MATERIAL SAFETY DATA SHEET Geon™ DX2055OPG OPAQUE GREEN 368C

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1. PRODUCT AND COMPANY IDENTIFICATION POLYONE CORPORATION 8155 Cobb Center Drive, Kennesaw, GA 30152 1 (440) 930-1000 or 1 (866) POLYONE Telephone : **Emergency telephone** : CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure number or accident). Product name Geon[™] DX20550PG OPAQUE GREEN 368C : FO20029083 Product code : Chemical Name Mixture : CAS-No. Mixture : Product Use : Industrial Applications

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight percent
Titanium dioxide	13463-67-7	0.1 - 1

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

This mixture has not been evaluated as a whole for health effects. Information provided on health effects of this product is based on the individual components. However, some vapors or contaminants 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. See sections 8 and 11 for special precautions.

POTENTIAL HEALTH EFFECTS

Routes of Exposure:	: Inhalation, Skin contact, Ingestion	
Acute exposure		
Inhalation	: Inhalation of airborne droplets may cause irritation of the respiratory tract.	
Ingestion	: May be harmful if swallowed.	
Eyes	: May cause eye and skin irritation.	
Skin	: Experience shows no unusual dermatitis hazard from routine handling.	
Chronic exposure	: Refer to Section 11 for Toxicological Information.	



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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 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	: no data available
Flammable Limits Upper explosion limit Lower explosion limit Auto-ignition temperature Suitable extinguishing media Special Fire Fighting Procedures Unusual Fire/Explosion Hazards	 no data available no data available Not applicable Carbon dioxide blanket, Water spray, Dry powder, Foam. Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants. May emit Hydrogen Chloride (HCl) or Carbon Monoxide (CO) under fire conditions. 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	: The product should not be allowed to enter drains, water courses or the soil. Should not be released into the environment.
Methods for cleaning up	: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Package all material in appropriate container for disposal.
	7. HANDLING AND STORAGE



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Handling	:	Heat only in areas with appropriate exhaust ventilation. Processing fume condensates may contain combustible or toxic residue. Periodically clean hoods, ducts, and other surfaces to minimize accumulation of these materials.
Storage	:	Keep containers dry and tightly closed to avoid moisture absorption and contamination. Store in a cool dry place.
8. EX	POSUI	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: Titanium dioxide 10 mg/m3 Time Weighted Average ACGIH (TWA): 15 mg/m3 PEL: Total dust. OSHA Z1 10 mg/m3 Time Weighted Average Total dust. OSHA Z1A (TWA): 10 mg/m3 Time Weighted Average as Ti MX OEL (TWA): 20 mg/m3 Short Term Exposure Limit as Ti MX OEL (STEL):

9. PHYSICAL AND CHEMICAL PROPERTIES

- Form Appearance Colour Odour Melting point/range Boiling Point: Water solubility
- liquid
 viscous, liquid
 GREEN
 very faint
 not applicable
 not applicable
 immiscible
- Evapouration rate Specific Gravity Bulk density Vapour pressure Vapour density pH
- Not established
 Not determined
 Not applicable
 Not determined
 Not determined
 Not applicable

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	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., Avoid contact with acetal homopolymers and acetal copolymers during processing.	
Hazardous decomposition products	:	Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), hydrogen chloride (HCl), other hazardous materials, and smoke are all possible. Prolonged heating may result in product degradation. As a general rule of thumb, degradation begins to occur after one hour at 177 $^{\circ}$ C (350 $^{\circ}$ F), after 10 minutes at 204 $^{\circ}$ C (400 $^{\circ}$ F), and within 5 minutes at 232 $^{\circ}$ C (450 $^{\circ}$ F).	
1	1 7	TOVICOL OCICAL INFORMATION	+

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:

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.

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Bioaccumulation Potential : Additional advice :	Environmental toxicity has not been established for this mixture as a whole. no data available no data available 3. DISPOSAL CONSIDERATIONS 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 has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations.
Additional advice : 13 Product :	no data available 3. DISPOSAL CONSIDERATIONS 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 has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal,
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Contaminated packaging :	material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal,
14	4. TRANSPORT INFORMATION
U.S. DOT Classification :	Refer to specific regulation.
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 Hazardous Subs	stances (40 CFR 302)
not applicable	
California Proposition : 65	Not applicable
SARA Title III Section 302 Extreme	ely Hazardous Substance

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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

Canadian Regulations:

National Pollutant Release Inventory (NPRI)			
Chemical Name	CAS-No.	Weight	NPRI ID#
		percent	
Bis (2-ethylhexyl) adipate	103-23-1	5.00 - 10.00	
Miscellaneous Zinc Compounds	0-05-5	0.10 - 1.00	241

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

CAS-No.	
103-23-1	

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

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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.