MATERIAL SAFETY DATA SHEET GREEN W/UV

Version Number 1.1 Revision Date 03/13/2014 Page 1 of 8 Print Date 3/20/2014

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	:	GREEN W/UV
Product code	:	CC10129950
Chemical Name	:	Mixture
CAS-No.	:	Mixture
Product Use	:	Industrial Applications

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight percent
Decanedioic acid, bis(2,2,6,6-tetramethyl-4-	52829-07-9	1 - 5
piperidinyl) ester		
Boric acid (H3BO3)	10043-35-3	1 - 5
Carbon black	1333-86-4	1 - 5
Iron oxide	1309-37-1	5 - 10
Titanium dioxide	13463-67-7	5 - 10

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.
Ingestion Eyes	May be harmful if swallowed.Resin particles, like other inert materials, are mechanically irritating to



MATERIAL SAFETY DATA SHEET **GREEN W/UV**

ion Number 1.1 sion Date 03/13/2014	Page 2 Print Date 3/20/2
Skin	eyes. : 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 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	 not applicable not applicable not applicable 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.
	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 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.

PolyOne.

MATERIAL SAFETY DATA SHEET **GREEN W/UV**

Version Number 1.1 Revision Date 03/13/2014

Page 3 of 8 Print Date 3/20/2014

		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)		

<u>PolyOne</u>

MATERIAL SAFETY DATA SHEET GREEN W/UV

Version Number 1.1 Revision Date 03/13/2014 Page 4 of 8 Print Date 3/20/2014

Components	Value	Exposure time	Exposure type	List:
Boric acid (H3BO3)	2 mg/m3	Time Weighted Average (TWA):	Inhalable fraction.	ACGIH
	6 mg/m3	Short Term Exposure Limit (STEL):	Inhalable fraction.	ACGIH
	2 mg/m3	Time Weighted Average (TWA):	Inhalable fraction.	ACGIH
	6 mg/m3	Short Term Exposure Limit (STEL):	Inhalable fraction.	ACGIH
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
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
: GREEN
: very faint
: Not determined
: not applicable
: insoluble

Evapouration rate Specific Gravity Bulk density Vapour pressure Vapour density pH Not applicable
Not determined
Not established
not applicable
not applicable
not applicable

PolvOne

MATERIAL SAFETY DATA SHEET GREEN W/UV

Version Number 1.1 Revision Date 03/13/2014

Page 5 of 8 Print Date 3/20/2014

	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

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.

<u>Toxicity Overview</u> This product contains the following components which in their pure form have the following characteristics:

CAS-No.	Chemical Name	Effect	Target Organ
52829-07-9	Decanedioic acid,	Irritant	Eyes.
	bis(2,2,6,6-tetramethyl-4-		
	piperidinyl) ester		
1333-86-4	Carbon black	Systemic effects	Eyes, Respiratory system.
1309-37-1	Iron oxide	Systemic effects	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
52829-07-9	Decanedioic acid,	Oral LD50	3,700 mg/kg	rat
	bis(2,2,6,6-tetramethyl-4-	Dermal LD50	> 3,100 mg/kg	rabbit
	piperidinyl) ester			
10043-35-3	Boric acid (H3BO3)	Oral	2,660	ratratmouseChic
		LD50Oral	mg/kg2,660	ken
		LD50Oral	mg/kg3,450	rabbit
		LD50Oral	mg/kg2.95 g/kg	
		LD50	2,000 mg/kg	
		Dermal LD50		
1333-86-4	Carbon black	Oral LD50	>15,400 mg/kg	rat
		Dermal LD50	> 3 gm/kg	rabbit

Carcinogenicity

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

PolvOne

MATERIAL SAFETY DATA SHEET GREEN W/UV

Version Number 1.1 Revision Date 03/13/2014 Page 6 of 8 Print Date 3/20/2014

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 available
	13. DISPOSAL CONSIDERATIONS
Product	: Like most thermoplastic plastics the product can be recycled. Wher 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.

PolyOne.

MATERIAL SAFETY DATA SHEET **GREEN W/UV**

Version Number 1.1 Revision Date 03/13/2014 Page 7 of 8 Print Date 3/20/2014

	1	4. TRANSPORT INFO	RMATIO	N		
U.S. DOT Classification	:	Not regulated for transp	ortation.			
ICAO/IATA	:	Refer to specific regulat	ion.			
IMO/IMDG (maritime)	:	Refer to specific regulat	ion.			
	15	REGULATORY INFO	ORMATI	ON		
US Regulations:						
-						
OSHA Status	:	Classified as hazardous	based on o	componen	ts.	
TSCA Status	:	All components of this TSCA Inventory.	product ar	re listed or	1 or exen	npt from the
US. EPA CERCLA Hazardo	ıs Subs	tances (40 CFR 302)				
not applicable						
**						
65 SARA Title III Section 302 H						
Unless specific chemicals are	identif	fied under this section, th	is product	t is Not Ap	plicable	under this regula
	Foxic C	hemicals:				
SARA Title III Section 313						
Unless specific chemicals are		fied under this section, th			<u>^</u>	
Unless specific chemicals are Chemical Name VANADIUM COMPOUN	identif		is product CAS-N 14059-3	No.	<u>^</u>	percent
Unless specific chemicals are Chemical Name	identif		CAS-N	No.	Weight	percent
Unless specific chemicals are Chemical Name VANADIUM COMPOUN	identif		CAS-N	No.	Weight	percent
Unless specific chemicals are Chemical Name VANADIUM COMPOUN COMPOUNDS Canadian Regulations: National Pollutant Ref	b identif	NADIUM ventory (NPRI)	CAS-N 14059-3	No. 33-7	Weight	percent · 30.00
Unless specific chemicals are Chemical Name VANADIUM COMPOUN COMPOUNDS Canadian Regulations:	b identif	NADIUM	CAS-N 14059-3	No. 33-7 Weigh	Weight 10.00 -	percent
Unless specific chemicals are Chemical Name VANADIUM COMPOUN COMPOUNDS Canadian Regulations: National Pollutant Ref	b identif	NADIUM ventory (NPRI) CAS-	CAS-N 14059-3 No.	No. 33-7 Weigh percen	Weight 10.00 -	percent · 30.00

PolyOne

MATERIAL SAFETY DATA SHEET GREEN W/UV

Version Number 1.1 Revision Date 03/13/2014

Page 8 of 8 Print Date 3/20/2014

Phthalocyanine blue			147-14-8	0.10 - 1.00	
Phthalocyanine green			1328-53-6	5.00 - 10.00	
Zinc oxide			1314-13-2	0.10 - 1.00	
Phosphoric acid, zinc salt (2:3	3)		7779-90-0	0.10 - 1.00	
WHMIS Classification WHMIS Ingredient Disc: CAS-No. 10043-35-3 1333-86-4 1309-37-1 1328-53-6 DSL	losure	All of the comp nventories or ar roduct is on the	e exempt. Howe Canadian Non-	oduct are listed on th ver, at least one com Domestic Substances ted by regulations.	ponent of this
National Inventories:					
Australia AICS	: I	isted			
China IECS	: I	isted			
Europe EINECS	: I	isted			
Japan ENCS	: 1	Not determined			
Korea KECI	: I	isted			

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.