	0.5 mg/m3	PEL:	as Cr	OSHA Z1
	0.5 mg/m3	Time Weighted Average (TWA):	as Sb	ACGIH
	0.5 mg/m3	Recommended exposure limit (REL):	as Sb	NIOSH
	0.5 mg/m3	PEL:	as Sb	OSHA Z1
	0.5 mg/m3	Time Weighted Average (TWA):	as Sb	OSHA Z1A
	0.5 mg/m3	Time Weighted Average (TWA):	as Sb	MX OEL
Silica, amorphous	6 mg/m3	Recommended exposure limit (REL):		NIOSH
	0.8 mg/m3	Time Weighted Average (TWA):		Z3
	10 mg/m3	Time Weighted Average (TWA):	Inhalable particulate.	MX OEL
	3 mg/m3	Time Weighted Average (TWA):	Respirable dust.	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

: solid : pellets : GREY Evapouration rate:Not applicableSpecific Gravity:Not determined Bulk density

: Not established

Vapour pressure

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Odour

Boiling Point:	: no	ot determined ot applicable isoluble	Vapour density pH		not applicable not applicable
	1	0. STABILITY AND RI	EACTIVITY		
Stability	:	The product is stable if	stored and handled as j	ores	cribed.
Hazardous Polymerization	:	Will not occur.			
Conditions to avoid	:	Keep away from oxidiz decomposition, do not o	00	ime.	To avoid thermal
Incompatible Materials	:	Incompatible with stror	ng acids and oxidizing a	igen	ts.
Hazardous decomposition products	:	Carbon dioxide (CO2), (NOx), other hazardous			e

: very faint

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		
1333-86-4	Carbon black	Systemic effects	Eyes, Respiratory system.
68186-90-3	Rutile, antimony	Irritant	Eyes, Skin, Respiratory
	chromium buff		system.
7631-86-9	Silica, amorphous	Irritant	Eyes, Respiratory system.
13463-67-7	Titanium dioxide	Systemic effects	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			
1333-86-4	Carbon black	Oral LD50	>15,400 mg/kg	rat
		Dermal LD50	> 3 gm/kg	rabbit



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: not applicable

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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.

Additional Health Hazard Information:

Carbon black 1333-86-4 Carcinogenicity: Many inhalation toxicologists believe that the tumor response observed in the referenced rat studies is species specific and does not correlate to human exposure. However, the IARC evaluation in Monograph Volume 65, issued in April 1996 concluded that, "There is sufficient evidence in experimental animals for the carcinogenicity of carbon black". Based on this evaluation, along with their evaluation of inadequate evidence of carcinogenicity in humans, IARC's overall evaluation is that "Carbon Black is possibly carcinogenic to humans (Group 2B). The IARC 2B listing only pertains to airborne, unbound carbon black particles of respirable size. Carbon Black has not been listed as a carcinogen by the National Toxicology Program (NTP) or the Occupational Safety and Health Administration (OSHA). The National Institute of Occupational Safety and Health (NIOSH) criteria document on carbon black recommends that only carbon black with PAH (polynuclear aromatic hydrocarbon) levels greater than 0.1% be considered suspect carcinogens.

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 availableIJSPOSAL CONSIDERATIONSProduct: 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.	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 Image: Image			
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	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	Persistence and degradability	:	Not readily biodegradable.
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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	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	Bioaccumulation Potential	:	
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			_ ,	5. DISFUSAL CONSIDERATIONS

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Contaminated packaging						
	14. TRANSPORT INFO	RMATION				
U.S. DOT Classification	Not regulated for transpo	ortation.				
ICAO/IATA	Refer to specific regulation	on.				
IMO/IMDG (maritime)	Refer to specific regulation	on.				
]	15. REGULATORY INFO	RMATION				
US Regulations:						
OSHA Status	Classified as hazardous	based on compone	nts.			
TSCA Status	All components of this TSCA Inventory.	product are listed of	on or exempt from the			
US. EPA CERCLA Hazardous Su	bstances (40 CFR 302)					
not applicable	not applicable					
California Proposition 5	Not applicable					
SARA Title III Section 302 Extrem	mely Hazardous Substance					
Unless specific chemicals are iden	•	s product is Not A	pplicable under this regulation			
SARA Title III Section 313 Toxic Unless specific chemicals are iden		s product is Not A	nnlicable under this regulation			
Chemical Name	under under uns section, un	CAS-No.	Weight percent			
CHROMIUM III COMPOUND COMPOUNDSANTIMONY COMPOUNDSCHROMIUM C		68186-90-3	1.00 - 5.00			
Canadian Regulations:						
National Pollutant Release	Inventory (NPRI)					

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Chemical Name			CAS-No.	Weight	NPRI ID#
				percent	
Rutile, antimony chromium b	uff		68186-90-3	1.00 - 5.00	
WHMIS Classification WHMIS Ingredient Disc					
CAS-No. 1333-86-4 68186-90-3 7631-86-9					
DSL	:		ts of this product a t (DSL) or are exe		n Domestic
ational Inventories:					
Australia AICS	:	Listed			
China IECS	:	Listed			
Europe EINECS	:	Listed			
Japan ENCS	:	Not determined	d		
Korea KECI	:	Not determined	d		
Philippines PICCS	:	Not determined	d		

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