PolvOne.

MATERIAL SAFETY DATA SHEET FOREST GREEN

Version Number 1.0 Revision Date 11/07/2006

Page 1 of 7 Print Date 11/25/2011

1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION 33587 Walker Road, Avon Lake, OH 44012

Telephone Emergency telephone number	:	Product Stewardship (770) 271-5902 CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).
Product name	:	FOREST GREEN
Product code	:	CC10093649
Chemical Name	:	Mixture
CAS-No.	:	Mixture

CAS-No.:MixtureProduct Use:Industrial Applications

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Titanium dioxide	13463-67-7	0.1 - 1
Cobalt chromite green spinel (C.I. Pigment Green 26)	68187-49-5	5 - 10
Cobalt titanate green spinel (C.I. Pigment Green 50)	68186-85-6	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 Ingestion Eyes	 Resin particles, like other inert materials, can be mechanically irritating. May be harmful if swallowed. Resin particles, like other inert materials, are mechanically irritating to eyes.
Skin	: Experience shows no unusual dermatitis hazard from routine handling.

PolyOne.

MATERIAL SAFETY DATA SHEET **FOREST GREEN**

Version Number 1.0 Revision Date 11/07/2006 Page 2 of 7 Print Date 11/25/2011

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 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 Lower explosion limit Autoignition temperature Suitable extinguishing media	 Not applicable Not applicable Not applicable Carbon dioxide blanket, water spray, dry powder, foamnone. 			
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. Refer to Section 13 of this MSDS for proper disposal methods.			
	7. HANDLING AND STORAGE			



MATERIAL SAFETY DATA SHEET FOREST GREEN

Version Number 1.0 Revision Date 11/07/2006		Page 3 of 7 Print Date 11/25/2011
Handling Storage	:	Take measures to prevent the build up of electrostatic charge. Heat only in areas with appropriate exhaust ventilation. Keep containers dry and tightly closed to avoid moisture absorption and contamination. Keep in a dry, cool place.
8. EXPO	SUI	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)

Components	Value	Exposure time	Exposure type	List:
Cobalt chromite green	0.02	Time Weighted Average	as Co	ACGIH
spinel (C.I. Pigment	mg/m3	(TWA):		
Green 26)				
	0.5 mg/m3	Time Weighted Average		MX OEL
		(TWA):		
Cobalt titanate green	0.02	Time Weighted Average	as Co	ACGIH
spinel (C.I. Pigment	mg/m3	(TWA):		
Green 50)				
Titanium dioxide	10 mg/m3	Time Weighted Average		ACGIH
		(TWA):		
	15 mg/m3	PEL:	Total dust.	OSHA Z1
	20 mg/m3	Short Term Exposure Limit	as Ti	MX OEL
	_	(STEL):		

9. PHYSICAL AND CHEMICAL PROPERTIES

- Form Appearance Color Odor Melting point/range
- : Solid: Pellets: GREEN: Very faint: Not determined
- Evaporation rate Specific Gravity: Bulk density Vapor pressure Vapour density
- Not applicableNot determinedNot establishedNot applicableNot applicable



MATERIAL SAFETY DATA SHEET FOREST GREEN

Version Number 1.0 Revision Date 11/07/2006 Page 4 of 7 Print Date 11/25/2011

Boiling Point: Water solubility		ot applicable soluble	рН	:	Not applicable
	1). STABILITY A	ND REACTIVITY		
Stability	:	Stable.			
Hazardous Polymerization	:	Will not occur.			
Conditions to avoid	:	Keep away from decomposition, o	n oxidizing agents and do not overheat.	l open flame.	To avoid thermal
Incompatible Materials	:	Incompatible wi	th strong acids and ox	xidizing agent	s.
Hazardous decomposition products	:		(CO2), carbon monox zardous materials, and	. , .	U

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
13463-67-7	Titanium dioxide	Systemic effects	Respiratory system.
68186-85-6	Cobalt titanate green spinel (C.I. Pigment Green 50)	Irritant	Eyes, Skin.

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
68187-49-5	Cobalt chromite green spinel (C.I. Pigment Green 26)	no	2B	no
68186-85-6	Cobalt titanate green spinel (C.I. Pigment Green 50)	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.

PolyOne.

MATERIAL SAFETY DATA SHEET **FOREST GREEN**

Version Number 1.0 Revision Date 11/07/2006 Page 5 of 7 Print Date 11/25/2011

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 materia 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.
	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 Hazardous	Substances (40 CFR 302)
Not applicable	

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MATERIAL SAFETY DATA SHEET FOREST GREEN

Version Number 1.0 Revision Date 11/07/2006 Page 6 of 7 Print Date 11/25/2011

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 %
COBALT COMPOUNDS	68187-49-5	5.00 - 10.00
COBALT COMPOUNDS	68186-85-6	10.00 - 30.00

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

Chemical Name	CAS-No.	Weight %	NPRI ID#
Cobalt chromite green spinel (C.I. Pigment Green	68187-49-5	5.00 - 10.00	70
26)			
Cobalt titanate green spinel (C.I. Pigment Green	68186-85-6	10.00 - 30.00	70
50)			
2-Propenoic acid, 2-methyl-, methyl ester	80-62-6	0.10 - 1.00	161

WHMIS Classification : D2A

DSL

: DSL status has not been determined. Quantity use in Canada may be restricted by regulations.

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

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MATERIAL SAFETY DATA SHEET FOREST GREEN

Version Number 1.0 Revision Date 11/07/2006 Page 7 of 7 Print Date *11/25/2011*

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.