MATERIAL SAFETY DATA SHEET Geon™ DM681A Gray 9501-006 (Microban)

Version Number 1.0 Revision Date 06/22/2012

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1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION 8155 Cobb Center Drive, Kennesaw, GA 30152

Telephone Emergency telephone	:	1 (440) 930-1000 or 1 (866) POLYONE CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).
Product name	:	Geon [™] DM681A Gray 9501-006 (Microban)
Product code	:	FO20029768
Chemical Name	:	Mixture
CAS-No.	:	Mixture
Product Use	:	Industrial Applications

2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

Components	CAS-No.	Weight percent
Titanium dioxide	13463-67-7	0.1 - 1
Calcium carbonate	1317-65-3	5 - 10

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. FIRE-FIGHTING MEASURES
Flash point	: no data available
Flammable Limits Upper explosion limit Lower explosion limit Autoignition 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. Refer to Section 13 of this MSDS for proper disposal methods.
	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. EXPOSU	JRE 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:
Calcium carbonate	5 mg/m3	PEL:	Respirable fraction.	OSHA Z1
	15 mg/m3	PEL:	Total dust.	OSHA Z1
	10 mg/m3	Time Weighted Average		MX OEL
		(TWA):		
	20 mg/m3	Short Term Exposure Limit		MX OEL
		(STEL):		
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



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Form Appearance Colour Odour Melting point/range Boiling Point: Water solubility	 liquid viscous, liquid GREY very faint not applicable not applicable immiscible 	Evaporation rate Specific Gravity Bulk density Vapour pressure Vapour density pH	 Not established Not determined Not applicable Not determined Not determined Not applicable
	10. STABILITY AN	DREACTIVITY	
Stability	: Stable		
Hazardous Polymerization	: Will not occur.		
Conditions to avoid	: Keep away from or decomposition, do	xidizing agents and open fl not overheat.	ame. To avoid thermal
Incompatible Materials		strong acids and oxidizing olymers and acetal copolyr	
Hazardous decomposition products	(NOx), hydrogen c smoke are all possi degradation. As a after one hour at 17	O2), carbon monoxide (CC hloride (HCl), other hazard ble. Prolonged heating ma general rule of thumb, deg 77 °C (350 °F), after 10 mi hinutes at 232 °C (450 °F).	dous materials, and ay result in product radation begins to occur nutes at 204 °C (400

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.
1317-65-3	Calcium carbonate	Irritant	Eyes, Skin.
		Systemic effects	Eyes, Skin, 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.



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NTP Carcinogen Classification 1 - The component is known to 2 - The component is reasonable	be a	human carcinogen. ticipated to be a human carcinogen.
	12	2. ECOLOGICAL INFORMATION
Persistence and degradability	:	Not readily biodegradable.
Environmental Toxicity	:	Environmental toxicity has not been established for this mixture as a whole.
Bioaccumulation Potential	:	no data available
Additional advice	:	no data available
	1.	3. DISPOSAL CONSIDERATIONS
Product	:	Where possible recycling is preferred to disposal or incineration. Th 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.
	1	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	Sub	stances (40 CFR 302)

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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

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

Chemical Name	CAS-No.	Weight percent	NPRI ID#
Miscellaneous Zinc Compounds	0-05-5	0.10 - 1.00	241

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

CAS-No.	
112-80-1	

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.