MATERIAL SAFETY DATA SHEET **GREYSTONE**

Version Number 1.1 Revision Date 02/17/2005

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1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION 33587 Walker Road, Avon Lake, OH 44012

Telephone:Emergency telephone:number	Product Stewardship (770) 271-5902 CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).
Product name :	GREYSTONE
Product code :	CC10065113
Chemical Name :	Mixture
CAS-No. :	Mixture
Product Use :	Industrial Applications

2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

Components	CAS-No.	Weight %
Carbon black	1333-86-4	1 - 5
Iron oxide	1309-37-1	1 - 5
Rutile, antimony chromium buff	68186-90-3	5 - 10
Titanium dioxide	13463-67-7	10 - 30

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

Routes of Exposure:	: Inhalation, Ingestion, Skin contact	
Acute exposure		
Inhalation Ingestion Eyes	 Resin particles, like other inert materials, can be mechanically irritating. May be harmful if swallowed. Resin particles, like other inert materials, are mechanically irritating to eyes. 	
Skin	: Experience shows no unusual dermatitis hazard from routine handling.	
Chronic exposure	: Refer to Section 11 for Toxicological Information.	



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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 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, 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 seel medical attention.
	5. FIRE-FIGHTING MEASURES
Flash point	: Not applicable
Flammable Limits Upper explosion limit Lower explosion limit Autoignition temperature Suitable extinguishing media	 Not applicable Not applicable Not applicable Carbon dioxide blanket, water spray, dry powder, foamnone.
Special Fire Fighting Procedures Unusual Fire/Explosion Hazards	 Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants. 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 12 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:
Carbon black	3.5 mg/m3	Time Weighted Average	Total dust. as carbon	ACGIH
		(TWA):	black	
	3.5 mg/m3	PEL:	Total dust. as carbon black	OSHA Z1
Iron oxide	5 mg/m3	Time Weighted Average (TWA):	Dust and fume. as Fe	ACGIH
Rutile, antimony chromium buff	0.5 mg/m3	PEL:	as Sb	OSHA Z1
	0.5 mg/m3	Time Weighted Average (TWA):	as Cr	ACGIH
	0.5 mg/m3	Time Weighted Average (TWA):	as Sb	ACGIH
	0.5 mg/m3	PEL:	as Cr	OSHA Z1
Titanium dioxide	10 mg/m3	Time Weighted Average (TWA):		ACGIH
	15 mg/m3	PEL:	Total dust.	OSHA Z1

9. PHYSICAL AND CHEMICAL PROPERTIES

Form Appearance Color Odor : Solid: Pellets: GREY: Very faint

Evaporation rate Specific Gravity: Bulk density Vapor pressure Not applicableNot determinedNot establishedNot applicable



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Boiling	Point:	: N	ot determined ot applicable soluble	Vapour density pH		Not applicable Not applicable
		10). STABILITY AND RE	ACTIVITY		
Stability	y	:	Stable.			
Hazardo	ous Polymerization	:	Will not occur.			
Conditio	ons to avoid	:	Keep away from oxidizi decomposition, do not o	00	me.	To avoid thermal
Incomp	atible Materials	:	Incompatible with strong	g acids and oxidizing a	gen	ts.
Hazardo product	ous decomposition s	:	Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible.			

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
1333-86-4	Carbon black	Systemic effects	Eyes, Respiratory system.
1309-37-1	Iron oxide	Systemic effects	Respiratory system.
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:

CAS-No.	Chemical Name	Route	Value	Species
1333-86-4	Carbon black	Oral LD50	>15,400 mg/kg	rat
		Dermal LD50	> 3 gm/kg	rabbit

Additional Health Hazard Information:

