### MATERIAL SAFETY DATA SHEET PALE GREEN PP

Version Number 1.0 Revision Date 01/28/2008

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### 1. PRODUCT AND COMPANY IDENTIFICATION

#### POLYONE CORPORATION 33587 Walker Road, Avon Lake, OH 44012

Telephone <b>Emergency telephone</b>	:	Product Stewardship (770) 271-5902 CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).
Product name	:	PALE GREEN PP
Product code	:	CC10108051
Chemical Name	:	Mixture
CAS-No.	:	Mixture
Product Use	:	Industrial Applications

### 2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

Components	CAS-No.	Weight %
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

<b>Routes of Exposure:</b>	: 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.			
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.			

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		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 seek medical attention.
		5. FIRE-FIGHTING MEASURES
Flash point	:	Not applicable
<b>F</b> 1		
Flammable Limits Upper explosion limit		Not applicable
	•	Not applicable Not applicable
Lower explosion limit	·	
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.
	6. A	CCIDENTAL 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
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

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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       :       Safety shoes         Measures       :       Safety shoes         General Hygiene       :       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)       :       Xotal Maximum diversion at machinery.         Exposure limit(s)       :       Titanium dioxide       10 mg/m3         10 mg/m3       Time Weighted Average       as Ti       MX OEL         (TWA):       :       Total dust.       OSHAZI         20 mg/m3       Short Term Exposure Limit       as Ti       MX OEL         Stabil (Gor       :       :       Not applicable         Appearance       :       :       Solid       Evaporation rate       :       Not applicable         Aprearance       :       :<	8. ]	EXPOSURE	CONTROLS/PERSON	AL PROTECTION	
Hand protection       :       Protective gloves         Skin and body protection       :       Long sleeved clothing         Additional Protective       :       Safety shoes         Measures       :       Safety shoes         General Hygiene       :       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)       :       teat only in areas with appropriate exhaust ventilation. Provide appropriate exhaust ventilation at machinery.         Exposure limit(s)       :       :       ACGIH (TWA);         Components       Value       Exposure time       Exposure type       List:         Titanium dioxide       10 mg/m3       Time Weighted Average       as Ti       MX OEL (TWA);         10 mg/m3       Time Weighted Average       as Ti       MX OEL (STEL);         PHYSICAL AND CHEMICAL PROPERTIES       :       Not applicable         Stort Term Exposure Limit       as Ti       MX OEL (STEL);       Not determined         Quorar       :       Solid       Evaporation rate       :       Not determined         Quorar       :       Solid	Respiratory protection	: N	lo personal respiratory pro	tective equipment nor	rmally required.
Skin and body protection       : Long sleeved clothing         Additional Protective       : Safety shoes         Measures       :         General Hygiene       : 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:         Titanium dioxide       10 mg/m3       Time Weighted Average       ACGIH         (TWA):       :       OstHA ZI         10 mg/m3       Short Term Exposure Limit       as Ti       MX OEL         20 mg/m3       Short Term Exposure Limit       as Ti       Not applicable         Appearance       : pellets       Specific Gravity       : Not applicable         Appearance       : pellets       Specific Gravity       : Not applicable         Metting point/range       : Not determined       Vapour density       : Not applicable         Boiling Point:       : Not applicable       pH       : Not applicable         Mater solubility       : Insoluble       : Insoluble       : Not applicable         Distribution	Eye/Face Protection	: S	afety glasses with side-shi	elds	
Additional Protective       ::       Safety shoes         Measures       General Hygiene       ::       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)       :       .       Karting appropriate exhaust ventilation. Provide appropriate exhaust ventilation at machinery.         Exposure limit(s)       :       .       .         Components       Value       Exposure time       Exposure type       List:         Titanium dioxide       10 mg/m3       Time Weighted Average as Ti       MX OEL (TWA):       .         10 mg/m3       Time Weighted Average as Ti       MX OEL (TWA):       .       .         20 mg/m3       Short Term Exposure Limit as Ti       MX OEL (STEL):       .         PHYSICAL AND CHEMICAL PROPERTIES         Form       :       Solid       Evaporation rate       :       Not applicable Appearance         Color       :       GREEN       Bulk density       :       Not established Odour         Odour       :       Very faint       Vapour pressure       Not applicable Boiling Point:       :       Not applicable PH	Hand protection	: P	rotective gloves		
