MATERIAL SAFETY DATA SHEET UV Slate Grey V.4

Version Number 1.0 Revision Date 10/18/2007

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1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION 33587 Walker Road, Avon Lake, OH 44012

Telephone Emergency telephone	:	Product Stewardship (770) 271-5902 CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).
Product name	:	UV Slate Grey V.4
Product code	:	CC10105230
Chemical Name	:	Mixture
CAS-No.	:	Mixture
Product Use	:	Industrial Applications

2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

Components	CAS-No.	Weight %
1,6-Hexanediamine,	70624-18-9	1 - 5
N,N'-bis(2,2,6,6-tetramethyl-4-piperidinyl)-,		
polymer with 2,4,6-trichloro-1,3,5-triazine,		
reaction products		
Phenol,	25973-55-1	5 - 10
2-(2H-benzotriazol-2-yl)-4,6-bis(1,1-dimeth		
ylpropyl)-		
Manganese	7439-96-5	0.1 - 1
8-Oxa-3,5-dithia-4-stannatetradecanoic acid,	57583-35-4	1 - 5
10-ethyl-4,4-dimethyl-7-oxo-, 2-ethylhexyl		
ester		
Calcium stearate	1592-23-0	1 - 5
Chromium (III) oxide	1308-38-9	1 - 5
Rutile, antimony chromium buff	68186-90-3	1 - 5
Calcium carbonate	1317-65-3	5 - 10
Titanium dioxide	13463-67-7	10 - 30
Iron chromite brown spinel	12737-27-8	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

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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 processing, may be irritating to respiratory system.
Ingestion	: May be harmful if swallowed.
Eyes	: Particulates, like other inert materials can be mechanically irritating.
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 seel medical attention.
	5. FIRE-FIGHTING MEASURES
Flash point	: Not applicable
Flammable Limits	
Upper explosion limit	: Not applicable
Lower explosion limit	: Not applicable
Autoignition 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 contaminants.
Unusual Fire/Explosion Hazards	: 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.

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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 be allowed to enter drains, water courses or the soil.	not
Methods for cleaning up	: Clean up promptly by sweeping or vacuum. Package all material in plastic, cardboard or metal containers for disposal. Refer to Section of this MSDS for proper disposal methods.	
	7. HANDLING AND STORAGE	
Handling	: Take measures to prevent the build up of electrostatic charge. Heat only in areas with appropriate exhaust ventilation.	ıt
Storage	: Keep containers dry and tightly closed to avoid moisture absorptio and contamination. Keep in a dry, cool place.	n
8. EXP	OSURE 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 pract Wash hands before breaks and at the end of workday.	ice
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:
8-Oxa-3,5-dithia-4-sta nnatetradecanoic acid, 10-ethyl-4,4-dimethyl- 7-oxo-, 2-ethylhexyl ester	0.1 mg/m3	Time Weighted Average (TWA):	as Sn	ACGIH
	0.2 mg/m3	Short Term Exposure Limit (STEL):	as Sn	ACGIH
	0.1 mg/m3	PEL:	as Sn	OSHA Z1
	0.1 mg/m3	Time Weighted Average (TWA):	as Sn	MX OEL
	0.2 mg/m3	Short Term Exposure Limit (STEL):	as Sn	MX OEL
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
Calcium stearate	10 mg/m3	Time Weighted Average (TWA):		ACGIH
Chromium (III) oxide	0.5 mg/m3	Time Weighted Average (TWA):	as Cr	ACGIH
	0.5 mg/m3	PEL:	as Cr	OSHA Z1
Rutile, antimony chromium buff	0.5 mg/m3	Time Weighted Average (TWA):	as Cr	ACGIH
	0.5 mg/m3	PEL:	as Cr	OSHA Z1
	0.5 mg/m3	Time Weighted Average (TWA):		MX OEL
	0.5 mg/m3	Time Weighted Average (TWA):	as Sb	ACGIH
	0.5 mg/m3	PEL:	as Sb	OSHA Z1
	0.5 mg/m3	Time Weighted Average (TWA):	as Sb	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):	as Ti	MX OEL
	20 mg/m3	Short Term Exposure Limit (STEL):	as Ti	MX OEL
Manganese	0.2 mg/m3	Time Weighted Average (TWA):	as Mn	ACGIH
	5 mg/m3	Ceiling Limit Value:	Fume. as Mn	OSHA Z1
	1 mg/m3	Time Weighted Average (TWA):	Fume. as Mn	MX OEL
	0.2 mg/m3	Time Weighted Average (TWA):	as Mn	MX OEL

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	3 mg/m3	Short Term Exposure Limit (STEL):	Fume. as Mn	MX OEL
Iron chromite brown spinel	0.5 mg/m3	Time Weighted Average (TWA):	as Cr	ACGIH
	0.5 mg/m3	PEL:	as Cr	OSHA Z1
	9. PHYSIC	CAL AND CHEMICAL PRO	PERTIES	
Form	: Solic	i Evapor	ation rate : No	ot applicable
Appearance	: pelle			ot determined
Color	: GRE	1		ot established
	. –			
Odour	: Very			ot applicable
Melting point/range		-		ot applicable
Boiling Point:		applicable pH	: No	ot applicable
Water solubility	: Insol	luble		
	10. 8	STABILITY AND REACTIV	ITY	
Stability	: S	table.		
Hazardous Polymerization	n : V	Vill not occur.		
Conditions to avoid		Leep away from oxidizing agen ecomposition, do not overheat.		avoid thermal
Incompatible Materials	a p d n q	avoid contact with strong oxidiz cetal copolymers and with amin rocessing. At processing cond estructive and involve rapid de nechanically clean processing e uantities of these materials from revent cross contamination of the	ne containing materials itions, these materials a gradation. Thoroughly quipment to avoid eve n coming in contact wa	s during are mutually / purge and n trace
Hazardous decomposition products	(] 51 0 °(Carbon dioxide (CO2), carbon r NOx), hydrogen chloride (HCl) moke are all possible. Prolong r more) above 392 °F (200 °C) C) may result in product decon nonoxide and hydrogen chlorid), other hazardous mate ed heating (approxima or short term heating a position and evolutior	erials, and tely 30 minutes at 482 °F (250
	11. TO	XICOLOGICAL INFORMA	ATION	
		s a whole for health effects. Exerts which comprise the mixtur		re based on exis
Toxicity Overview				
	following co	omponents which in their pure f	form have the followin	g characteristic