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Carbon black 1333-86-4 Carcinogenicity: Many inhalation toxicologists believe that the tumor response observed in the referenced rat studies is species specific and does not correlate to human exposure. However, the IARC evaluation in Monograph Volume 65, issued in April 1996 concluded that, "There is sufficient evidence in experimental animals for the carcinogenicity of carbon black". Based on this evaluation, along with their evaluation of inadequate evidence of carcinogenicity in humans, IARC's overall evaluation is that "Carbon Black is possibly carcinogenic to humans (Group 2B). The IARC 2B listing only pertains to airborne, unbound carbon black particles of respirable size. Carbon Black has not been listed as a carcinogen by the National Toxicology Program (NTP) or the Occupational Safety and Health Administration (OSHA). The National Institute of Occupational Safety and Health (NIOSH) criteria document on carbon black recommends that only carbon black with PAH (polynuclear aromatic hydrocarbon) levels greater than 0.1% be considered suspect carcinogens.

Additional Health Hazard Information:

Rutile, antimony chromium buff 68186-90-3 Can cause eye irritation. Can cause skin irritation. Symptoms may include redness and burning of skin, and other skin damage. Additional symptoms of skin contact may include: antimony measles (a red, pimply rash).

	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 Contaminated packaging	 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. 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 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.

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	15. REGULATORY IN	NFORMATION		
S Regulations:				
OSHA Status	: Classified as hazard	ous based on comp	onents.	
TSCA Status	: All components of t Inventory.	his product are liste	d on or exemp	ot from the T
S. EPA CERCLA Hazardou	s Substances (40 CFR 302)			
Not applicable				
	. This product does no	ot contain a substan	ce listed by Ca	alifornia Pro
California Proposition 65	: This product does no			
65 ARA Title III Section 302 E	-	nce		
_	-	nce		
65 ARA Title III Section 302 E	xtremely Hazardous Substa	nce		
65 ARA Title III Section 302 E Not applicable ARA Title III Section 313 To	xtremely Hazardous Substa		Weight	%
65 ARA Title III Section 302 E Not applicable ARA Title III Section 313 To Chemical Name	xtremely Hazardous Substa	nce CAS-No. 68186-90-3	Weight 5.73	%
65 ARA Title III Section 302 E Not applicable ARA Title III Section 313 To Chemical Name	xtremely Hazardous Substa	CAS-No.		%
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65 ARA Title III Section 302 E Not applicable ARA Title III Section 313 To Chemical Name CHROMIUM III CON COMPOUNDS anadian Regulations: National Pollutant Rele	xtremely Hazardous Substa oxic Chemicals: MPOUNDSANTIMONY	CAS-No. 68186-90-3	5.73	
65 ARA Title III Section 302 E Not applicable ARA Title III Section 313 To Chemical Name CHROMIUM III CON COMPOUNDS anadian Regulations: National Pollutant Rele Chemical Name	xtremely Hazardous Substa oxic Chemicals: MPOUNDSANTIMONY	CAS-No. 68186-90-3 CAS-No.	5.73 Weight %	NPRI ID#
65 ARA Title III Section 302 E: Not applicable ARA Title III Section 313 To Chemical Name CHROMIUM III CON COMPOUNDS anadian Regulations: National Pollutant Rele Chemical Name Aluminum oxide	xtremely Hazardous Substa oxic Chemicals: MPOUNDSANTIMONY ease Inventory (NPRI)	CAS-No. 68186-90-3 CAS-No. 1344-28-1	5.73 Weight % 0.10	NPRI ID# 13
65 ARA Title III Section 302 E Not applicable ARA Title III Section 313 To Chemical Name CHROMIUM III CON COMPOUNDS anadian Regulations: National Pollutant Rele Chemical Name	xtremely Hazardous Substa oxic Chemicals: MPOUNDSANTIMONY ease Inventory (NPRI)	CAS-No. 68186-90-3 CAS-No.	5.73 Weight %	NPRI ID#

DSL

68186-90-3

:

All components of this product are on the Canadian Domestic Substances List (DSL) or are exempt.

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National Inventories:

Australia AICS	: Listed
China IECS	: Listed
Europe EINECS	: Listed
Japan ENCS	: Not determined
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, 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 when used in combination with any other materials and/or in any particular process or processing conditions.