Measures         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)       : Heat only in areas with appropriate exhaust ventilation. Provide appropriate exhaust ventilation at machinery.         Exposure limit(s)       : Heat only in areas with appropriate exhaust ventilation. Provide appropriate exhaust ventilation at machinery.         Exposure limit(s)       : Heat only in areas with appropriate exhaust ventilation at machinery.         Exposure limit(s)       : Heat only in areas with appropriate exhaust ventilation at machinery.         Exposure limit(s)       : Total dust.       OSHA ZI         I 10 mg/m3       Time Weighted Average (TWA):       : ACGIH (TWA):         20 mg/m3       Short Term Exposure Limit (STEL):       as Ti       MX OEL         Solid       Evaporation rate       : Not applicable Appearance       : Not applicable         Godour       : GREEN       Bulk density       : Not established         Odour       : Very faint       Vapour pressure       : Not applicable         Meting point/range       : Not determined       Vapour density       : Not applicable         Boiling Point:       : Not ap	Skin and body protection	: L	ong sleeved clothing		
Considerations       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)       : Heat only in areas with appropriate exhaust ventilation. Provide appropriate exhaust ventilation at machinery.         Exposure limit(s)       : Heat only in areas with appropriate exhaust ventilation. Provide appropriate exhaust ventilation at machinery.         Exposure limit(s)       : Heat only in areas with appropriate exhaust ventilation. Provide appropriate exhaust ventilation at machinery.         Exposure limit(s)       : Heat only in areas with appropriate exhaust ventilation. Provide appropriate exhaust ventilation at machinery.         Exposure limit(s)       : Ist         ************************************		: S	afety shoes		
appropriate exhaust ventilation at machinery.         Exposure limit(s)         Components       Value       Exposure time       Exposure type       List:         Titanium dioxide       10 mg/m3       Time Weighted Average       ACGIH         (TWA):       15 mg/m3       PEL:       Total dust.       OSHA ZI         10 mg/m3       Time Weighted Average       as Ti       MX OEL         (TWA):       0       0       OSHA ZI         20 mg/m3       Short Term Exposure Limit       as Ti       MX OEL         (STEL):       0       MX OEL       (STEL):       Not applicable         Appearance       :       pellets       Specific Gravity       Not applicable         Odour       :       Very faint       Vapour pressure       Not applicable         Melting point/range       :       Not applicable       pH       :       Not applicable         Boiling Point:       :       Not applicable       pH       :       Not applicable         Boiling Point:       :       Not applicable       pH       :       Not applicable         Boiling Point:       :       Not applicable       pH       :       Not applicable         Water solubility       : <td></td> <td></td> <td></td> <td></td> <td></td>					
Components         Value         Exposure time         Exposure type         List:           Titanium dioxide         10 mg/m3         Time Weighted Average (TWA):         ACGIH           15 mg/m3         PEL:         Total dust.         OSHA ZI           10 mg/m3         Time Weighted Average (TWA):         as Ti         MX OEL           20 mg/m3         Short Term Exposure Limit (STEL):         as Ti         MX OEL           PHYSICAL AND CHEMICAL PROPERTIES         Vot applicable         Not applicable           Appearance         : pellets         Specific Gravity         Not determined           Color         : GREEN         Bulk density         : Not applicable           Melting point/range         : Not determined         Vapour density         : Not applicable           Boiling Point:         : Not applicable         pH         : Not applicable           Water solubility         : Insoluble         Insoluble         : Not applicable	Engineering measures				lation. Provide
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         9. PHYSICAL AND CHEMICAL PROPERTIES         Form       : Solid       Evaporation rate       : Not applicable         Appearance       : pellets       Specific Gravity       : Not determined         Color       : GREEN       Bulk density       : Not established         Odour       : Very faint       Vapour pressure       : Not applicable         Belling point/range       : Not determined       Vapour density       : Not applicable         Boiling Point:       : Not applicable       pH       : Not applicable         Hot STABILITY AND REACTIVITY         Stability       : Stable.       Hazardous Polymerization       : Will not occur.	Exposure limit(s)				
Image: Constraint of the stability of the s		Value	Exposure time	Exposure ty	rpe List:
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 : Solid Evaporation rate : Not applicable Appearance : pellets Specific Gravity : Not determined Color : GREEN Bulk density : Not established Odour : Very faint Vapour pressure : Not applicable Melting point/range : Not determined Vapour density : Not applicable Boiling Point: : Not applicable pH : Not applicable         Boiling Point: : Insoluble       Insoluble         IO. STABILITY AND REACTIVITY         Stability : Stable.         Hazardous Polymerization : Will not occur.	Titanium dioxide	10 mg/m3		ge	ACGIH
Image: constraint of the constraint		15 mg/m3	PEL:	Total dust	. OSHA Z1
(STEL):         9. PHYSICAL AND CHEMICAL PROPERTIES         Form       :       Solid       Evaporation rate       :       Not applicable         Appearance       :       pellets       Specific Gravity       :       Not determined         Color       :       GREEN       Bulk density       :       Not established         Odour       :       Very faint       Vapour pressure       :       Not applicable         Melting point/range       :       Not determined       Vapour density       :       Not applicable         Boiling Point:       :       Not applicable       pH       :       Not applicable         Water solubility       :       Insoluble       :       Not applicable         Hazardous Polymerization       :       Will not occur.       :       :		10 mg/m3		ge as Ti	MX OEL
