MATERIAL SAFETY DATA SHEET GEON 87416 BEIGE (pricing only)

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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	:	GEON 87416 BEIGE (pricing only)
Product code	:	VC10007489
Chemical Name	:	Mixture
CAS-No.	:	Mixture
Product Use	:	Industrial Applications

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight percent
Manganese antimony titanium brown rutile (C.I. Pigment Yellow 164)	68412-38-4	1 - 5
Calcium carbonate	1317-65-3	1 - 5
Calcium stearate	1592-23-0	1 - 5
Chromium (III) oxide	1308-38-9	1 - 5
Rutile, antimony chromium buff	68186-90-3	1 - 5
Titanium dioxide	13463-67-7	5 - 10

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

This mixture has not been evaluated as a whole. All ingredients are bound and potential for hazardous exposure as shipped is minimal. However, some vapors may be released upon heating or processing. 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. May emit Hydrogen Chloride (HCl) or Carbon Monoxide (CO) under fire conditions.

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.

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Eyes	: Resin particles, like other inert materials, are mechanically irritating to
Skin	eyes. : 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.
	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 o 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 a 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	: not applicable
Flammable Limits	
Upper explosion limit	: not applicable
Lower explosion limit	: not applicable
Auto-ignition 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
Unusual Fire/Explosion Hazards	 contaminants. May emit Hydrogen Chloride (HCl) or Carbon Monoxide (CO) unde 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	: Should not be released into the environment. The product should no be allowed to enter drains, water courses or the soil.

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		plastic, cardboard or metal containers for disposal.
		7. HANDLING AND STORAGE
Handling	:	Take measures to prevent the build up of electrostatic charge. 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. Keep in a dry, cool place.
8. EX	POSU	RE CONTROLS/PERSONAL PROTECTION
Respiratory protection	:	No personal respiratory protective equipment normally required. If dusty conditions occur wear appropriate respiratory protection.
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. This product may contain residual vinyl chloride monomer (VCM) (CAS number 75-01-4) below 8.5 ppm (0.00085%). It is unlikely, under normal working conditions with adequate ventilation, that the exposure limits will be exceeded for residual VCM. However, the user should take the necessary precautions (e.g. mechanical ventilation, local exhaust ventilation, air-monitoring, respiratory protection, etc.) to ensure airborne levels of any vapors including VCM or dusts that may be released during heating or processing are below regulated levels.
Engineering measures	:	Heat only in areas with appropriate exhaust ventilation. Provide appropriate exhaust ventilation at machinery.
Exposure limit(s)		

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Components	Value	Exposure time	Exposure type	List:
Manganese antimony titanium brown rutile (C.I. Pigment Yellow 164)	1 mg/m3	Recommended exposure limit (REL):	Fume. as Mn	NIOSH
	3 mg/m3	Short Term Exposure Limit (STEL):	Fume. as Mn	NIOSH
	5 mg/m3	Ceiling Limit Value:	as Mn	OSHA Z1
	5 mg/m3	Ceiling Limit Value:	as Mn	OSHA Z1A
	0.5 mg/m3	Time Weighted Average (TWA):	as Sb	ACGIH
	0.5 mg/m3	Recommended exposure limit (REL):	as Sb	NIOSH
	0.5 mg/m3	PEL:	as Sb	OSHA Z1
	0.5 mg/m3	Time Weighted Average (TWA):	as Sb	OSHA Z1A
	0.5 mg/m3	Time Weighted Average (TWA):	as Sb	MX OEL
Calcium carbonate	5 mg/m3	PEL:	Respirable fraction.	OSHA Z1
	15 mg/m3	PEL:	Total dust.	OSHA Z1
	10 mg/m3	Time Weighted Average (TWA):		MX OEL
	20 mg/m3	Short Term Exposure Limit (STEL):		MX OEL
Calcium stearate	10 mg/m3	Time Weighted Average (TWA):		ACGIH
Chromium (III) oxide	0.5 mg/m3	Recommended exposure limit (REL):	as Cr	NIOSH
	0.5 mg/m3	PEL:	as Cr	OSHA Z1
Rutile, antimony chromium buff	0.5 mg/m3	Recommended exposure limit (REL):	as Cr	NIOSH
	0.5 mg/m3	PEL:	as Cr	OSHA Z1
	0.5 mg/m3	Time Weighted Average (TWA):	as Sb	ACGIH
	0.5 mg/m3	Recommended exposure limit (REL):	as Sb	NIOSH
	0.5 mg/m3	PEL:	as Sb	OSHA Z1
	0.5 mg/m3	Time Weighted Average (TWA):	as Sb	OSHA Z1A
	0.5 mg/m3	Time Weighted Average (TWA):	as Sb	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





