PolvOne

### MATERIAL SAFETY DATA SHEET

### Graham Red

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#### 1. PRODUCT AND COMPANY IDENTIFICATION

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

Telephone Emergency telephone	:	Product Stewardship (770) 271-5902 CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).
Product name	:	Graham Red
Product code	:	CC10101399
Chemical Name	:	Mixture
CAS-No.	:	Mixture
Product Use	:	Industrial Applications

#### 2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

Components	CAS-No.	Weight %
Iron oxide	1309-37-1	1 - 5
Titanium dioxide	13463-67-7	1 - 5
Calcium carbonate	1317-65-3	5 - 10

#### 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 Ingestion Eyes	<ul> <li>Resin particles, like other inert materials, can be mechanically irritating.</li> <li>May be harmful if swallowed.</li> <li>Resin particles, like other inert materials, are mechanically irritating to eyes.</li> </ul>
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       : None known.         Aggravated by Exposure:				
	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 see medical attention.			
	5. FIRE-FIGHTING MEASURES			
Flash point	: Not applicable			
Flammable Limits Upper explosion limit Lower explosion limit Autoignition temperature Suitable extinguishing media	<ul> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Carbon dioxide blanket, Water spray, Dry powder, Foam.</li> </ul>			
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. 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.			
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 1 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.			



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Storage

: Keep containers dry and tightly closed to avoid moisture absorption and contamination. Keep in a dry, cool place.

## 8. EXPOSURE 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	ate 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
Iron oxide	5 mg/m3	Time Weighted Average (TWA):	Respirable fraction.	ACGIH
	10 mg/m3	PEL:	Fume.	OSHA Z1
	5 mg/m3	Time Weighted Average (TWA):	as Fe	MX OEL
	10 mg/m3	Short Term Exposure Limit (STEL):	as Fe	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):	as Ti	MX OEL
	20 mg/m3	Short Term Exposure Limit (STEL):	as Ti	MX OEL

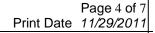
## 9. PHYSICAL AND CHEMICAL PROPERTIES

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Form	: Solid	Evaporation rate :	Not applicable
Appearance	: pellets	Specific Gravity :	Not determined
Color	: RED	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		

Stability	:	Stable.
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.
Hazardous decomposition products	:	Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible.

**10. STABILITY AND REACTIVITY** 

#### 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
1309-37-1	Iron oxide	Systemic effects	Respiratory system.
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.

2A - The component is probably carcinogenic to humans.

2B - The component is possibly carcinogenic to humans.

NTP Carcinogen Classifications:

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The component is known to be a human carcinogen.
 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
	13. DISPOSAL CONSIDERATIONS
Product	: 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.
Contaminated packaging	: Recycling is preferred when possible. The generator of waste materia 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 TSC. Inventory.
US. EPA CERCLA Hazardous	Substances (40 CFR 302)
Not applicable	

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California Proposition 65	: Not applicable
SARA Title III Section 302 E	xtremely Hazardous Substance
Unless specific chemicals are	identified under this section, this product is Not Applicable under this regulation
SARA Title III Section 313 T	oxic Chemicals:
Unless specific chemicals are	identified under this section, this product is Not Applicable under this regulation
Canadian Regulations:	
National Pollutant Rel	ease Inventory (NPRI)
Not applicable	
WHMIS Classification	n : D2A
WHMIS Ingredient Di	sclosure List
CAS-No. 1309-37-1	
DSL	: All components of this product are on the Canadian Domestic Substances List (DSL) or are exempt.
National Inventories:	
Australia AICS	: Listed
China IECS	: Listed
Europe EINECS	: Not determined
Japan ENCS	: Listed
Korea KECI	: Listed
Philippines PICCS	: Listed
	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.