Form       : Solid       Evaporation rate       : Not applicable         Appearance       : pellets       Specific Gravity       : Not determined         Color       : GREEN       Bulk density       : Not established         Odour       : Very faint       Vapour pressure       : Not applicable         Melting point/range       : Not determined       Vapour density       : Not applicable         Boiling Point:       : Not applicable       pH       : Not applicable         Water solubility       : Insoluble       Insoluble       Insoluble         Stability       : Stable.       :       Hazardous Polymerization       : Will not occur.		20 mg/m3	-	mit as Ti	MX OEL
Form       : Solid       Evaporation rate       : Not applicable         Appearance       : pellets       Specific Gravity       : Not determined         Color       : GREEN       Bulk density       : Not established         Odour       : Very faint       Vapour pressure       : Not applicable         Melting point/range       : Not determined       Vapour density       : Not applicable         Boiling Point:       : Not applicable       pH       : Not applicable         Water solubility       : Insoluble       Insoluble       Insoluble         Stability       : Stable.       :       Hazardous Polymerization       : Will not occur.		9 PHVSI	CAL AND CHEMICAL	PROPERTIES	
Appearance       : pellets       Specific Gravity       : Not determined         Color       : GREEN       Bulk density       : Not established         Odour       : Very faint       Vapour pressure       : Not applicable         Melting point/range       : Not determined       Vapour density       : Not applicable         Boiling Point:       : Not applicable       pH       : Not applicable         Water solubility       : Insoluble       Insoluble       Insoluble         Stability       : Stable.       : Stable.         Hazardous Polymerization       : Will not occur.       : Will not occur.		<i>7</i> .11151			
Color       : GREEN       Bulk density       : Not established         Odour       : Very faint       Vapour pressure       : Not applicable         Melting point/range       : Not determined       Vapour density       : Not applicable         Boiling Point:       : Not applicable       pH       : Not applicable         Water solubility       : Insoluble       Insoluble       : Not applicable         Stability         :       Stable.         Hazardous Polymerization       : Will not occur.	Form	: Solic	l Ev	vaporation rate	: Not applicable
Odour       : Very faint       Vapour pressure       : Not applicable         Melting point/range       : Not determined       Vapour density       : Not applicable         Boiling Point:       : Not applicable       pH       : Not applicable         Water solubility       : Insoluble       Insoluble       : Not applicable         Image: Mater solubility       : Insoluble       : Not applicable       : Not applicable         Stability       : Stable.       : Stable.       : Will not occur.					
Melting point/range       : Not determined       Vapour density       : Not applicable         Boiling Point:       : Not applicable       pH       : Not applicable         Water solubility       : Insoluble       Insoluble       Insoluble         IO. STABILITY AND REACTIVITY         Stability         :       Stable.         Hazardous Polymerization       : Will not occur.					
Boiling Point:       : Not applicable       pH       : Not applicable         Water solubility       : Insoluble       10. STABILITY AND REACTIVITY         Stability       : Stable.         Hazardous Polymerization       : Will not occur.				1 1	
Water solubility       : Insoluble         10. STABILITY AND REACTIVITY         Stability       : Stable.         Hazardous Polymerization       : Will not occur.					
Stability: Stable.Hazardous Polymerization: Will not occur.				1	
Hazardous Polymerization : Will not occur.		10. 5	STABILITY AND REAC	CTIVITY	
	Stability	: S	table.		
Conditions to avoid : Keep away from oxidizing agents and open flame. To avoid thermal	Hazardous Polymerization	1 : V	Vill not occur.		
	Conditions to avoid	: K	Leep away from oxidizing	agents and open flame	e. To avoid thermal

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	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
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:

Γ	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.

#### **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			
	3. DISPOSAL CONSIDERATIONS			
Product	Like most thermoplastic plastics the product can be recycled. Where possible recycling is preferred to disposal or incineration. The			

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	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 (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 Hazardo	us Substances (40 CFR 302)
Not applicable	
California Propositio 65	n : Not applicable
SARA Title III Section 302 I	Extremely Hazardous Substance
Unless specific chemicals are	e identified under this section, this product is Not Applicable under this regulation
SARA Title III Section 313	Foxic Chemicals:
Unless specific chemicals are	e identified under this section, this product is Not Applicable under this regulation
Canadian Regulations:	

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National Pollutant Releas	e Iı	wentory (NPRI)				
Chemical Name		iventory (IVI KI)	CAS-No.	Weight %	NPRI ID#	1
Phthalocyanine green			1328-53-6	0.10 - 1.00	71	]
WHMIS Classification	:	D2A				
DSL	:		of this product a (DSL) or are exe	are on the Canadia empt.	an Domestic	
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 IN	FORMATION	-		

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.