MATERIAL SAFETY DATA SHEET **GEON 87210 BROWN 3**

Version Number 1.2 Revision Date 03/12/2014

Page 1 of 8 Print Date 3/19/2014

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 87210 BROWN 3
Product code	:	VC10003728
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
Calcium stearate	1592-23-0	1 - 5
Calcium carbonate	471-34-1	1 - 5
Rutile, antimony chromium buff	68186-90-3	1 - 5
Iron chromite brown spinel	12737-27-8	1 - 5

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.
Eyes	: Resin particles, like other inert materials, are mechanically irritating to eyes.

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MATERIAL SAFETY DATA SHEET **GEON 87210 BROWN 3**

Version Number 1.2 Revision Date 03/12/2014 Page 2 of 8 Print Date 3/19/2014

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.
	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 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	: not applicable
Flammable Limits Upper explosion limit Lower explosion limit Auto-ignition temperature Suitable extinguishing media Special Fire Fighting Procedures Unusual Fire/Explosion	 not applicable not applicable 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) unde
Hazards	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 not be allowed to enter drains, water courses or the soil.

POLYONE CORPORATION



MATERIAL SAFETY DATA SHEET **GEON 87210 BROWN 3**

Version Number 1.2 Revision Date 03/12/2014 Page 3 of 8 Print Date 3/19/2014

Handling	:	7. HANDLING AND STORAGE 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
Storage	:	these materials. 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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MATERIAL SAFETY DATA SHEET **GEON 87210 BROWN 3**

Version Number 1.2 Revision Date 03/12/2014 Page 4 of 8 Print Date 3/19/2014

Components	Value	Exposure time	Exposure type	List:
Calcium stearate	10 mg/m3	Time Weighted Average (TWA):		ACGIH
Calcium carbonate	5 mg/m3	PEL:	Respirable fraction.	OSHA Z1
	15 mg/m3	PEL:	Total dust.	OSHA Z1
	5 mg/m3	Time Weighted Average (TWA):	Respirable fraction.	OSHA Z1A
	15 mg/m3	Time Weighted Average (TWA):	Total dust.	OSHA Z1A
	10 mg/m3	Time Weighted Average (TWA):		MX OEL
	20 mg/m3	Short Term Exposure Limit (STEL):		MX OEL
	5 mg/m3	Recommended exposure limit (REL):	Respirable.	NIOSH
	10 mg/m3	Recommended exposure limit (REL):	Total	NIOSH
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
	20 mg/m3	Short Term Exposure Limit (STEL):	as Ti	MX OEL
Iron chromite brown spinel	0.5 mg/m3	Recommended exposure limit (REL):	as Cr	NIOSH
	0.5 mg/m3	PEL:	as Cr	OSHA Z1

9. PHYSICAL AND CHEMICAL PROPERTIES

Form Appearance Colour Odour Melting point/range solid
pellets, powder
BROWN
very faint
Not determined

Evapouration rate Specific Gravity Bulk density Vapour pressure Vapour density Not applicable
Not determined
Not established
not applicable
not applicable

MATERIAL SAFETY DATA SHEET **GEON 87210 BROWN 3**

Version Number 1.2 Revision Date 03/12/2014

Boiling Point: Water solubility	not applicable pH : insoluble	not applicable
	10. STABILITY AND REACTIVITY	
Stability	: The product is stable if stored and handled as presc	ribed.
Hazardous Polymerization	: Will not occur.	
Conditions to avoid	: Keep away from oxidizing agents and open flame. decomposition, do not overheat.	To avoid thermal
Incompatible Materials	: Incompatible with strong acids and oxidizing agent with acetal homopolymers and acetal copolymers d	
Hazardous decomposition products	: Carbon dioxide (CO2), carbon monoxide (CO), oxi (NOx), other hazardous materials, and smoke are al Prolonged heating (approximately 30 minutes or m (200 °C) or short term heating at 482 °F (250 °C) n product decomposition and evolution of carbon mo hydrogen chloride.	ll possible. ore) above 392 °F nay result in

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.
471-34-1	Calcium carbonate	Irritant	Eyes, Skin.
68186-90-3	Rutile, antimony	Irritant	Eyes, Skin, Respiratory
	chromium buff		system.
12737-27-8	Iron chromite brown	Irritant	Eyes, Skin, Respiratory
	spinel		system.

