### MATERIAL SAFETY DATA SHEET LASER GREEN 360U

Version Number 1.2 Revision Date 03/23/2014

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	:	LASER GREEN 360U
Product code	:	CC10139508
Chemical Name	:	Mixture
CAS-No.	:	Mixture

: Industrial Applications

#### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight percent
Tin antimony gray cassiterite	68187-54-2	1 - 5
Chromium (III) oxide	1308-38-9	1 - 5
Mica	12001-26-2	1 - 5
Silica, amorphous	7631-86-9	1 - 5
Titanium dioxide	13463-67-7	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		
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.	

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Skin : Experience shows no unusual dermatitis hazard from routine handl				
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 or 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.			
kin : 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>			
Upper explosion limit Lower explosion limit Auto-ignition temperature	<ul> <li>not applicable</li> <li>not applicable</li> <li>Carbon dioxide blanket, Water spray, Dry powder, Foam.</li> <li>Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne</li> </ul>			
Upper explosion limit Lower explosion limit Auto-ignition temperature Suitable extinguishing media Special Fire Fighting Procedures Unusual Fire/Explosion	<ul> <li>not applicable</li> <li>not applicable</li> <li>Carbon dioxide blanket, Water spray, Dry powder, Foam.</li> <li>Fullface self-contained breathing apparatus (SCBA) used in positive</li> </ul>			
Upper explosion limit Lower explosion limit Auto-ignition temperature Suitable extinguishing media Special Fire Fighting Procedures Unusual Fire/Explosion Hazards	<ul> <li>not applicable</li> <li>not applicable</li> <li>Carbon dioxide blanket, Water spray, Dry powder, Foam.</li> <li>Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants.</li> <li>Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen</li> </ul>			
Upper explosion limit Lower explosion limit Auto-ignition temperature Suitable extinguishing media Special Fire Fighting Procedures Unusual Fire/Explosion Hazards	<ul> <li>not applicable</li> <li>not applicable</li> <li>Carbon dioxide blanket, Water spray, Dry powder, Foam.</li> <li>Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants.</li> <li>Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible.</li> </ul>			
Upper explosion limit Lower explosion limit Auto-ignition temperature Suitable extinguishing media Special Fire Fighting Procedures Unusual Fire/Explosion Hazards	<ul> <li>not applicable</li> <li>not applicable</li> <li>Carbon dioxide blanket, Water spray, Dry powder, Foam.</li> <li>Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants.</li> <li>Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible.</li> <li>6. ACCIDENTAL RELEASE MEASURES</li> <li>Wear appropriate personal protection during cleanup, such as</li> </ul>			

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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.	

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Components	Value	Exposure time	Exposure type	List:
Tin antimony gray cassiterite	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
Chromium (III) oxide	0.5 mg/m3	Recommended exposure limit (REL):	as Cr	NIOSH
	0.5 mg/m3	PEL:	as Cr	OSHA Z1
Mica	3 mg/m3	Time Weighted Average (TWA):	Respirable fraction.	ACGIH
	3 mg/m3	Recommended exposure limit (REL):	Respirable.	NIOSH
	3 mg/m3	Time Weighted Average (TWA):	Respirable dust.	OSHA Z1A
	3 mg/m3	Time Weighted Average (TWA):		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 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

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

Stability

: The product is stable if stored and handled as prescribed.

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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.

#### **Toxicity Overview**

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

CAS-No.	Chemical Name	Effect	Target Organ
68187-54-2	Tin antimony gray	Irritant	Eyes, Skin.
	cassiterite		
1308-38-9	Chromium (III) oxide	Irritant	Eyes, Skin.
		sensitizer	Skin.
12001-26-2	Mica	Systemic effects	Respiratory system.
7631-86-9	Silica, amorphous	Irritant	Eyes, Respiratory system.
13463-67-7	Titanium dioxide	Systemic effects	Respiratory system.

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:

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.

#### **12. ECOLOGICAL INFORMATION**

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Persistence and degradabilit	y : 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 TSCA Inventory.			
US. EPA CERCLA Hazardo	ous Substances (40 CFR 302)			
Chemical Name	CAS-No. RQ for component RQ for Mixture/Product			
	WIXture/Product			

Chemical Name	CAS-No.	RQ for component	RQ for
			Mixture/Product
Chromium (III) oxide	1308-38-9	010 lbs	668 LB
OXIUC			

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California Proposition : Not applicable 65

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

Chemical Name	CAS-No.	Weight percent
ANTIMONY COMPOUNDS	68187-54-2	1.00 - 5.00
CHROMIUM III COMPOUNDSCHROMIUM COMPOUNDS	1308-38-9	1.00 - 5.00

Canadian Regulations:

National Pollutant Release In	ventory (NPRI)
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Chemical Name	CAS-No.	Weight	NPRI ID#
		percent	
Tin antimony gray cassiterite	68187-54-2	1.00 - 5.00	
Chromium (III) oxide	1308-38-9	1.00 - 5.00	
Phthalocyanine green	1328-53-6	1.00 - 5.00	

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

CAS-No.
68187-54-2
1308-38-9
12001-26-2
1328-53-6
7631-86-9

DSL

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

National Inventories:

Australia AICS	:	Not determined

:

: Not determined

China IECS

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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.