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		[
70624-18-9	1,6-Hexanediamine,	Irritant	Eyes, Skin, Respiratory system.
	N,N'-bis(2,2,6,6-tetrameth		
	yl-4-piperidinyl)-,polymer		
	with		
	2,4,6-trichloro-1,3,5-triazi		
	ne, reaction products		
25973-55-1	Phenol,	Systemic effects	Kidney, Liver, reproductive
	2-(2H-benzotriazol-2-yl)-4		system.
	,6-bis(1,1-dimethylpropyl)		
	-		
57583-35-4	8-Oxa-3,5-dithia-4-stannat	Irritant	Eyes, Skin.
	etradecanoic acid,		
	10-ethyl-4,4-dimethyl-7-o		
	xo-, 2-ethylhexyl ester		
1308-38-9	Chromium (III) oxide	Irritant	Eyes, Skin.
		sensitizer	Skin.
68186-90-3	Rutile, antimony	Irritant	Eyes, Skin, Respiratory system.
	chromium buff		
1317-65-3	Calcium carbonate	Irritant	Eyes, Skin.
		Systemic effects	Eyes, Skin, Respiratory system.
13463-67-7	Titanium dioxide	Systemic effects	Respiratory system.
12737-27-8	Iron chromite brown spinel	Irritant	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'-bis(2,2,6,6-tetrameth yl-4-piperidinyl)-,polymer with 2,4,6-trichloro-1,3,5-triazi	Oral LD50 Dermal LD50	> 2,000 mg/kg > 3,000 mg/kg	rat rat
	ne, reaction products			
1592-23-0	Calcium stearate	Oral LD50	> 10 gm/kg	rat

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.

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Additional Health Hazard Information:

Chromium (III) oxide 1308-38-9 The bi- and trivalent forms of chrome have a low order of acute toxicity, but may cause skin sensitization and irritation to the eyes. No effects have been reported for chromium (III) oxide. Chromium (III) compounds are not considered carcinogenic in animals or humans.

Additional Health Hazard Information:

Rutile, antimony chromium buff 68186-90-3 Can cause eye irritation. Can cause skin irritation. Symptoms may include redness and burning of skin, and other skin damage. Additional symptoms of skin contact may include: antimony measles (a red, pimply rash).

Additional Health Hazard Information:

Iron chromite brown spinel 12737-27-8 The bi- and trivalent forms of chrome have a low order of acute toxicity, but may cause skin sensitization and irritation to the eyes. No effects have been reported for chromium (III) oxide. Chromium (III) compounds are not considered carcinogenic in animals or humans.

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. Recycling is preferred when possible. The generator of waste material Contaminated packaging : 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 (air) Refer to specific regulation. : IMO / IMDG (maritime) : Refer to specific regulation.

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	15. REGULA	ATORY INFO	RMATIO	N	
US Regulations:					
OSHA Status	: Classified	l as hazardous b	based on co	omponents.	
TSCA Status	: All comp Inventory	-	roduct are	listed on or exem	pt from the TSCA
US. EPA CERCLA Hazardo	ous Substances (40	CFR 302)			
Not applicable					
California Propositio 65	on : Not applie	cable			
SARA Title III Section 302	Extremely Hazardo	ous Substance			
Unless specific chemicals ar	e identified under	this section, this	s product is	s Not Applicable	under this regulation
SARA Title III Section 313	Toxic Chemicals:				
Unless specific chemicals ar	e identified under	this section, this	s product is	s Not Applicable	under this regulation
Chemical Name			CAS-No	. Weigh	t %
CHROMIUM III COMPO			1308-38-		
CHROMIUM III COMPO COMPOUNDS	DUNDSANTIMON	NΥ	68186-90	-3 1.00 -	5.00
	CHROMIUM III COMPOUNDS			-8 10.00	- 30.00
Canadian Regulations:					
National Pollutant Re	elease Inventory (N	IPRI)			
Chemical Name	· · · · · ·	CAS-N	lo.	Weight %	NPRI ID#
Chromium (III) oxide		1308-3	8-9	1.00 - 5.00	69
Rutile, antimony chromiu	m buff	68186-	90-3	1.00 - 5.00	69
				1.00 - 5.00	17
Manganese		7439-9		0.10 - 1.00	147
Iron chromite brown spine	el	12737-	27-8	10.00 - 30.00	69

WHMIS Classification : D2A

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WHMIS Ingredient Discl	losu	ire List	
CAS-No. 57583-35-4 1308-38-9 68186-90-3 12737-27-8 DSL		All components of this product are on the Canadian Domestic	
		Substances List (DSL) or are exempt.	
National Inventories:			
Australia AICS	:	Not determined	
China IECS	:	Not determined	
Europe EINECS	:	Not determined	
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.