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	0 mg/m3	Short Term Exposure L (STEL):	imit as T	1	MX OEL
). PHYSIC	CAL AND CHEMICAL	PROPERTIES		
Form Appearance Colour Odour Melting point/range Boiling Point: Water solubility	: TAN : very : Not	ts, powder S I B faint V determined V pplicable p	vapouration rate pecific Gravity ulk density apour pressure apour density H	: No : No : not : not	t applicable t determined t established applicable applicable applicable
	10. 5	STABILITY AND REA	CTIVITY		
Stability	: T	he product is stable if sto	red and handled as	prescribe	d.
Hazardous Polymerization	: V	Vill not occur.			
Conditions to avoid		Leep away from oxidizing ecomposition, do not ove		ame. To	avoid thermal
Incompatible Materials	: Incompatible with strong acids and oxidizing agents., Avoid with acetal homopolymers and acetal copolymers during pro				
Hazardous decomposition products	(] P (2 p	Carbon dioxide (CO2), car NOx), other hazardous ma rolonged heating (approx 200 °C) or short term heat roduct decomposition and ydrogen chloride.	aterials, and smoke imately 30 minutes ing at 482 °F (250	are all po or more) °C) may	ossible. above 392 °F result in

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
68412-38-4	Manganese antimony	Irritant	Eyes, Skin.
	titanium brown rutile (C.I.		
	Pigment Yellow 164)		
1317-65-3	Calcium carbonate	Irritant	Eyes, Skin.
		Systemic effects	Eyes, Skin, Respiratory
			system.
1308-38-9	Chromium (III) oxide	Irritant	Eyes, Skin.
		sensitizer	Skin.

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68186-90-3	Rutile, antimony chromium buff	Irritant	Eyes, Skin, Respiratory system.
13463-67-7	Titanium dioxide	Systemic effects	Respiratory system.

LC50 / LD50

This product contains the following components which, in their pure form, have the following toxicity data:

1	CAS-No	Chemical Name	Route	Value	Species
	CAS-NO.	Chemical Name	Route	value	species
	1592-23-0	Calcium stearate	Oral LD50	> 10 gm/kg	rat

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
: Not readily biodegradable.
: Adverse ecological impact is not known or expected under normal use.
: no data available
: not applicable
13. DISPOSAL CONSIDERATIONS
: 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.
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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	: Not regulated for transportation.
IMO/IMDG (maritime)	: Not regulated for transportation.
	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)

Chemical Name	CAS-No.		RQ for
Chromium (III)	1308-38-9	010 lbs	Mixture/Product 696 LB
oxide	1500 50 7	010105	070 EB

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
MANGANESE COMPOUNDSMANGANESE	68412-38-4	1.00 - 5.00
COMPOUNDSANTIMONY COMPOUNDS		

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Chemical Name	CAS-No.	Weight percent
CHROMIUM III COMPOUNDSCHROMIUM	1308-38-9	1.00 - 5.00
COMPOUNDS		
CHROMIUM III COMPOUNDSCHROMIUM III	68186-90-3	0.10 - 1.00
COMPOUNDSANTIMONY		
COMPOUNDSCHROMIUM COMPOUNDS		

Canadian Regulations:

National Pollutant Release Inventory (NPRI)			
Chemical Name	CAS-No.	Weight	NPRI ID#
		percent	
Manganese antimony titanium brown rutile (C.I.	68412-38-4	1.00 - 5.00	
Pigment Yellow 164)			
		1.00 - 5.00	
Chromium (III) oxide	1308-38-9	1.00 - 5.00	
Rutile, antimony chromium buff	68186-90-3	0.10 - 1.00	

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

CAS-No.	
68412-38-4	
1308-38-9	
68186-90-3	
	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	: Listed
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,

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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.