LC50 / LD50

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

CAS-No.	Chemical Name	Route	Value	Species
1592-23-0	Calcium stearate	Oral LD50	> 10 gm/kg	rat
471-34-1	Calcium carbonate	Oral	6,450	ratratmouse
		LD50Oral	mg/kg6,450	
		LD50Oral	mg/kg6,450	
		LD50	mg/kg	

Carcinogenicity



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Page 5 of 8 Print Date 3/19/2014

MATERIAL SAFETY DATA SHEET **GEON 87210 BROWN 3**

Version Number 1.2 Revision Date 03/12/2014 Page 6 of 8 Print Date 3/19/2014

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:

Iron chromite brown spinel 12737-27-8 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
Persistence and degradability	: Not readily biodegradable.
Environmental Toxicity	: Adverse ecological impact is not known or expected under normal use.
Bioaccumulation Potential	: no data available
Additional advice	: not applicable
	13. DISPOSAL CONSIDERATIONS
Product Contaminated packaging	 Like most thermoplastic plastics the product can be recycled. Wher 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.
	14. TRANSPORT INFORMATION
	14. TRANSFORT INFORMATION
U.S. DOT Classification	: Not regulated for transportation.
ICAO/IATA	: Not regulated for transportation.

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MATERIAL SAFETY DATA SHEET **GEON 87210 BROWN 3**

Version Number 1.2 Revision Date 03/12/2014 Page 7 of 8 Print Date 3/19/2014

	15. REGULA	ATORY INFOR	RMATION	1	
JS Regulations:					
OSHA Status	: Classified	l as hazardous ba	used on cor	nponents.	
TSCA Status	: All comp TSCA Inv	oonents of this pr ventory.	oduct are l	isted on or exe	empt from the
JS. EPA CERCLA Hazardo	us Substances (40	CFR 302)			
not applicable					
California Propositio	n : Not appli	cable			
	-		product is	Not Applicable	e under this regul
SARA Title III Section 302 I	e identified under		product is	Not Applicable	e under this regul
SARA Title III Section 302 I Jnless specific chemicals are SARA Title III Section 313 ⁷ Jnless specific chemicals are	e identified under Foxic Chemicals:	this section, this	product is	Not Applicable	e under this regula
SARA Title III Section 302 I Jnless specific chemicals are SARA Title III Section 313 ⁷ Jnless specific chemicals are Chemical Name CHROMIUM III COMPO COMPOUNDSANTIMON	e identified under Foxic Chemicals: e identified under UNDSCHROMIU	this section, this		Not Applicable Weigh	e under this regulant percent
SARA Title III Section 302 I Jnless specific chemicals are SARA Title III Section 313 ⁷ Jnless specific chemicals are <u>Chemical Name</u> CHROMIUM III COMPC	e identified under Foxic Chemicals: e identified under UNDSCHROMIU NY JM COMPOUND	this section, this this section, this JM III SS	product is CAS-No.	Not Applicable Weigh 3 0.10 -	e under this regulant <u>nt percent</u> - 1.00
SARA Title III Section 302 I Jnless specific chemicals are SARA Title III Section 313 ⁷ Jnless specific chemicals are Chemical Name CHROMIUM III COMPO COMPOUNDSANTIMON COMPOUNDSCHROMII CHROMIUM III COMPO	e identified under Foxic Chemicals: e identified under UNDSCHROMIU NY JM COMPOUND	this section, this this section, this JM III SS	product is CAS-No. 68186-90-	Not Applicable Weigh 3 0.10 -	e under this regulant <u>nt percent</u> - 1.00
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SARA Title III Section 302 I Jnless specific chemicals are SARA Title III Section 313 ⁷ Jnless specific chemicals are Chemical Name CHROMIUM III COMPO COMPOUNDSANTIMON COMPOUNDSCHROMIU CHROMIUM III COMPO COMPOUNDS COMPOUNDS Canadian Regulations: National Pollutant Re	e identified under Foxic Chemicals: e identified under UNDSCHROMIU VY JM COMPOUND UNDSCHROMIU	this section, this this section, this JM III DS JM	product is CAS-No. 68186-90- 12737-27-	Not Applicable Weigh 3 0.10 - 8 1.00 -	e under this regulant percent - 1.00 - 5.00

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MATERIAL SAFETY DATA SHEET GEON 87210 BROWN 3

Version Number 1.2 Revision Date 03/12/2014 Page 8 of 8 Print Date 3/19/2014

WHMIS Ingredient Disclosure List

CAS-No.
68186-90-3
12737-27-8

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, 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.